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GRADUATE GUIDE

The information in the *Guide* is current as of June 1, 2018. The *Guide* is an official document of record and is reviewed and updated every year. Archived editions from past years are available in the Guide and Catalog Archive (<http://guide.wisc.edu/archive>). Students are responsible for meeting the academic requirements that were in effect at the time that they matriculated, including satisfactory progress and degree requirements. In situations where academic requirements have changed during a student's time of enrollment, the Graduate School and the academic program, together with the student, may elect to enforce requirements that are in the best interest of the student. University offices can provide current information about possible changes. The *Guide* is published only online; printed copies are not available.

ABOUT THE GRADUATE GUIDE

The Graduate *Guide* provides an overview of UW–Madison programs that offer graduate degrees, doctoral minors, graduate/professional certificates, and capstone certificates. Some major programs have identified sub-majors, known as named options. These official named options are approved by university governance, and appear on the transcript with degree conferral. Some programs also have unofficial specializations that do not appear on the transcript.

The *Guide* references program-specific policies, rules and regulations as well as Graduate School-level policies regarding admission, coursework, the awarding of degrees and certificates, and the general criteria governing satisfactory progress in a degree program.

UW–MADISON GRADUATE SCHOOL

The UW–Madison Graduate School confers the Master of Arts, Master of Science, Master of Accountancy, Master of Business Administration, Master of Music, Master of Engineering, Master of French Studies, Master of International Public Affairs, Master of Music, Master of Public Affairs, Master of Social Work, Master of Fine Arts, Doctor of Audiology, Doctor of Musical Arts, Doctor of Nursing Practice, Doctor of Occupational Therapy, and Doctor of Philosophy. Additionally, several programs that do not award graduate degrees may offer doctoral minors, specialist certificates, graduate/professional certificates, or capstone certificates.

The master's degree is conferred only upon completion of a coherent and focused program of advanced study.

The master of fine arts degree offers superior students advanced training and opportunities for creativity. The program is for the prospective professional artist and teacher in the fine arts at the college level and emphasizes creative work.

The doctor of philosophy, the doctor of nursing practice, the doctor of audiology, the doctor of occupational therapy, and the doctor of musical arts are the highest degrees conferred at UW–Madison. None are conferred solely as a result of any prescribed period of study, no matter how faithfully pursued. The Ph.D. degree is a research degree and is granted on evidence of general proficiency, distinctive attainment in a special field, and particularly on ability for independent investigation as demonstrated in a dissertation presenting original research or creative scholarship with a high degree of literary skill. The DMA degree is granted on evidence of a high degree of competence in performance, conducting, or composition. The DNP, OTD, and Au.D. degrees are clinical

doctorates granted on evidence of clinical knowledge and expertise in their respective disciplinary areas.

The Ph.D., DNP, Au.D., OTD and DMA degree programs must be rationally unified, with courses that must contribute to an organized program of study and research. Courses must be selected from groups embracing one principal subject of concentration called the **major** (see Degrees), and if required, from one or more related fields called the **doctoral minor**. The major field is normally coextensive with the work of a single department or with one of the subjects under which certain programs have been formally arranged. A major may be permitted to extend beyond the above limits with the prior approval of the Dean of the Graduate School. The doctoral minor is designed to represent a coherent body of work, taken as a graduate student, and should not be simply an after-the-fact ratification of a number of courses taken outside the major department.

Graduate School minimum credits and other requirements necessary to earn these degrees are listed in the Graduate School Minimum Degree Requirements and Satisfactory Progress (p. 15) section; each program may set degree requirements and expectations more rigorous than the Graduate School.

OTHER GRADUATE SCHOOL PUBLICATIONS

The Graduate School's Academic Policies and Procedures (<http://grad.wisc.edu/acadpolicy>) complements Graduate Student Life (<https://grad.wisc.edu/newstudents>) and provides information about Graduate School academic and administrative policies and procedures.

Graduate Student Life (<http://grad.wisc.edu/newstudents>), published by the Graduate School Office Communications Office, offers information about a wide range of topics related to the graduate experience, and advice about the university and community from a student's perspective. It is distributed electronically to all new graduate students before they arrive on campus.

GRADUATE STUDENT PROFESSIONAL DEVELOPMENT

The Graduate School Office of Professional Development (OPD) coordinates, develops, and promotes learning opportunities to foster the academic, professional, and life skills of graduate students and postdoctoral researchers and scholars.

Professional development topics include Individual Development Plans (<https://grad.wisc.edu/pd/idp>), communication, mentoring, grant writing, dissertation writing, career exploration, job search strategies, and more. OPD collaborates with the Writing Center, Libraries, DoIT Software Training for Students, Delta, career centers, and others to provide a wealth of resources and events tailored to the needs of UW–Madison graduate students.

The office developed and maintains DiscoverPD (<https://my.grad.wisc.edu/DiscoverPD>), an innovative tool for UW–Madison graduate students to advance their academic and professional goals.

DiscoverPD introduces nine areas (or "facets") of professional development, includes a self-assessment, and provides a customized report of areas of strength and weakness. The report comes with recommendations to help graduate students strengthen their ability within each area.

More information on campus resources for student professional development is available at Graduate Student Professional Development (<http://grad.wisc.edu/pd>). Students may keep up-to-date by reading GradConnections (<https://kb.wisc.edu/gsdminkb/page.php?id=68207>), the weekly newsletter for graduate students, and bookmarking the Events Calendar (<https://grad.wisc.edu/events>) to keep tabs on upcoming workshops of interest.

USEFUL LINKS FOR STUDENTS

University websites useful to students are listed below. In addition, most program entries in this catalog provide links to program and department websites.

Campus and Visitor Relations (<https://info.wisc.edu>)
 Center for Leadership and Involvement (<http://cfl.wisc.edu>)
 Committee on Institutional Cooperation (CIC) (<http://www.btaa.org/splash>)
 Office of Financial Aid (<https://financialaid.wisc.edu>)
 Graduate School (<http://grad.wisc.edu>)
Graduate School Academic Policies and Procedures (<http://grad.wisc.edu/acadpolicy>)
 Graduate Student Professional Development (<http://grad.wisc.edu/pd>)
 Graduate Funding Information (<http://grad.wisc.edu/studentfunding/prospective>)
Graduate Student Life (<http://grad.wisc.edu/newstudents>)
 Information Technology, Division of (DoIT) (<http://it.wisc.edu>)
 International Student Services (ISS) (<http://www.iss.wisc.edu>)
 Libraries (<http://www.library.wisc.edu>)
 McBurney Disability Resource Center (<http://mcburney.wisc.edu>)
 My UW–Madison (<http://my.wisc.edu>)
 Office of the Registrar (<https://registrar.wisc.edu>)
 Division of Student Life (<https://students.wisc.edu>)
 University Health Services (UHS) (<http://www.uhs.wisc.edu>)
 Wisconsin Union (<https://union.wisc.edu>)
 The Writing Center (<http://writing.wisc.edu>)

AFFIRMATIVE ACTION AND COMPLIANCE STATEMENT

The University of Wisconsin–Madison is committed to providing equal opportunity and equal access and to complying with all applicable federal and state laws and regulations and University of Wisconsin System and university non-discrimination policies and procedures. For information on all covered bases, the names of the Title IX and Americans with Disabilities Act Coordinators, and the processes for how to file a complaint alleging discrimination, please contact the Office of Compliance (<https://compliance.wisc.edu>). The Office of Compliance is located at 361 Bascom Hall, 500 Lincoln Drive, Madison WI 53706 and can be reached at Voice: 608-265-6018 (relay calls accepted); Fax: 608-263-4725; Email: uwcomplianceoffice@wisc.edu.

The following are the nondiscrimination bases for covering students and applicants for admission to the university; university employees and applicants for employment at the university; and those wishing to take part in university programs and activities, including visitors to campus.

STUDENTS/EDUCATIONAL PROGRAMS

- age
- ancestry
- color
- creed

- disability
- ethnicity (specifically involving harassment by UW employees)
- gender identity or expression
- marital or parental status
- national origin
- pregnancy
- race
- religion
- retaliation for opposing discrimination, making a complaint of discrimination or taking part in an investigation relating to discrimination
- sex
- sexual orientation
- or any other category protected by law, including physical condition or developmental disability as defined in Wisconsin Statutes§51.01(5).

EMPLOYEES/APPLICANTS

- age
- ancestry
- arrest record
- color
- conviction record
- creed
- disability
- ethnicity (specifically involving harassment by university employees)
- gender identity or expression
- genetic information including genetic testing
- honesty testing
- marital or parental status
- military service
- national origin
- pregnancy
- race
- religion
- retaliation for opposing discrimination, making a complaint of discrimination or taking part in an investigation relating to discrimination
- sex
- sexual orientation
- use or nonuse of lawful products off the employer's premises during nonworking hours,
- veteran status
- declining to attend a meeting or participate in any communication about religious matters or political matters, or any other category protected by law

VISITORS AND PROGRAM PARTICIPANTS/UNIVERSITY ACTIVITIES

- age
- ancestry
- color
- creed
- disability

- national origin
- race
- retaliation for making a complaint of discrimination, or taking part in an investigation relating to discrimination, or opposing discrimination
- sex
- sexual orientation

Also covered is any other non-discrimination category that may be subsequently added, even if not included in the above list, as a result of federal or State of Wisconsin court, legislative, or regulatory action, or action taken by UWS or the University.

INFORMATION FOR STUDENTS WITH DISABILITIES

The University of Wisconsin–Madison is committed to providing equal opportunity and equal access to people with disabilities who are members of the University community. The McBurney Disability Resource Center provides disability-related services and accommodations to undergraduate, graduate, professional, Special, and guest students. The center works closely with students and faculty on the provision of reasonable accommodations to ensure access to the learning environment. Common accommodations include extended time and/or small group environment for exams, class notetakers, sign language interpreting, real time and media captioning, and conversion of printed materials to an accessible format. McBurney staff members also collaborate with students and faculty to determine reasonable flexibility with regard to attendance, participation, and deadlines for disorders that fluctuate in severity over the course of enrollment. The center makes referrals to other campus offices or community resources for nonclassroom accommodations related to housing, transportation, personal care needs, and so on. Students should contact the center upon admission to begin the eligibility for services process. Early notice is essential in order to have accommodations in place prior to the start of the semester. For detailed information, see How to Become a McBurney Client (<http://mcburney.wisc.edu/students/howto.php>).

McBurney Disability Resource Center

702 West Johnson Street, Suite 2104
Madison, WI 53706
608-263-2741 (voice)
608-225-7956 (text)
608-265-2998 (fax)
mcburney@studentlife.wisc.edu
www.mcburney.wisc.edu (<http://www.mcburney.wisc.edu>)

ACCREDITATION

The University of Wisconsin–Madison is accredited by the:

Higher Learning Commission (<http://www.hlcommission.org>)
230 South Lasalle Street, Suite 7-500
Chicago, IL 60604
telephone 1-800-621-7440
www.hlcommission.org (<http://www.hlcommission.org>)

UW–Madison, which was first accredited in 1913, was last accredited in 2009, and will go through a reaccreditation process again in 2018–19.

See Mark of Affiliation (<http://guide.wisc.edu/undergraduate>).

Registration with the Minnesota Office of Higher Education: The University of Wisconsin–Madison is a public institution registered as

a "Private Institution" with the Minnesota Office of Higher Education pursuant to sections 136A.61 to 136A.71. Registration is not an endorsement of the institution. Credits earned at the institution may not transfer to all other institutions.

The information, policies, and rules contained herein are subject to change.

DEGREES/MAJORS

Filter Graduate Degrees (<http://guide.wisc.edu/mas>)

Explore Data Visualizations of Enrollment, Admissions, Funding, and Degree Data (https://dataviz.wisc.edu/views/GraduateSchoolExplorer/HomePage?.embed=y&.showAppBanner=false&.showShareOptions=true&.display_c)

SCHOOLS AND COLLEGES

College of Agricultural and Life Sciences
School of Business
Division of Continuing Studies
School of Education
College of Engineering
Gaylord Nelson for Environmental Studies
Graduate School
School of Human Ecology
Law School
College of Letters & Science
School of Medicine and Public Health
School of Nursing
School of Pharmacy
School of Veterinary Medicine

DISTANCE OR FLEXIBLE PROGRAMS

The university offers several degree and capstone certificate programs that are fully or partially available at a distance or that are flexible to working schedules with evening and/or weekend courses. To learn more about the graduate-level degrees and certificates offered in flexible and online formats, visit the Wisconsin Advance Your Career (<https://advanceyourcareer.wisc.edu>) portal.

OTHER PROFESSIONAL DEGREES

UW–Madison offers a number of post-baccalaureate professional degrees that are not administered by the Graduate School, but instead are solely supported by their home school.

Doctor of Juridical Science—SJD (<https://law.wisc.edu/grad/prospective/sjd/overview-sjd.html?>)

Doctor of Law—J.D. (<http://law.wisc.edu>)

Doctor of Medicine—M.D. (<http://www.med.wisc.edu/education/md-program/main/276>)

Doctor of Physical Therapy—DPT (<http://ortho.wisc.edu/Home/DoctorOfPhysicalTherapy.aspx>)

Doctor of Pharmacy—Pharm.D. (<https://pharmacy.wisc.edu/programs/pharmd>)

Doctor of Veterinary Medicine—DVM (<http://www.vetmed.wisc.edu/dvm-students>)

Master of Genetic Counseling—MGC (<http://www.med.wisc.edu/education/graduate-programs/genetic-counseling/main/26910>)

Master of Laws—LLM (<https://law.wisc.edu/grad/prospective/llm/overview-llm.html>)

Master of Laws—Legal Institutions—LLM (<https://law.wisc.edu/grad/prospective/llm-li>)

Master of Physician Assistant Studies—P.A. (<http://www.fammed.wisc.edu/pa-program>)

Master of Public Health—MPH (<https://mph.wisc.edu>)

DOCTORAL MINORS

Breadth is a required component of doctoral training at UW-Madison. Given there are multiple paths to breadth, the Graduate School leaves the choice of whether students achieve breadth through a minor or other means up to the specific graduate program. Most programs require students complete either an Option A (external) minor or an Option B (distributed) minor; those that don't require a minor can be found here (<https://kb.wisc.edu/gsadminkb/page.php?id=66795>). See Minors (<http://grad.wisc.edu/acadpolicy/#minors>) in the Graduate School *Academic Policies and Procedures* for minimum course requirements for the minor.

GRADUATE/PROFESSIONAL CERTIFICATES

Graduate/professional certificates are available to all degree-seeking graduate and professional students (GRAD, LAW, MED, PHARM, VMED careers). Graduate/professional certificate programs coordinate teaching and research among scholars active in interrelated disciplines. Consult the certificate program regarding recognition of program completion. Certificate programs monitor their own course and satisfactory progress requirements.

The Specialist Certificate represents work beyond the master's level. For more information, contact the program.

CAPSTONE CERTIFICATES

Capstone certificates allow individuals with a bachelor's degree to obtain additional professional skills and certification. Capstones do not lead to the conferral of a degree, but do appear on a student's UW-Madison transcript.

Capstone certificate students are admitted as University Special students through Adult Career and Special Student Services (ACSSS). ACSSS as the academic dean is responsible for issues related to student enrollment and the student's official record.

An ACSSS student services coordinator works with each department's capstone certificate coordinator on advising, admissions, enrollment eligibility, and program completion. Capstone certificates typically follow rules of the Graduate School (<https://grad.wisc.edu/acadpolicy>) (<https://grad.wisc.edu/acadpolicy/#enrollmentrequirements>) for tuition, credit limits, and grading.

- Actuarial Science, Capstone Certificate (<http://guide.wisc.edu/nondegree/capstone/actuarial-science-capstone-certificate>)
- Advanced GIS, Capstone Certificate (<http://guide.wisc.edu/nondegree/capstone/advanced-gis-capstone-certificate>)
- Bioinformatics, Capstone Certificate (<http://guide.wisc.edu/nondegree/capstone/bioinformatics-capstone-certificate>)
- Clinical and Community Outcomes, Capstone Certificate (<http://guide.wisc.edu/nondegree/capstone/clinical-community-outcomes-research-capstone-certificate>)

- Clinical Nurse Specialist – Adult/Gerontology, Capstone Certificate (<http://guide.wisc.edu/nondegree/capstone/clinical-nurse-specialist-adult-gerontology-capstone-certificate>)
- Clinical Nutrition, Capstone Certificate (<http://guide.wisc.edu/nondegree/capstone/clinical-nutrition-capstone-certificate>)
- Clinical Nutrition—Dietetic Internship, Capstone Certificate (<http://guide.wisc.edu/nondegree/capstone/clinical-nutrition-dietetic-internship-capstone-certificate>)
- Communication Sciences and Disorders, Capstone Certificate (<http://guide.wisc.edu/nondegree/capstone/communication-sciences-disorders-capstone-certificate>)
- Computer Sciences for Professionals, Capstone Certificate (<http://guide.wisc.edu/nondegree/capstone/computer-sciences-professionals-capstone-certificate>)
- Consumer Health Advocacy, Capstone Certificate (<http://guide.wisc.edu/nondegree/capstone/consumer-health-advocacy-capstone-certificate>)
- Data Analytics for Decision Making, Capstone Certificate (<http://guide.wisc.edu/nondegree/capstone/data-analytics-decision-making-capstone-certificate>)
- Foundations of Professional Development, Capstone Certificate (<http://guide.wisc.edu/nondegree/capstone/foundations-professional-development-capstone-certificate>)
- French Studies at the Graduate Level, Capstone Certificate (<http://guide.wisc.edu/nondegree/capstone/french-graduate-level-capstone-certificate>)
- Fundamentals of Clinical Research, Capstone Certificate (<http://guide.wisc.edu/nondegree/capstone/fundamentals-clinical-research-capstone-certificate>)
- Geographic Information Systems, Capstone Certificate (<http://guide.wisc.edu/nondegree/capstone/geographic-information-systems-capstone-certificate>)
- GIS Fundamentals, Capstone Certificate (<http://guide.wisc.edu/nondegree/capstone/gis-fundamentals-capstone-certificate>)
- Global Health, Capstone Certificate (<http://guide.wisc.edu/nondegree/capstone/global-health-capstone-certificate>)
- Infant, Early Childhood and Family Mental Health, Capstone Certificate (<http://guide.wisc.edu/nondegree/capstone/infant-early-childhood-family-mental-health-capstone-certificate>)
- International Politics and Practice, Capstone Certificate (<http://guide.wisc.edu/nondegree/capstone/international-politics-practice-capstone-certificate>)
- Leadership for Population Health Improvement, Capstone Certificate (<http://guide.wisc.edu/nondegree/capstone/leadership-population-health-improvement-capstone-certificate>)
- Nurse Educator, Capstone Certificate (<http://guide.wisc.edu/nondegree/capstone/nurse-educator-capstone-certificate>)
- Post-Graduate Psychiatric Nursing, Capstone Certificate (<http://guide.wisc.edu/nondegree/capstone/post-graduate-psychiatric-nursing-capstone-certificate>)
- Power Conversion and Control, Capstone Certificate (<http://guide.wisc.edu/nondegree/capstone/power-conversion-control-capstone-certificate>)
- User Experience Design, Capstone Certificate (<http://guide.wisc.edu/nondegree/capstone/user-experience-design-capstone-certificate>)

ADMISSIONS

The University of Wisconsin–Madison has offered graduate study for more than a century. Its advanced instruction actively involves graduate students in research. The faculty of more than 2,000 distinguished scholars and teachers, supported by an academic staff exceeding 6,000 confers graduate degrees in more than 160 fields of study.

As one of the nation's major research institutions, the university maintains extensive research facilities. More than 40 campus libraries, three museums, and numerous research centers support nearly 7,500 active local, national, and international research projects.

The Graduate School website (<http://grad.wisc.edu>) offers links to admission information, including program profiles and contacts, websites and the online application, funding resources, diversity, graduate student life and other resources.

Deadlines for applications, fellowships and other types of funding vary among programs. Requirements also vary; therefore, it is important to check program websites before applying. All transcripts are sent directly to the program. If applying to more than one program transcripts should be sent to each program. All transcripts become part of the university files and will not be returned. The application fee is set by the legislature and is nonrefundable.

When the Graduate School receives the application, the data are entered into a campuswide student administration system. The program performs the initial application review, and if desired, makes a positive admission recommendation to the Graduate School. Admission is based on demonstrated scholastic ability, letters of recommendation, the statement of purpose/reasons for graduate study, and in most programs, scores on standardized tests, such as the GRE, TOEFL or IELTS (for international students) and GMAT for Business School applicants. Program requirements may be more rigorous than Graduate School requirements.

FINANCIAL SUPPORT

Financial support is available to many graduate students on campus and comes in the form of Graduate Assistantships (e.g., Teaching, Project, or Research Assistantships), Fellowships, and Traineeships. The best source of information about these types of financial support is the faculty and staff in academic programs. Decisions about most graduate assistantships, fellowships, and traineeships are made at the program level; however, some cross-campus graduate assistantships are listed at the main Student Job Center. The Graduate School's Office of Fellowships and Funding Resources (OFFR) provides general information and direction to students about funding opportunities on and off campus.

Graduate School Office of Fellowships and Funding Resources
231 Bascom Hall, 500 Lincoln Drive
Madison, WI 53706-1380
608-265-5522; 608-262-9597
grad.wisc.edu/studentfunding/ (<http://grad.wisc.edu/studentfunding/>)

ASSISTANTSHIPS

Student assistants are enrolled graduate students. There are several general categories of student assistant appointments at UW–Madison.

TEACHING ASSISTANTS (TA)

Teaching assistantships provide financial support to graduate students as well as opportunities for acquiring valuable teaching experience. A teaching assistant is a graduate student enrolled in the University of Wisconsin–Madison who is regularly assigned to teaching under the supervision of a faculty member or academic staff employee.

Teaching assistants who are awarded a minimum appointment of 33.33% receive full tuition remission and are eligible for comprehensive health insurance benefits. They are, however, still responsible for paying segregated fees.

For more information, visit *Types of Funding Available* (<https://grad.wisc.edu/funding>) and reference *Academic Policies and Procedures* (<https://grad.wisc.edu/acadpolicy/#projectassistant>).

PROGRAM ASSISTANTS (PA)

A program assistant or project assistant (PA) is a graduate student enrolled in the University of Wisconsin System who is assigned to conduct research, training, administrative responsibilities, under the supervision of a faculty or academic staff member, primarily for the benefit of the university.

Program/project assistants are included in a labor agreement between the state of Wisconsin and the Teaching Assistants Association.

Program/project assistants who are awarded a minimum appointment of 33.33% receive full tuition remission and are eligible for comprehensive health insurance benefits. They are, however, still responsible for paying segregated fees.

For more information, visit *Types of Funding Available* (<https://grad.wisc.edu/funding>) and reference *Academic Policies and Procedures* (<https://grad.wisc.edu/acadpolicy/#projectassistant>).

RESEARCH ASSISTANTS (RA)

A research assistant (RA) must be a graduate student working toward a master's or Ph.D. degree. The main function of a research assistantship is to further the education and training of the student, through the individual's course of study and research directly applicable to his/her thesis or dissertation.

Research assistants who are awarded a minimum appointment of 33.33% receive full tuition remission and are eligible for comprehensive health insurance benefits. They are, however, still responsible for paying segregated fees.

For more information, visit *Types of Funding Available* (<https://grad.wisc.edu/funding>) and reference *Academic Policies and Procedures* (<https://grad.wisc.edu/acadpolicy/#researchassistant>).

FELLOWSHIPS ADMINISTERED BY THE GRADUATE SCHOOL

The Graduate School administers a number of university-funded fellowships for different purposes and in different disciplines. For example, some fellowships are awarded by division, while others are offered by school or college. Applicants do not apply directly to the Graduate School for fellowship support. Academic programs nominate their most competitive students for these university-wide awards.

Fellowships may be awarded for a semester, academic (nine-month), or annual (12-month) tenure. Stipends vary according to the type of award.

In 2014-2015, fellowship awards ranged from \$6,455 for summer support up to \$25,820 for 12 months. These awards provide for payment of tuition and fees and include eligibility for comprehensive health insurance benefits.

Federal or national fellowships currently administered by the Graduate School include: Ford Foundation Predoctoral and Dissertation Fellowships, National Physical Science Consortium (NPSC) Fellowships, National Science Foundation (NSF) Graduate Fellowships, Charlotte Newcombe Fellowships, Spencer Dissertation Fellowships, CIC–Smithsonian Institution Fellowships, Soil Science Research Council (SSRC) Fellowships, Mellon-Council for European Studies (CES) Fellowships and ACLS/Mellon Dissertation Completion Fellowships. These programs require direct application by the student to the agency and generally have early fall deadlines.

FELLOWSHIPS FOR INTERNATIONAL TRAVEL, RESEARCH, AND STUDY

The International Fellowships Office, a unit of the International Institute, serves as a resource center and provides information and support to faculty, students, and staff interested in identifying international research grants, scholarships, and other funding opportunities. The International Fellowships Office also manages and coordinates a number of international fellowship competitions for UW–Madison faculty and students. Contact the International Institute at:

328 Ingraham Hall
(608) 262 9632
iris.wisc.edu/funding/ (<http://iris.wisc.edu/funding/>)

COLLEGE AND PROGRAM TRAINEESHIPS AND FELLOWSHIPS

Many colleges and programs have fellowships, scholarships, and traineeship awards for students at all stages of graduate study. Awards are made available from federal training programs, research grants, gifts and trusts, and special program funds. Information on these awards is available from the program.

OFFICE OF STUDENT FINANCIAL AID

The Office of Student Financial Aid assists students (U.S. citizens and Permanent Residents) whose personal and family resources are not adequate to cover the expenses involved in attending UW–Madison. For more information about processing financial aid forms to determine eligibility, part-time employment or information about scholarships and more, see the Office of Student Financial Aid website (<http://finaid.wisc.edu>).

Effective July 1, 2012, graduate students are no longer eligible for Federal Direct Subsidized loans. For more information about changes to federal direct loans for graduate students check [here](#).

Counseling is available to students who would like more information about financial assistance, debt management, or personal budgeting.

Office of Student Financial Aid
333 East Campus Mall, #9701
608/262-3060
finaid@finaid.wisc.edu
financialaid.wisc.edu/ (<https://financialaid.wisc.edu/>)

COUNCIL OF GRADUATE SCHOOLS POLICY RESOLUTION

Acceptance of an offer of financial aid (such as graduate scholarship, fellowship, traineeship, or assistantship) for the next academic year by an actual or prospective graduate student completes an agreement (based on a Resolution of the Council of Graduate Schools) which both the student and graduate school expect to honor. In those instances in which the student accepts the offer before April 15 and subsequently desires to withdraw, the student may submit in writing a resignation of the appointment at any time through April 15.

However, an acceptance given or left in force after April 15 commits the student not to accept another offer without first obtaining a written release from the institution to which a commitment has been made. Similarly, an offer by an institution after April 15 is conditional on presentation by the student of the written release from any previously accepted offer. It is further agreed by the institutions and organizations subscribing to the above Resolution that a copy of this Resolution should accompany every scholarship, fellowship, traineeship, and assistantship offer.

POLICIES AND REQUIREMENTS

The Graduate School sets minimum standards that must be met by all graduate students in the university. Continuation in the Graduate School is at the discretion of the major program, the Graduate School, and the major professor. The table of Graduate School Minimum Degree Requirements and Satisfactory Progress includes the minimum credits required for each type of degree program.

The requirements of most programs exceed the Graduate School minimum criteria. These additional requirements, referred to as Minimum Degree Requirements and Satisfactory Progress, are described in each major program entry in this catalog. Students are responsible for obtaining specific degree requirements from the program. Many programs publish a graduate student handbook, which provides details about graduate study, admissions criteria, faculty interests, and the curriculum.

GRADUATE SCHOOL MINIMUM DEGREE REQUIREMENTS AND SATISFACTORY PROGRESS

Schools/colleges, departments and programs may set more rigorous expectations and requirements than the Graduate School.

MASTER'S DEGREES

M.A., M.S., M.Acc., MBA, M.M., M.Eng., MFS, MIPA, MPA, MSW

Minimum Graduate Degree Credit Requirement ¹

30 credits

Minimum Graduate Residence Credit Requirement ¹

16 credits

Minimum Graduate Coursework (50%) Requirement ¹

At least 50% of credits applied toward the graduate degree credit requirement must be in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the

university's Course Guide (<http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle>).

Prior Coursework Requirements: Graduate Work from Other Institutions¹

For well-prepared advanced students, a student's program may decide to accept prior graduate coursework from other institutions. This coursework does not appear on a UW–Madison transcript nor count toward graduate career GPA. The Graduate School's minimum graduate residence requirement can be satisfied only with courses taken as a graduate student at UW–Madison. The only exception is graduate-level coursework taken as a CIC Traveling Scholar.

Prior Coursework Requirements: UW–Madison Undergraduate¹

For well-prepared advanced students, a student's program may decide to accept up to 7 credits numbered 300 or above of required or elective courses from the undergraduate work completed at UW–Madison toward fulfillment of minimum degree and minor credit requirements. However, this work would not be allowed to count toward the 50% graduate coursework minimum unless taken at the 700 level or above. This work will not appear on the graduate career portion of UW–Madison transcript nor count toward the graduate career GPA.

The Graduate School's minimum graduate residence credit requirement can be satisfied only with courses taken as a graduate student at UW–Madison.

Prior Coursework Requirements: UW–Madison University Special¹

After admission to a graduate program, the student's program may decide to accept up to fifteen University Special student credits as fulfillment of the minimum graduate residence, graduate degree, or minor credit requirements on occasion as an exception (on a case-by-case basis). UW–Madison coursework taken as a University Special student would not be allowed to count toward the 50% graduate coursework minimum unless taken at the 700 level or above. This work will not appear on the graduate career portion of UW–Madison transcript nor count toward the graduate career GPA.

For more information, please consult the Graduate School Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>).

Credits per Term Allowed¹

Up to 15 credits

Overall Graduate GPA Requirement¹

3.00

Other Grade Requirements¹

The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

For more information, please consult the Graduate School Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>).

Probation Policy¹

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

For more information, please consult the Graduate School Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>).

Advisor / Committee

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

For more information, please consult the Graduate School Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>).

Assessment and Examinations¹

Requirements determined by the program.

Time Constraints¹

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

For more information, please consult the Graduate School Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>).

Language Requirements¹

Each program sets its own language requirements. Some programs require competence in one or more languages before students can take preliminary examinations.

For more information, please consult the Graduate School Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>).

MASTER OF FINE ARTS DEGREE OR SPECIALIST CERTIFICATE

MFA, Specialist Certificate

Minimum Graduate Degree Credit Requirement¹

42 credits

Minimum Graduate Residence Credit Requirement¹

24 credits

Minimum Graduate Coursework (50%) Requirement¹

At least 50% of credits applied toward the graduate degree credit requirement must be in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (https://public.my.wisc.edu/portal/f/u12411s4/p/CourseGuide-Browse-Courses.u12411n31/detached/render.uP?pCm=view&pP_action=advancedSearch&pP_form-submit=true).

Prior Coursework Requirements: Graduate Work from Other Institutions¹

For well-prepared advanced students, a student's program may decide to accept prior graduate coursework from other institutions. This coursework does not appear on a UW–Madison transcript nor count toward graduate career GPA. The Graduate School's minimum graduate residence requirement can be satisfied only with courses taken as a

graduate student at UW–Madison. The only exception is graduate-level coursework take as a CIC Traveling Scholar.

Prior Coursework Requirements: UW–Madison Undergraduate¹

For well-prepared advanced students, a student's program may decide to accept up to 7 credits numbered 300 or above of required or elective courses from the undergraduate work completed at UW–Madison toward fulfillment of minimum degree and minor credit requirements. However, this work would not be allowed to count toward the 50% graduate coursework minimum unless taken at the 700 level or above. This work will not appear on the graduate career portion of UW–Madison transcript nor count toward the graduate career GPA.

The Graduate School's minimum graduate residence credit requirement can be satisfied only with courses taken as a graduate student at UW–Madison.

Prior Coursework Requirements: UW–Madison University Special¹

After admission to a graduate program, the student's program may decide to accept up to fifteen University Special student credits as fulfillment of the minimum graduate residence, graduate degree, or minor credit requirements on occasion as an exception (on a case-by-case basis). UW–Madison coursework taken as a University Special student would not be allowed to count toward the 50% graduate coursework minimum unless taken at the 700 level or above. This work will not appear on the graduate career portion of UW–Madison transcript nor count toward the graduate career GPA.

For more information, please consult the Graduate School Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>).

Credits per Term Allowed¹

Up to 15 credits

Overall Graduate GPA Requirement¹

3.00

Other Grade Requirements¹

The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

For more information, please consult the Graduate School Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>).

Probation Policy¹

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

For more information, please consult the Graduate School Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>).

Advisor

Every graduate student is required to have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies. An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor

To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

A committee often accomplishes advising for the students in the early stages of their studies.

For more information, please consult the Graduate School Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>).

Assessment and Examinations¹

Requirements determined by the program.

Time Constraints¹

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

For more information, please consult the Graduate School Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>).

Language Requirements¹

Each program sets its own language requirements. Some programs require competence in one or more languages before students can take preliminary examinations.

For more information, please consult the Graduate School Academic Policies and Procedures. (<https://grad.wisc.edu/acadpolicy>)

DOCTORAL DEGREES

Au.D., DMA, DNP, OTD, Ph.D.

Minimum Graduate Degree Credit Requirement¹

51 credits

Minimum Graduate Residence Credit Requirement¹

32 credits

Minimum Graduate Coursework (50%) Requirement¹

At least 50% of credits applied toward the graduate degree credit requirement must be in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (https://public.my.wisc.edu/portal/f/u12411s4/p/CourseGuide-Browse-Courses.u12411n31/detached/render.uP?pCm=view&pP_action=advancedSearch&pP_form-submit=true).

Prior Coursework Requirements: Graduate Work from Other Institutions¹

For well-prepared advanced students, a student's program may decide to accept prior graduate coursework from other institutions. This coursework does not appear on a UW–Madison transcript nor count toward graduate career GPA. The Graduate School's minimum graduate residence requirement can be satisfied only with courses taken as a graduate student at UW–Madison. The only exception is graduate-level coursework take as a CIC Traveling Scholar.

Prior Coursework Requirements: UW–Madison Undergraduate¹

For well-prepared advanced students, a student's program may decide to accept up to 7 credits numbered 300 or above of required or elective courses from the undergraduate work completed at UW–Madison toward fulfillment of minimum degree and minor credit requirements. However, this work would not be allowed to count toward the 50% graduate coursework minimum unless taken at the 700 level or above. This work

will not appear on the graduate career portion of UW–Madison transcript nor count toward the graduate career GPA. The Graduate School's minimum graduate residence credit requirement can be satisfied only with courses taken as a graduate student at UW–Madison.

Prior Coursework Requirements: UW–Madison University Special¹

After admission to a graduate program, the student's program may decide to accept up to fifteen University Special student credits as fulfillment of the minimum graduate residence, graduate degree, or minor credit requirements on occasion as an exception (on a case-by-case basis). UW–Madison coursework taken as a University Special student would not be allowed to count toward the 50% graduate coursework minimum unless taken at the 700 level or above. This work will not appear on the graduate career portion of UW–Madison transcript nor count toward the graduate career GPA.

For more information, please consult the Graduate School Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>).

Credits per Term Allowed¹

Up to 15 credits

Doctoral Minor/Breadth Requirements¹

The Graduate School requires doctoral programs to have a doctoral minor requirement to achieve breadth. Only those doctoral programs which have an accepted minor opt-out request on file may excuse their students from the doctoral minor requirement with alternate paths to breadth.

For more information, please consult the Graduate School Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>).

Overall Graduate GPA Requirement¹

3.00

Other Grade Requirements¹

The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

For more information, please consult the Graduate School Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>).

Probation Policy¹

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

For more information, please consult the Graduate School Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>).

Advisor

Every graduate student is required to have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies. An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor.

To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

A committee often accomplishes advising for the students in the early stages of their studies.

For more information, please consult the Graduate School Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>).

Assessment and Examinations¹

Doctoral students are required to take a comprehensive preliminary/oral examination after they have cleared their record of all Incomplete and Progress grades (other than research and thesis). Deposit of the doctoral dissertation in the Graduate School is required. Additional requirements are determined by the program.²

For more information, please consult the Graduate School Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>).

Time Constraints¹

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

For more information, please consult the Graduate School Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>).

Language Requirements¹

Each program sets its own language requirements. Some programs require competence in one or more languages before students can take preliminary examinations.

For more information, please consult the Graduate School Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>).

¹ Schools/colleges, departments, and programs may set more rigorous expectations and requirements than the Graduate School.

² References to preliminary/oral examinations and dissertations do not apply to clinical doctorate degrees (such as Au.D., DNP). Consult the program for specific requirements.

ACADEMIC CALENDAR

ACADEMIC CALENDAR

Establishment of the academic calendar (<https://www.secfac.wisc.edu/academic-calendar.htm>) for the University of Wisconsin–Madison falls within the authority of the faculty as set forth in Faculty Policies and Procedures. Construction of the academic calendar is subject to various rules and guidelines prescribed by the Board of Regents, the Faculty Senate and State of Wisconsin legislation. Approximately every five years, the Faculty Senate approves a new academic calendar which spans a future five-year period.

The current calendar was adopted by the Faculty Senate in September 2016.

ACCOUNTING AND INFORMATION SYSTEMS

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Business: Accounting, M.Acc. (p. 19)

PEOPLE

Faculty: Professors Warfield (chair), Covaleski, Johnstone, Matsumura, Mayhew, Nair, Wild; Associate Professor Laplante; Assistant Professors Allee, Barr-Pulliam, Gaertner, Griffith, Lynch, Steele, Thomas

BUSINESS: ACCOUNTING, M.ACC.

Founded in 1900, the School of Business established one of the first five business programs in the nation. That entrepreneurial spirit remains strong.

As a student in the School of Business, you will find yourself inspired by peers, staff, alumni, business leaders, and world-renowned faculty who are focused, collaborative, and engaged in every aspect of the student experience. You will join a highly ranked program that equips you to meet both academic and career challenges. Employers value School of Business graduates because of the comprehensive preparation this learning environment provides. Graduates possess highly sought-after general management and specialized expertise in business.

Joining collaborative, inspiring, trustworthy, and progressive WSB alumni, Business Badgers graduate prepared to lead their organizations to success and transform the world of business. Together Forward!

MASTER'S PROGRAMS IN ACCOUNTING

The Master of Accountancy in Business: Accounting (M.Acc.) degree is a two-year (54-credit) program designed for students with a bachelor degree in any major. Students build core accounting competencies in the first academic year and are then encouraged to pursue a paid internship during the summer between the first and second academic years. Students enhance their studies in the second academic year with advanced courses in accounting and other business disciplines. The degree helps students develop strong technical and professional accounting skills that qualify them to sit for the CPA exam. Careers as professional accountants in public accounting, financial institutions, government, industry, or nonprofit organizations are possible upon graduation. For additional information see the program website (<https://wsb.wisc.edu/programs-degrees/macc>).

The state of Wisconsin and most other states have passed legislation mandating that candidates who would like to earn their CPA license must have completed a 150-credit-hour program including at least the equivalent of an undergraduate major in accounting. Advanced degree options for completing these requirements exist at the University of Wisconsin–Madison. They are:

1. The IMAcc program in accounting, which leads to a BBA (bachelor of business administration) degree with an accounting major and

a master of accountancy degree. The BBA is 120 credits and the M.Acc. is 30 credits in this program. Students who are majoring in accounting apply for admission to this program during the junior year. Those who are admitted to the traditional IMAcc program must complete a required internship during the spring semester of the senior year (the program does offer some flexibility with the timing of the internship, as needed.) Students are encouraged to take the GMAT exam during the summer after their junior year.

2. Any undergraduate degree with an M.Acc. degree. The graduate-only master's degree program (GMAcc) does not require an undergraduate major in accounting or in business. There are 54 credits in this program, completed over two years. Students admitted to this program can complete an internship during the summer between the first and second years. The GMAT exam is required for admission.

ADMISSIONS

The admissions process begins during December each year for the following fall semester admission. The M.Acc. program does not require previous work experience. Students who are pursuing an undergraduate degree in accounting at the School of Business and wish to earn a master of accountancy degree should consider applying to the Integrated Master of Accountancy (IMAcc) program (<https://wsb.wisc.edu/programs-degrees/macc/imacc-how-to-apply>). Students who have already completed an undergraduate degree in something other than accounting, at any institution, may wish to consider applying to the Graduate Master of Accountancy (GMAcc) program (<https://wsb.wisc.edu/programs-degrees/macc/gmacc-how-to-apply>).

All applicants are required to have two recommendations completed via the online application system. In addition, applicants must submit a GMAT score to be considered for admission. The School of Business GMAT code is 79K-2S-23. The school does not share minimum GMAT score requirements. GRE scores will **not** be accepted in lieu of GMAT scores.

A Test of English as a Foreign Language is required for applicants whose native language is not English or whose full undergraduate instruction was not in English. Applicants who completed three or more years in an institution where the primary mode of instruction was English do not need to complete this requirement and may request a waiver on the application.

Students should direct the Educational Testing Service to forward their test results, taken within two years of the intended start term, to the University of Wisconsin–Madison (institution code: 1846). A minimum TOEFL score of 104 is required for consideration of admission into the program. International Financial Statements are only required of students **admitted** to the program.

It is not necessary to send official transcripts if applicants are unable to scan and upload transcripts to the online system. Applicants later admitted to the program will be asked to send the official transcripts.

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from

the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 54 credits

Minimum Residence Credit Requirement 24 credits

Minimum Graduate Coursework Requirement Half of degree coursework (27 credits out of 54 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Contact the program for information on required assessments and examinations.

Language Requirements Contact the program for information on any language requirements.

REQUIRED COURSES

M.Acc. students seek advanced preparation for careers in various aspects of accounting. The degree stresses in-depth study of accounting theory, auditing, taxation, information systems, applications, policy, and decision making. The program can be undertaken by students possessing an undergraduate accounting degree from UW–Madison or an undergraduate degree in a non-accounting field from any school.

The first year of the M.Acc. program emphasizes accounting and core business knowledge necessary to work in the accounting profession.

Students are encouraged to complete a paid internship during the summer between the first and second year of the program. The second year of the program is designed to build on the internship experience through in-depth study of accounting issues. The second-year curriculum for students pursuing the standard M.Acc. plan is as follows (30 total credits).

The M.Acc. program requires a minimum of 54 credits over two years.

The second year also provides students with some flexibility to promote breadth of knowledge across a number of business disciplines.

Code	Title	Credits
First Year		
<i>Fall</i>		
ACCT I S 340	Accounting Systems	3
ACCT I S 620	Fundamentals of Taxation	3
ACCT I S 701	Financial Reporting I	3
ACCT I S 710	Managerial Accounting	3
<i>Spring</i>		
ACCT I S 630	Audit and Assurance Services	3
ACCT I S 702	Financial Reporting II	3
GEN BUS 301	Business Law	3
Business Elective		3
Second Year		
Select a minimum of 4 from the following:		12
ACCT I S 603	Financial Statement Analysis	
ACCT I S 621	Corporate and Advanced Taxation	
ACCT I S 730	Advanced Assurance Services	
ACCT I S 706	Advanced Financial Reporting	
ACCT I S 770	Seminar in Financial Reporting Theory	
ACCT I S 771	Seminar in Strategic Cost Management and Performance Measurement	
ACCT I S 765	Contemporary Topics	

Complete a minimum of four and a maximum of six elective graduate courses	12-18
Total Credits	48-54

suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

NAMED OPTIONS (SUB-MAJORS)

A named option is a formally documented sub-major within an academic major program. Named options appear on the transcript with degree conferral.

- Business: Accounting: Tax, M.Acc. (p. 22)

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Department-sponsored funding is available on a competitive basis to all M.Acc. students. Students must have completed one year with the department before applying for an assistantship.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

No credits of graduate coursework from other institutions are allowed to satisfy requirements.

UW–Madison Undergraduate

Up to 6 credits from courses numbered 300 or above will be allowed to apply toward the minimum graduate degree credit requirement. Courses numbered 700 or above will be allowed to apply toward the minimum graduate coursework requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison University Special

No credits from the UW–Madison University Special student career are allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Understand the conceptual and technical knowledge foundations of financial accounting, managerial accounting, taxation, business law, and auditing.
2. Apply Generally Accepted Accounting Principles (GAAP) (and relevant assumptions, principles, and constraints) to prepare financial statements.
3. Understand that management accounting and control systems, providing financial and nonfinancial performance information, are integral to the successful design and implementation of an organizational strategy.
4. Interpret and validate business events and transactions through the lens of business processes and systems.
5. Demonstrate technical competence in income taxation of individuals, partnerships, corporations, and international organizations.
6. Identify the legal implications of their choices and how the law impacts their interactions with others in a business setting.
7. Understand how earning trust and demonstrating integrity as successful accounting professionals impacts businesses, contracts, and capital markets, as well as society at large.
8. Understand that leadership in the field of accounting is the consistent display and communication of respect, trust, expertise and adaptability within various business relationships and contexts.

9. Explain how to complete an audit from beginning to end, applying auditing standards, assessing risk, and gathering evidence.

10. Engage in effective written communication practices by crafting professional memos and reports that integrate research and analysis skills, technical information, and expert writing proficiency.

11. Understand how accounting is a global practice requiring knowledge of national and international standards, the examination of sociocultural impacts within business contexts, and the ability to leverage the advantages that diversity brings to an organization.

PEOPLE

Faculty: Professors Warfield (chair), Covaleski, Johnstone, Linsmeier, Matsumura, Mayhew, Nair, Wild; Associate Professor Laplante; Assistant Professors Barr-Pulliam, Gaertner, Griffith, Lynch, Steele, Thomas

ACCREDITATION

ACCREDITATION

AACSB International—The Association to Advance Collegiate Schools of Business (<http://www.aacsb.edu>)

Accreditation status: Accredited. Next accreditation review: 2021–2022.

BUSINESS: ACCOUNTING: TAX, M.ACC.

This is a named option in the Business: Accounting M.Acc. (p. 19)

The M.Acc. in Business: Accounting degree has an available named option in Tax, which is designed for students preparing for a career in tax. This option focuses on deep knowledge in a variety of tax topics, providing the qualifications for a career in the tax discipline in public accounting or industry.

For those pursuing a named option in Tax the second-year curriculum includes the following courses:

- Advanced Financial Reporting
- Corporate Taxation
- Research and Administrative Issues in Taxation
- Seminar in Current Taxation Topics
- Partnership Taxation
- Advanced Corporate Taxation
- International Taxation

ADMISSIONS

The admissions process begins during December each year for the following fall semester admission. The M.Acc. program does not require previous work experience. Students who are pursuing an undergraduate degree in accounting at the School of Business and wish to earn a master of accountancy degree should consider applying to the Integrated Master of Accountancy (IMAcc) program (<https://wsb.wisc.edu/programs-degrees/macc/imacc-how-to-apply>). Students who have already completed an undergraduate degree in something other than accounting,

at any institution, may wish to consider applying to the Graduate Master of Accountancy (GMacc) program (<https://wsb.wisc.edu/programs-degrees/macc/gmacc-how-to-apply>).

All applicants are required to have two recommendations completed via the online application system. In addition, applicants must submit a GMAT score to be considered for admission. The School of Business GMAT code is 79K-2S-23. The school does not share minimum GMAT score requirements. GRE scores will **not** be accepted in lieu of GMAT scores.

A Test of English as a Foreign Language is required for applicants whose native language is not English or whose full undergraduate instruction was not in English. Applicants who completed three or more years in an institution where the primary mode of instruction was English do not need to complete this requirement and may request a waiver on the application.

Students should direct the Educational Testing Service to forward their test results, taken within two years of the intended start term, to the University of Wisconsin–Madison (institution code: 1846). A minimum TOEFL score of 104 is required for consideration of admission into the program. International Financial Statements are only required of students **admitted** to the program.

It is not necessary to send official transcripts if applicants are unable to scan and upload transcripts to the online system. Applicants later admitted to the program will be asked to send the official transcripts.

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 54 credits

Minimum Residence Credit Requirement 24 credits

Minimum Graduate Coursework Requirement Half of degree coursework (27 credits out of 54 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Contact the program for information on required assessments and examinations.

Language Requirements Contact the program for information on any language requirements.

REQUIRED COURSES

The Tax named option stresses in-depth study of tax law in a variety of areas, including business tax, individual and estate tax planning, multijurisdictional tax issues, and tax administration. The courses for the Tax named option are closely integrated with law school tax offerings and in some cases, are cross-listed with the law school. In addition, the Tax degree named option requires additional courses in auditing, financial reporting theory, or strategic cost management.

The second-year curriculum for students who wish to pursue a named option in Tax includes the following courses:

Code	Title	Credits
ACCT I S 706	Advanced Financial Reporting	3
ACCT I S 621	Corporate and Advanced Taxation	3
ACCT I S 724	Research and Administrative Issues in Taxation	3

ACCT I S 772	Seminar in Current Taxation Topics	3
ACCT I S 722	Taxation of Pass-Through Entities	3
ACCT I S 765	Contemporary Topics	1-4
ACCT I S 725	Taxation of Cross-Jurisdictional Transactions	3

Students pursuing the named option in Tax must also complete a minimum of two courses from the first year of the M.Acc. in Business: Accounting degree listed here (p. 19) along with one business elective course.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

NAMED OPTION-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

No credits of graduate coursework from other institutions are allowed to satisfy requirements.

UW-Madison Undergraduate

Up to 6 credits from courses numbered 300 or above will be allowed to apply toward the minimum graduate degree credit requirement. Courses numbered 700 or above will be allowed to apply toward the minimum graduate coursework requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW-Madison University Special

No credits from the UW-Madison University Special student career are allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor.

An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Department sponsored funding is available on a competitive basis to all M.Acc. students. Students must have completed one year with the department before applying for an assistantship.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PEOPLE

Faculty: Professors Warfield (chair), Covaleski, Johnstone, Matsumura, Mayhew, Nair, Wild; Associate Professor Laplante; Assistant Professors Allee, Barr-Pulliam, Gaertner, Griffith, Lynch, Steele, Thomas

AFRICAN CULTURAL STUDIES

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- African Cultural Studies, Doctoral Minor (p. 24)
- African Cultural Studies, M.A. (p. 25)
- African Cultural Studies, Ph.D. (p. 30)

PEOPLE

FACULTY

To view full faculty profiles, visit our website (<https://african.wisc.edu/people/faculty>).

Matthew H. Brown: African screen media (particularly "Nollywood"), oral traditions, literature

Vlad Dima: French New Wave cinema, Francophone cinemas, film theory, television studies

Ainehi Edoro: Form, theory, and history of the African novel

Névine El Nossery: Francophone & Middle Eastern literature and culture, postcolonial studies

Samuel England: Classical Arabic poetry and prose, modern Arabic literature

Colleen Hamilton: Second language acquisition

Luis Madureira: Colonial and postcolonial studies, modernism, theater and performance

Mustafa Mustafa: Arabic

Tejumola Olaniyan: African, African American, and Caribbean literature and culture

Ronald Radano: Ethnomusicology, US Black music and its transnational circulation

Damon Sajjani: Africana cultural studies, social and political theory, HipHop studies

Katrina Daly Thompson: African discourse, linguistic ethnography, language pedagogy

EMERITUS FACULTY

Patrick Bennett

Dustin Cowell

Jo Ellen Fair

Magdalena Hauner

Linda Hunter

Edris Makward

Michael Schatzberg

Harold Scheub

Aliko Songolo

ACADEMIC STAFF

Bill Bach, Department Administrator

Toni Landis, Academic Advisor/Student Services Coordinator

AFRICAN CULTURAL STUDIES, DOCTORAL MINOR

The mission of the Department of African Cultural Studies is to provide research and teaching in the languages and expressive cultures of Africa and Africans around the world.

The department is the only one of its kind in the United States. It offers curricula leading to both the master of arts degree and the doctor of philosophy degree. Its students come from all over the world, including many African countries.

ADMISSIONS

Graduate students interested in completing the minor in African cultural studies should contact the director of graduate studies.

REQUIREMENTS

Code	Title	Credits
Required Courses:		
AFRICAN 700	Reading and Writing African Cultural Studies	3
	One graduate seminar	3

Two electives chosen in consultation with the Department's Director of Graduate Studies	6
Total Credits	12

Students must maintain a GPA of 3.5 or better in courses taken for the minor.

PEOPLE

FACULTY

To view full faculty profiles, visit our website (<https://african.wisc.edu/people/faculty>).

Matthew H. Brown: African screen media (particularly "Nollywood"), oral traditions, literature

Vlad Dima: French New Wave cinema, Francophone cinemas, film theory, television studies

Ainehi Edoro: Form, theory, and history of the African novel

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ACADEMIC STAFF

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Toni Landis, Academic Advisor/Student Services Coordinator

AFRICAN CULTURAL STUDIES, M.A.

The mission of the Department of African Cultural Studies is to provide research and teaching in the languages and expressive cultures of Africa and Africans around the world.

The department is the only one of its kind in the United States. It offers curricula leading to both the master of arts degree and the doctor of

philosophy degree. Its students come from all over the world, including many African countries.

ADMISSIONS

PREREQUISITES

Admission to the graduate program requires a bachelor's degree with substantial coursework related to the expressive cultures of Africa. Admitted students with an insufficient background in African cultural studies may be asked to complete additional coursework beyond the regular degree requirements. Applicants should have a minimum 3.0 GPA on a 4.0 grading scale or equivalent academic performance on other scales. The department will consider special cases, however, for probationary admission. If you have questions about your eligibility, please contact the graduate coordinator.

Admission into the Ph.D. program **requires** a master of arts in a closely related field (with the thesis or other substantive piece of graduate-level writing submitted as a writing sample).

APPLICATION REQUIREMENTS

All applicants to the program must apply online (<https://grad.wisc.edu/apply>) by 15 November. *Please note*, the \$75 application fee is due at the time of application (an additional \$6 will be charged to international students to cover processing). The department cannot review an applicant who has not met all Graduate School admissions requirements (<https://grad.wisc.edu/admissions/requirements>). Carefully review the instructions and other information the Graduate School provides; most of the admissions questions we receive relate to the Graduate School's requirements and are answered in their documentation.

As part of the online application process, you will be asked supplemental questions regarding your language and teaching experience and expected to **upload** the information listed below:

- **University Transcripts**

You must upload transcripts or academic records from **each** institution attended. You may upload *unofficial* copies for department review. If you are offered admission to the program, the Graduate School will request that you provide official copies of transcripts or academic records from each institution you have attended. These must be issued directly by the institutions with all official seals, stamps, and signatures. International academic records must be in the original languages and records in languages other than English accompanied by an official English translation. An accepted student may not matriculate or enroll for courses until the Graduate School has documented official transcript(s) matching or updating the application transcript(s).

- **TOEFL or IELTS Scores** (international applicants)

If your undergraduate institution did not conduct courses in English, you must complete either the Test Of English as a Foreign Language (TOEFL) or the International English Language Testing System exam (IELTS). The online application allows you to self-report scores, but we cannot consider your application until the Graduate School receives your official score report directly from the examination organization. Students who do not meet Graduate School guidelines for English proficiency (<https://grad.wisc.edu/admissions/requirements>) may be considered for admission, but will be required to complete assigned English language courses during their first year of study.

- **Purpose Statement**

Your statement of purpose should make clear that you understand the kinds of courses we offer (<http://african.wisc.edu/courses>) and the research interests of our faculty and substantiate how your own interests intersect with our faculty expertise (<http://african.wisc.edu/people/faculty>). Give a detailed account of the reasons and circumstances that led to your decision to undertake graduate work in the Department of African Cultural Studies. Include references to your academic work, your short-term and long-term goals, your personal relationship to or interests in the fields we study, and your knowledge of any African languages. If your transcripts reflect any negative episodes in your academic career, *e.g.*, a poor grade or a dropped course, you may explain them here.

We look for evidence of your developing research interests and how they relate to the research interests of our faculty.

The department will make secondary use of your purpose statement to assess the quality of your writing. We recommend a length of 500-1000 words. The scope of your discussion and the level of detail that you choose to provide will be part of our assessment.

- **CV or Résumé**

Curriculum vitae or résumé listing language experience, awards, honors, or publications. For more information on CV or résumé writing, please consult these resources:

- **Letters of Recommendation (3)**

We require three letters of recommendation, submitted directly by the referees. You must submit your *requests* to all three of your references as part of the online application. Recommenders will receive a notice via email and will submit their letters accordingly. We do accept letters by post and email (submit directly to the graduate coordinator). We do not accept letters sent by the candidate unless they are sealed and the seal is proofed in some form (*e.g.*, with the letter writer's signature over the seal).

Recommendation letters should discuss your overall scholarly ability. Please ask your referees to include specific examples of your academic achievements; your independent thinking, analytical and critical thinking skills; papers and presentations given in their courses; and your merits relative to other students. For international applicants, the letters should also address English proficiency. If recommenders submit their letters via the Graduate School's online application system, they will be asked to compare you to other students with whom they have worked; if they do not submit their letters through this system, they should include this information in the letter itself.

Strong letters of recommendation will provide the department with evidence that you will succeed in the study of African languages and expressive cultures at the graduate level. While we will accept letters from faculty in any discipline, we will give greater weight to letters from faculty whose scholarship is related to the fields we study.

All letters must be received by the 15 November deadline in order for us to consider your application.

AFTER THE APPLICATION

Following your application, the Graduate School will provide you with a link and a UW–Madison NetID and account. Use the information to track the progress of your application. Please keep in mind that materials sent by post may take some time to appear on this progress report.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

The department automatically considers all applicants for support through teaching assistantships and various UW–Madison fellowships. Eligibility varies by program. The process is *very* competitive, and we are unable to provide support for all students qualified to pursue degrees in our graduate program. However, the majority of our students do receive about five years of funding, mostly in the form of teaching assistantships. Our top domestic minority students are typically nominated for, and often receive, Advanced Opportunity Fellowships (<https://grad.wisc.edu/diversity/oeid>). All domestic students are encouraged to apply for Foreign Language Area Studies (<https://flas.wisc.edu>) (FLAS) fellowships. Many of our graduate students also pursue outside funding as their career progresses. Details are listed below.

TEACHING ASSISTANTSHIPS

The department regularly funds teaching assistantships for both our language and literature/culture courses. Opportunities and assignments vary by semester. All continuing graduate students in good academic standing must apply by 15 November to be considered for positions for the following academic year. All new applicants are automatically considered. Teaching assistants earn tuition remission, a stipend, and benefits.

Please consult our website (<https://african.wisc.edu/programs/teaching-assistantships>) for the most up-to-date information regarding teaching assistantships.

EBRAHIM HUSSEIN FELLOWSHIP

The Ebrahim Hussein Endowment for research in African literature was established in the College of Letters & Science in 2003 thanks to the generosity of Robert M. Philipson, alumnus of the College of Letters & Science (Ph.D.1989). The College will award \$7500 each year to one or more full-time graduate students in L&S to carry out research on African literature in Africa and/or archives outside of the United States.

The research must lead to a Ph.D. dissertation, an M.A. thesis, or a publishable-quality paper. Doctoral students may receive up to \$7500 each; M.A.-level students may receive up to \$3,750 each.

Applications are due in late November for award dispersal the following year.

The application must include the following materials:

- An application letter, describing the need for funding, the proposed research, and its role in the student's career. (1–2 pages.)
- The student's academic transcript.
- A 5-page research proposal.
- Two letters of recommendation, discussing the overall excellence of the student's work, the nature of the student's research, and the contribution that the work will make both to the student's major discipline and to the humanities generally.
- Description of any other funding received or applied for.

Finalists from the application process may be interviewed by the fund committee before the final determination of the award.

Selection Criteria

- Excellence of research proposal. Proposals should include a research timeline, description of contacts overseas, if any, and a budget. Proposals giving attention to one or more African languages will receive priority.
- Demonstrated commitment to African literature.
- General academic record.
- Letters of recommendation.

OTHER FUNDING RESOURCES

The Graduate School provides additional information helpful to graduate students in need of funding.

Find information about:

Types of funding available (<https://grad.wisc.edu/studentfunding/types>)

How to search for funding (<https://grad.wisc.edu/studentfunding/steps>)

Funding for international students (<https://iss.wisc.edu/students/new-students/funding-scholarships>)

General funding resources on campus (<https://grad.wisc.edu/studentfunding/resources>)

- African Studies Graduate Student Summer Fieldwork Award (http://africa.wisc.edu/?page_id=12507)
- Dana-Allen Dissertation Fellowship (<https://irh.wisc.edu/fellowships/dissertation>)
- Foreign Language Area Studies Fellowships (<https://flas.wisc.edu>)
- Scott Kloeck-Jenson Fellowship (<http://iris.wisc.edu/funding/students/skj>)
- IRIS Graduate Student Summer Fieldwork Award (<http://iris.wisc.edu/funding/students/summer-fieldwork-award>)

External funding options (<https://grad.wisc.edu/funding/fellowships>) (near bottom of the page)

- American Association of University Women (<http://www.aauw.org/what-we-do/educational-funding-and-awards>)
- American Council of Learned Societies (<http://www.acls.org/programs/comps>)
- Gorgias Press (<https://www.gorgiaspress.com/awards>)
- Jacob K. Javits Fellowship Program (<https://www2.ed.gov/programs/jacobjavits>) (US Dept of Ed)
- Aga Kahn International Education Programme (<http://www.akdn.org/our-agencies/aga-khan-foundation/international-scholarship-programme>)

- Margaret McNamara Education Grants (<http://www.mmeg.org/programs>)
- Woodrow Wilson Dissertation Fellowship in Women's Studies (<http://woodrow.org/fellowships/womens-studies>)

Research travel awards (<https://grad.wisc.edu/studentfunding/grantscomp/research>)

- American Council of Learned Societies (<http://www.acls.org/programs/comps>)
- Chateaubriand Fellowship (<https://www.chateaubriand-fellowship.org>)
- German Academic Exchange Service (<https://www.daad.org/en/find-funding>) (DAAD)
- Harvard Society of Fellows (<https://socfell.fas.harvard.edu/about>)
- Royal Historical Society (<http://royalhistsoc.org/grants/research-expenses/research-expenses-for-overseas-students-guidelines>)
 - M (<http://royalhistsoc.org/grants/marshall-centenary-fellowships>) Marshall & Centenary Fellowships (<http://royalhistsoc.org/grants/marshall-centenary-fellowships>)

Conference presentation funds (<https://grad.wisc.edu/studentfunding/grantscomp/conference>)

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the

advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement	30 credits
Minimum Residence Credit Requirement	24 credits
Minimum Graduate Coursework Requirement	Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (https://registrar.wisc.edu/course-guide/).
Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	M.A. candidates should maintain a 3.5 GPA in all core curriculum courses and may not have any more than two Incompletes on their record at any one time.
Assessments and Examinations	<p>M.A. research track: By the beginning of the fourth semester (e.g. the end of January), the candidate will complete a Qualifying Paper (QP) in the form, length, and quality of a publishable article. The QP may be based on a paper written for a departmental seminar, revised based on the instructor's feedback, and then read by two faculty members who agree to serve this role. Acting as if they are reviewers for a journal determining whether the QP is publishable, the two faculty members will deem the QP "publishable," suggest additional revisions, or reject it.</p> <p>M.A. pedagogy track: Candidates will enroll in a teaching portfolio preparation course with the director of the African Languages Program no later than the fourth semester after the candidate first enrolls in the program.</p> <p>The portfolio review committee will write exam questions to which the candidate will respond in writing in form of a take-home exam.</p> <p>A final oral defense addressing both the teaching portfolio and the written exam is required. The candidate must provide the initial teaching portfolio at least two weeks prior to the oral defense scheduled with the teaching portfolio committee, which will review both the written exam and the teaching portfolio.</p>
Language Requirements	Two years study of African language are required. Students may petition for an exemption if they have received comparable African language training or have intermediate or higher proficiency in an African language.

REQUIRED COURSES

M.A., Research Track ¹

Code	Title	Credits
	Two years study of African language. Students may petition for an exemption if they have received comparable African language training or have intermediate or higher proficiency in an African language.	

AFRICAN 700	Reading and Writing African Cultural Studies	3
AFRICAN 803	Theories of African Cultural Studies	3
	Two departmental seminars at the 900-level	6
	Six departmental elective courses chosen in consultation with the graduate advisor	18
Total Credits		30

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

M.A., Pedagogy Track ¹

Code	Title	Credits
	Two years study of African language. Students may petition for an exemption if they have received comparable African language training or have intermediate or higher proficiency of an African language.	
ENGL 318	Second Language Acquisition	3
AFRICAN 703	Topics in Teaching African Languages	1
AFRICAN 705	Teaching Portfolio	2
	One graduate-level culture-focused course in the department with emphasis in final paper on culture in language pedagogy	3
	A graduate-level language studies-focused course in the department, chosen in consultation with the graduate advisor	3
	Six additional courses related to African languages and cultures and/or second language acquisition, of which at least two must be Department of African Cultural Studies courses. Two of these may be additional language courses.	18
	Courses taken outside the department should be chosen from the approved list; other courses may be counted with consent of graduate advisor.	
ANTHRO/ LINGUIS 430	Language and Culture	
COM ARTS 560	Communication Theory	
CURRIC 673	Learning Second Language and Literacies	
ENGL 414	Global Spread of English	
ENGL 416	English in Society	
FRENCH/ ITALIAN 821	Issues in Methods of Teaching French and Italian	
GERMAN 727	Topics in Applied Linguistics	
SOC 535	Talk and Social Interaction	
Total Credits		30

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

With program approval, students are allowed to count no more than 6 credits of coursework numbered 300 or above from a UW–Madison undergraduate degree.

UW–Madison University Special

With program approval, students are allowed to count no more than 15 credits of coursework numbered 400 or above taken as a UW–Madison University Special student. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

A semester GPA below 3.0 will result in the student being placed on academic probation. If a semester GPA of 3.0 is not attained during the subsequent semester of full time enrollment (or 12 credits of enrollment if enrolled part-time) the student may be dismissed from the program or allowed to continue for one additional semester based on advisor appeal to the Graduate School.

ADVISOR / COMMITTEE

M.A. research track¹: Candidates are required to meet with the director of graduate studies every semester prior to enrolling for the next semester. Failure to meet this requirement will result in a hold on the student's enrollment.

M.A. pedagogy track¹: Candidates are required to meet with the director of graduate studies every semester prior to enrolling for the next semester. Failure to meet this requirement will result in a hold on the student's enrollment. Pedagogy candidates must establish a *portfolio review committee*, in consultation with the director of the the African Languages Program, consisting of no fewer than two faculty members of the Department of African Cultural Studies and one additional faculty member.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

M.A. research track¹: Students who have not produced a “publishable” (passing) QP by the beginning of the fourth semester (e.g. the end of January) must write a brief request for an extension to the end of the fourth semester, to be presented by their advisor for approval by the faculty. No more than one such extension will be granted.

Students who have not produced a “publishable” (passing) QP by the end of their fourth semester will leave the program with a terminal MA. Those who produce a “publishable” QP by the end of their fourth semester will be considered for admission to the PhD program. A decision regarding admission to the Ph.D. will be taken at a faculty meeting, based on a recommendation by the QP readers and input from other faculty members.

M.A. pedagogy track¹: candidates must complete the *take-home exam* and *oral defense* no later than the fourth semester.

OTHER

n/a

- 1 These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. (Content) Recognize canonical authors and texts, historical forms, genres, and structures, and recognize aesthetic and cultural concerns in Africa and its diasporas.
2. (Content) Develop in-depth knowledge in a sub-field of specialization within African cultural studies.
3. (Content) Demonstrate their understanding of major theories, approaches, concepts, and current and classical research findings in African and diaspora literary and cultural studies.
4. (Content) Develop a level of proficiency in the different “ways of knowing” Africa and the diaspora through language, literatures, and cultures.
5. (Research Skills) Understand their own learning processes and possess the capacity to intentionally seek, evaluate, and learn from information, and recognize and reduce bias in their thinking.
6. (Research Skills) Effectively retrieve and comprehend primary sources in English and African languages, and secondary sources from a range of disciplines.
7. (Research Skills) Gain firm knowledge of existing research in their area of specialization and its gaps.

8. (Communication Skills) Develop or improve speaking, listening, writing, reading skills in an African language, and integrate these skills to communicate effectively.

9. (Communication Skills) Communicate effectively through essays, oral presentations, and discussion, so they may share their knowledge, wisdom, and values with others across social and professional settings.

10. (Communication Skills) Show knowledge of conventional rhetorical strategies, and integrate research by other authors while distinguishing between their own ideas and those of others.

11. (Communication Skills) Write and speak across disciplinary boundaries with regard to existing research about Africa and the diaspora in the humanities and social sciences.

12. (Communication Skills) Demonstrate their ability to organize a larger project into logical smaller components, so that it can be addressed in depth in a multi-chapter piece of writing.

13. (Analytical Skills) Discuss cultural texts from various theoretical and critical perspectives, formulate ideas and make connections between literary/cultural concepts and themes.

14. (Analytical Skills) Demonstrate command of the terminology and methodology of cultural studies, construct complex arguments, and use primary and secondary sources to support arguments.

15. (Analytical Skills) Articulate the place of their own research in relation to existing research on related topics.

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Edris Makward
Michael Schatzberg
Harold Scheub
Aliko Songolo

ACADEMIC STAFF

Bill Bach, Department Administrator
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AFRICAN CULTURAL STUDIES, PH.D.

The mission of the Department of African Cultural Studies is to provide research and teaching in the languages and expressive cultures of Africa and Africans around the world.

The department is the only one of its kind in the United States. For those learning to conduct research in African expressive cultures, it offers curricula leading to both the master of arts degree and the doctor of philosophy degree. For those learning to teach African languages, it offers a terminal master of arts degree with an emphasis on pedagogy. Its students come from all over the world, including many African countries.

ADMISSIONS

PREREQUISITES

Admission to the graduate program requires a bachelors degree with substantial coursework related to the expressive cultures of Africa. Admitted students with an insufficient background in African cultural studies may be asked to complete additional coursework beyond the regular degree requirements. Applicants should have a minimum 3.0 GPA on a 4.0 grading scale or equivalent academic performance on other scales. The department will consider special cases, however, for probationary admission. If you have questions about your eligibility, contact the chair of the Admissions committee, Dr. Katrina Daly Thompson, at katrina.daly.thompson@wisc.edu

Admission into the Ph.D. program **requires** a master of arts in a closely related field (with the thesis or other substantive piece of graduate-level writing submitted as a writing sample).

APPLICATION REQUIREMENTS

All applicants to the program must apply online (<https://grad.wisc.edu/apply>) by 15 November. *Please note*, the \$75 application fee is due at the time of application (an additional \$6 will be charged to international students to cover processing). The department cannot review an applicant who has not met all Graduate School admissions requirements (<https://grad.wisc.edu/admissions/requirements>). Carefully review the instructions and other information the Graduate School provides; most of the admissions questions we receive relate to the Graduate School's requirements and are answered in their documentation.

As part of the online application process, you will be asked supplemental questions regarding your language and teaching experience and expected to **upload** the information listed below:

- **University Transcripts**

PEOPLE

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To view full faculty profiles, visit our website (<https://african.wisc.edu/people/faculty>).

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EMERITUS FACULTY

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You must upload transcripts or academic records from **each** institution attended. You may upload *unofficial* copies for department review. If you are offered admission to the program, the Graduate School will request that you provide official copies of transcripts or academic records from each institution you have attended. These must be issued directly by the institutions with all official seals, stamps, and signatures. International academic records must be in the original languages and records in languages other than English accompanied by an official English translation. An accepted student may not matriculate or enroll for courses until the Graduate School has documented official transcript(s) matching or updating the application transcript(s).

- **TOEFL or IELTS Scores** (international applicants)

If your undergraduate institution did not conduct courses in English, you must complete either the Test Of English as a Foreign Language (TOEFL) or the International English Language Testing System exam (IELTS). The online application allows you to self-report scores, but we cannot consider your application until the Graduate School receives your official score report directly from the examination organization. Students who do not meet Graduate School guidelines for English proficiency (<https://grad.wisc.edu/admissions/requirements>) may be considered for admission, but will be required to complete assigned English language courses during their first year of study.

- **Purpose Statement**

Your statement of purpose should make clear that you understand the kinds of courses we offer (<http://african.wisc.edu/courses>) and the research interests of our faculty and substantiate how your own interests intersect with our faculty expertise (<http://african.wisc.edu/people/faculty>). Give a detailed account of the reasons and circumstances that led to your decision to undertake graduate work in the Department of African Cultural Studies. Include references to your academic work, your short-term and long-term goals, your personal relationship to or interests in the fields we study, and your knowledge of any African languages. If your transcripts reflect any negative episodes in your academic career, e.g., a poor grade or a dropped course, you may explain them here.

If your primary interest is in our pedagogy track (<http://african.wisc.edu/content/ma-pedagogy-track>), please make that clear in your statement of purpose. Otherwise, we look for evidence of your developing research interests and how they relate to the research interests of our faculty. (*Until further notice*, applications are no longer being accepted for this track)

The department will make secondary use of your purpose statement to assess the style and substance of your writing. We recommend a length of 500-1000 words. The scope of your discussion and the level of detail that you choose to provide will be part of our assessment. You may wish to review resources such as the *UW-Madison Writer's Handbook* and the extensive Purdue Online Writing Lab (OWL) (<http://owl.english.purdue.edu/owl>) for writing guidance.

- **CV or Résumé**

Curriculum vitae or résumé listing language experience, awards, honors, or publications. For more information on CV or résumé writing, please consult these resources:

Writing the Curriculum Vitae (<https://owl.english.purdue.edu/owl/resource/641/1>) (Purdue Online Writing Lab) and Résumé Writing Tips

(<http://writing.wisc.edu/Handbook/Resume.html>) (UW-Madison's Writing Center)

- **Letters of Recommendation (3)**

We require three letters of recommendation, submitted directly by the referees. You must submit your *requests* to all three of your references as part of the online application. Recommenders will receive a notice via email and will submit their letters accordingly. We do accept letters by post and email (see *Application Contacts* below). We do not accept letters sent by the candidate unless they are sealed and the seal is proofed in some form (e.g., with the letter writer's signature over the seal).

Recommendation letters should discuss your overall scholarly ability. Please ask your referees to include specific examples of your academic achievements; your independent thinking, analytical and critical thinking skills; papers and presentations given in their courses; and your merits relative to other students. For international applicants, the letters should also address English proficiency. If recommenders submit their letters via the Graduate School's online application system, they will be asked to provide class rank information; if they do not submit their letters through this system, they should include this information in the letter itself.

Strong letters of recommendation will provide the department with evidence that you will succeed in the study of African languages and expressive cultures at the graduate level. While we will accept letters from faculty in any discipline, we will give greater weight to letters from faculty whose scholarship is related to the fields we study.

All letters must be received by the 15 November deadline in order for us to consider your application.

AFTER THE APPLICATION

Following your application, the Graduate School will provide you with a link and a UW-Madison NetID and account. Use the information to track the progress of your application. Please keep in mind that materials sent by post may take some time to appear on this progress report.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

The department automatically considers all applicants for support through teaching assistantships and various UW-Madison fellowships. Eligibility varies by program. The process is *very* competitive, and we are unable to provide support for all students qualified to pursue degrees in our graduate program. However, the majority of our students do receive

about five years of funding, mostly in the form of teaching assistantships. Our top domestic minority students are typically nominated for, and often receive, Advanced Opportunity Fellowships (<https://grad.wisc.edu/diversity/oeid>). All domestic students are encouraged to apply for Foreign Language Area Studies (<https://flas.wisc.edu>) (FLAS) fellowships. Many of our graduate students also pursue outside funding as their career progresses. Details are listed below.

TEACHING ASSISTANTSHIPS

The department regularly funds teaching assistantships for both our language and literature/culture courses. Opportunities and assignments vary by semester. All continuing graduate students in good academic standing must apply by 15 November to be considered for positions for the following academic year. All new applicants are automatically considered. Teaching assistants earn tuition remission, a stipend, and benefits.

Please consult our website (<https://african.wisc.edu/programs/teaching-assistantships>) for the most up-to-date information regarding teaching assistantships.

EBRAHIM HUSSEIN FELLOWSHIP

The Ebrahim Hussein Endowment for research in African literature was established in the College of Letters & Science in 2003 thanks to the generosity of Robert M. Philipson, alumnus of the College of Letters & Science (Ph.D.1989). The College will award \$7500 each year to one or more full-time graduate students in L&S to carry out research on African literature in Africa and/or archives outside of the United States.

The research must lead to a Ph.D. dissertation, an M.A. thesis, or a publishable-quality paper. Doctoral students may receive up to \$7500 each; M.A.-level students may receive up to \$3,750 each.

Applications are due in late November for award dispersal the following year.

The application must include the following materials:

- An application letter, describing the need for funding, the proposed research, and its role in the student's career. (1–2 pages.)
- The student's academic transcript.
- A 5-page research proposal.
- Two letters of recommendation, discussing the overall excellence of the student's work, the nature of the student's research, and the contribution that the work will make both to the student's major discipline and to the humanities generally.
- Description of any other funding received or applied for.

Finalists from the application process may be interviewed by the fund committee before the final determination of the award.

Selection Criteria

- Excellence of research proposal. Proposals should include a research timeline, description of contacts overseas, if any, and a budget. Proposals giving attention to one or more African languages will receive priority.
- Demonstrated commitment to African literature.
- General academic record.
- Letters of recommendation.

OTHER FUNDING RESOURCES

The Graduate School provides additional information helpful to graduate students in need of funding.

Find information about:

Types of funding available (<https://grad.wisc.edu/studentfunding/types>)

How to search for funding (<https://grad.wisc.edu/studentfunding/steps>)

Funding for international students (<https://iss.wisc.edu/students/new-students/funding-scholarships>)

General funding resources on campus (<https://grad.wisc.edu/studentfunding/resources>)

- African Studies Graduate Student Summer Fieldwork Award (http://africa.wisc.edu/?page_id=12507)
- Dana-Allen Dissertation Fellowship (<https://irh.wisc.edu/fellowships/dissertation>)
- Foreign Language Area Studies Fellowships (<https://flas.wisc.edu>)
- Scott Kloeck-Jenson Fellowship (<http://iris.wisc.edu/funding/students/skj>)
- IRIS Graduate Student Summer Fieldwork Award (<http://iris.wisc.edu/funding/students/summer-fieldwork-award>)

External funding options (<https://grad.wisc.edu/funding/fellowships>) (near bottom of the page)

- American Association of University Women (<http://www.aauw.org/what-we-do/educational-funding-and-awards>)
- American Council of Learned Societies (<http://www.acls.org/programs/comps>)
- Gorgias Press (<https://www.gorgiaspress.com/awards>)
- Jacob K. Javits Fellowship Program (<https://www2.ed.gov/programs/jacobjavits>) (US Dept of Ed)
- Aga Kahn International Education Programme (<http://www.akdn.org/our-agencies/aga-khan-foundation/international-scholarship-programme>)
- Margaret McNamara Education Grants (<http://www.mmeg.org/programs>)
- Woodrow Wilson Dissertation Fellowship in Women's Studies (<http://woodrow.org/fellowships/womens-studies>)

Research travel awards (<https://grad.wisc.edu/studentfunding/grantscomp/research>)

- American Council of Learned Societies (<http://www.acls.org/programs/comps>)
- Chateaubriand Fellowship (<https://www.chateaubriand-fellowship.org>)
- German Academic Exchange Service (<https://www.daad.org/en/find-funding>) (DAAD)
- Harvard Society of Fellows (<https://socfell.fas.harvard.edu/about>)
- Royal Historical Society (<http://royalhistosoc.org/grants/research-expenses/research-expenses-for-overseas-students-guidelines>)
 - M (<http://royalhistosoc.org/grants/marshall-centenary-fellowships>)arshall & Centenary Fellowships (<http://royalhistosoc.org/grants/marshall-centenary-fellowships>)

Conference presentation funds (<https://grad.wisc.edu/studentfunding/grantscomp/conference>)

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 51 credits

Minimum Residence Credit Requirement 45 credits

Minimum Graduate Coursework Requirement Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements Ph.D. candidates should maintain a 3.5 GPA in all core curriculum courses and may not have any more than two incompletes on their record at any one time.

Assessments and Examinations Doctoral students must pass a preliminary examination, which includes a written exam, oral defense, and a dissertation proposal defense. After writing the dissertation, candidates must pass an oral defense of the completed dissertation.

Doctoral students must submit a short statement (2-3 pages) at the end of their third semester, discussing how the courses that they have taken so far, as well as those that they plan to take in the future semester(s), relate to their area of focus and inform their dissertation research and their envisioned career path. The statement should be approved by the advisor, then submitted by the advisor at a faculty meeting for feedback.

Language Requirements Ph.D. students must complete one year of an African language beyond second year level.

One additional course in a language relevant to the student's doctoral research and/or geographic area of focus, other than English. The language must be chosen in consultation with the director of graduate studies.

Doctoral Minor/Breadth Requirements All doctoral students are required to complete a minor.

REQUIRED COURSES

Code	Title	Credits
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One year's study of an African language beyond second year level. Students may petition for an exemption if they have an equivalent level of proficiency in an African language.

Four graduate-level courses: in consultation with the director of graduate studies and/or the dissertation committee chair, each student is expected to define, no later than the third semester, an area of focus within African Cultural Studies, e.g., literature, music, film, critical applied linguistics, drama, critical theory, diaspora studies, new media. Within that area of study, students will take:

Two graduate seminars

Two additional courses to be chosen in consultation with the director of graduate studies and/or the dissertation committee chair

One additional course in a language relevant to the student's doctoral research and/or geographic area of focus, other than English. The language must be chosen in consultation with the director of graduate studies.

Completion of a Ph.D. minor.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

Up to 6 credits of prior coursework may be counted toward the Ph.D. with approval.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

No credits from a UW–Madison University Special student career are allowed to count toward the degree.

PROBATION

A semester GPA below 3.0 will result in the student being placed on academic probation. If a semester GPA of 3.0 is not attained during the subsequent semester of full time enrollment (or 12 credits of enrollment if enrolled part-time) the student may be dismissed from the program or allowed to continue for one additional semester based on advisor appeal to the Graduate School.

ADVISOR / COMMITTEE

All students are required to find a dissertation advisor by the beginning of the third semester in the program. The dissertation committee must consist of at least four members representing more than one graduate program, three of whom must be UW–Madison graduate faculty or former UW–Madison graduate faculty up to one year after resignation or retirement. At least one of the four members must be from outside of the Department and all doctoral committee members must be designated as readers.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

A student may not hold an assistantship for more than five years.

For students who earned an M.A. elsewhere, coursework should be completed in six semesters. By the beginning of the sixth semester, the candidate proceeds to the preliminary examination. A student who has not attempted the written preliminary exam by the beginning of their seventh semester, or passed it by the end of the seventh semester, will leave the program with a terminal M.A. (provided they have at least thirty credits).

For students who earned an M.A. at UW–Madison, coursework should be completed in four semesters. By the beginning of the fourth semester, the candidate proceeds to the preliminary examination. A student who has not attempted the written preliminary exam by the beginning of their fifth semester, or passed it by the end of the fifth semester, will leave the program.

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take

another preliminary examination and to be admitted to candidacy a second time.

OTHER

n/a

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. (Content) Recognize canonical authors and texts, historical forms, genres, and structures, and recognize aesthetic and cultural concerns in Africa and its diasporas.
2. (Content) Develop in-depth knowledge in a sub-field of specialization within African cultural studies.
3. (Content) Demonstrate their understanding of major theories, approaches, concepts, and current and classical research findings in African and diaspora literary and cultural studies.
4. (Content) Develop a level of proficiency in the different “ways of knowing” Africa and the diaspora through language, literatures, and cultures.
5. (Content) Develop knowledge of a secondary field of research from outside the Department of African Cultural Studies.
6. (Research Skills) Understand their own learning processes and possess the capacity to intentionally seek, evaluate, and learn from information, and recognize and reduce bias in their thinking.
7. (Research Skills) Effectively retrieve and comprehend primary sources in English and African languages, and secondary sources from a range of disciplines.
8. (Research Skills) Gain firm knowledge of existing research in their area of specialization and its gaps.
9. (Research Skills) Read material (primary and secondary) relevant to African cultural studies in a non-African language other than English.
10. (Research Skills) Have an understanding of professional and ethical responsibility with regard to producing original research and working with human subjects.
11. (Communication Skills) Develop or improve speaking, listening, writing, reading skills in an African language, and integrate these skills to communicate effectively.
12. (Communication Skills) Communicate effectively through essays, oral presentations, and discussion, so they may share their knowledge, wisdom, and values with others across social and professional settings.
13. (Communication Skills) Show knowledge of conventional rhetorical strategies, and integrate research by other authors while distinguishing between their own ideas and those of others.

14. (Communication Skills) Write and speak across disciplinary boundaries with regard to existing research about Africa and the diaspora in the humanities and social sciences.

15. (Communication Skills) Demonstrate their ability to organize a book-length project into logical smaller components, so that it can be addressed in depth in a multi-chapter piece of writing.

16. (Communication Skills) Design a syllabus for courses in African Cultural Studies.

17. (Analytical Skills) Discuss cultural texts from various theoretical and critical perspectives, formulate ideas and make connections between literary/cultural concepts and themes.

18. (Analytical Skills) Demonstrate command of the terminology and methodology of cultural studies, construct complex arguments, and use primary and secondary sources to support arguments.

19. (Analytical Skills) Articulate the place of their own research in relation to existing research on related topics.

PEOPLE

FACULTY

To view full faculty profiles, visit our website (<https://african.wisc.edu/people/faculty>).

Matthew H. Brown: African screen media (particularly "Nollywood"), oral traditions, literature

Vlad Dima: French New Wave cinema, Francophone cinemas, film theory, television studies

Ainehi Edoro: Form, theory, and history of the African novel

Névine El Nossery: Francophone & Middle Eastern literature and culture, postcolonial studies

Samuel England: Classical Arabic poetry and prose, modern Arabic literature

Colleen Hamilton: Second language acquisition

Luis Madureira: Colonial and postcolonial studies, modernism, theater and performance

Mustafa Mustafa: Arabic

Tejumola Olaniyan: African, African American, and Caribbean literature and culture

Ronald Radano: Ethnomusicology, US Black music and its transnational circulation

Damon Sajjani: Africana cultural studies, social and political theory, HipHop studies

Katrina Daly Thompson: African discourse, linguistic ethnography, language pedagogy

EMERITUS FACULTY

Patrick Bennett

Dustin Cowell

Jo Ellen Fair

Magdalena Hauner

Linda Hunter

Edris Makward

Michael Schatzberg

Harold Scheub

Aliko Songolo

ACADEMIC STAFF

Bill Bach, Department Administrator

Toni Landis, Academic Advisor/Student Services Coordinator

AFRO-AMERICAN STUDIES

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Afro-American Studies, Doctoral Minor (p. 35)
- Afro-American Studies, M.A. (p. 35)

PEOPLE

Faculty: Professors Greene (chair), Adell, Drewal, Plummer, Thornton, Werner; Associate Professor Clark-Pujara; Assistant Professors Almiron, Brown, Davis

AFRO-AMERICAN STUDIES, DOCTORAL MINOR

Candidates for the Ph.D. in other programs may obtain a doctoral minor in Afro-American studies by completing a minimum of 12 graduate credits in the department (<http://guide.wisc.edu/courses/afroamer>), of which only 3 may be directed-study credits. Three of the 12 credits must be a seminar course. Advance approval by the candidate's major advisor is required for the doctoral minor.

PEOPLE

Faculty: Professors Greene (chair), Adell, Drewal, Plummer, Thornton, Werner; Associate Professor Clark-Pujara; Assistant Professors Almiron, Brown, Davis

AFRO-AMERICAN STUDIES, M.A.

The program in Afro-American studies at the University of Wisconsin-Madison is dedicated to carrying on the vision of the elders and ancestors who devoted themselves to the highest standards of intellectual rigor and to the realization of a vision of true equality and opportunity. Like W.E.B. Du Bois, Anna Julia Cooper, John Hope Franklin, Zora Neale Hurston and James Porter, the department is committed to bringing the fruits of academic research to the broadest possible audience, within and beyond the walls of the university. The deepest understanding of the complex reality of race in America requires an interdisciplinary approach, one that draws on history and literature, the social sciences, and the arts. Graduate studies are concentrated in three areas:

1. Afro-American Culture (literature, theater history, music and culture, art history and visual culture);
2. History and Society;

3. Black Women's Studies

The M.A. program is based on personalized programs of study shaped to meet the needs of individual students, many of whom participate in the "Bridge" programs which enable them to move directly into Ph.D. programs in English (<http://www.english.wisc.edu/grad-afroam.htm>) or history (<https://history.wisc.edu/our-graduate-program/bridge-program>). Program faculty are experts in their fields and work collaboratively to ensure that graduate students are well prepared to either take on further study at the Ph.D.-level or careers in teaching, public service, and the private, corporate sector. The program also offers doctoral minors for students in many graduate programs including African languages and literature, art history, communication arts, comparative literature, education, English, history, music, political science, social work, and sociology.

ADMISSIONS

Deadline for application: December 15

The Graduate School (<https://grad.wisc.edu>) has an extensive website where you will find information regarding admissions and how to apply (<https://www.gradsch.wisc.edu/eapp/eapp.pl>) online. It is very important you read all information carefully.

All applicants to our program must meet the University of Wisconsin Graduate School's admission requirements (<https://grad.wisc.edu/admissions/requirements>)

Information regarding fellowships, tuition, housing, cost of living, etc. can be found at financial aid (<https://financialaid.wisc.edu>).

Read the application and corresponding instructions carefully. **Only** the online application and the \$75 application fee are sent to the Graduate School. Other materials must be sent to the Department of Afro-American Studies.

To apply to the master's program, please send the following to the Afro-American Studies Department, 4141 Helen C. White Hall, 600 N. Park St., Madison WI 53706:

- Official transcript(s) or academic records from each institution attended
[International academic records must be in the original language accompanied by an official English translation. Documents must be issued by the school with the official seal/stamp and official signatures.]
- Reasons for Graduate Study if you did not include this with your online application to the Graduate School
- A writing sample
- Three (3) letters of recommendation (<https://grad.wisc.edu/admissions/faq>)
- If applying, please inform the department of any home/email address changes. This is very important.

The Department of Afro-American Studies does not currently require students to take the Graduate Record Examination (GRE), although we recommend that you do so. Students who do not take the GRE are ineligible for certain types of financial aid. Admission to the department is competitive: the minimum overall GPA required is 3.0 on a 4.0 scale. Students with a GPA above 3.3 are especially encouraged to apply. Priority will be given to students who have completed undergraduate

courses in subjects related to Afro-American history, culture, or society or who have completed an undergraduate major in one of the following fields: Afro-American Studies; a related social science discipline; the humanities.

The department admits students only once a year, in January, for the following academic year which begins in the fall. The department must receive all materials by December 15 if you wish to be considered for the Bridge Program, grant funding or a teaching assistantship during the academic year. Applications received after December 15 and by January 15 will be considered, but not for funding or the Bridge Program. It is your responsibility to check with the department prior to January 15 regarding the receipt of your materials. Materials submitted to the department cannot be returned.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 21 credits

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://public.my.wisc.edu/web/expanded>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations In addition to the 24 credits of coursework, students choose one of two options for completion of the degree. Plan A requires the completion of a master's thesis. The purpose of the M.A. thesis is to demonstrate that degree candidates have acquired the knowledge and skills to carry out scholarly writing and research in their discipline, and to advance knowledge in the field itself. Students who plan to earn a Ph.D. are strongly encouraged to choose Plan A for their master's degree. Plan B requires the completion of a final paper followed by an oral defense on a reading list developed in consultation with the student's advisor.

Language Requirements n/a

REQUIRED COURSES

Students must take 24 credits of approved graduate coursework and 6 Research and Thesis credits. At least 12 of the course credits must be taken in the Department of Afro-American Studies.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the

degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

For well-prepared advanced students, the program may accept 9 credits of prior graduate coursework from other institutions towards the minimum graduate degree credit and minimum graduate coursework (50%) requirement. The minimum graduate residence credit requirement can be satisfied only with courses taken as a graduate student at UW–Madison.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the program's graduate degree requirements.

UW–Madison University Special

The program may decide to accept up to 9 University Special student credits as fulfillment of the minimum graduate residence, graduate degree, or minor credit requirements on occasion as an exception (on a case-by-case basis). UW–Madison coursework taken as a University Special student would not be allowed to count toward the 50% graduate coursework minimum unless taken at the 700 level or above.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

12 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students

completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Students with an interest in pursuing a Ph.D. in either English or history might be interested in applying to the in English Bridge Programs (<http://www.english.wisc.edu/grad-afroam.htm>) or History (<https://history.wisc.edu/our-graduate-program/bridge-program>), which allow a student who has completed an M.A. in Afro-American studies to move directly into one of those Ph.D. programs.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. To provide students with a thorough understanding of a range of disciplinary approaches to the study of the African American experience in the United States and the African diaspora.
2. To provide students with a foundation in their area of concentration that will enable them to pursue doctoral work in a relevant discipline, especially in the areas of English and history, where we have established Bridge programs with UW departments.
3. To familiarize students with the techniques of effective teaching in multiracial classrooms, including training in dealing with controversial issues and potential racial tensions.

PEOPLE

Faculty: Professors Greene (chair), Adell, Drewal, Plummer, Thornton, Werner; Associate Professor Clark-Pujara; Assistant Professors Almiron, Brown, Davis

AGRICULTURAL AND APPLIED ECONOMICS

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Agricultural and Applied Economics, Doctoral Minor (p. 38)
- Agricultural and Applied Economics, M.S. (p. 38)
- Agricultural and Applied Economics, Ph.D. (p. 45)

PEOPLE

Faculty: Professors Foltz (chair), Barham, Chavas, Coxhead, Deller, Gould, Mitchell, Phaneuf, Provencher, Rutherford, Stiegert; Associate Professors

Alix-Garcia, Du, Grainger, Hueth, Schechter, Shi; Assistant Professors Conroy, Dower, Parker, Tjernström; Faculty Associate Dong

AGRICULTURAL AND APPLIED ECONOMICS, DOCTORAL MINOR

Any student enrolled in a UW–Madison doctoral program may pursue a doctoral minor in agricultural and applied economics. Many students take the master's core courses of A A E 635 Applied Microeconomic Theory, A A E 636 Applied Econometric Analysis I and A A E 637 Applied Econometric Analysis II to gain training in microeconomic theory and econometrics that are designed to develop a set of analytical skills applicable to a wide range of problems in many disciplines, especially the social sciences.

REQUIREMENTS

Graduate students who wish to pursue an Option A external minor in agricultural and applied economics should consult the A A E graduate coordinator or director of graduate studies. Courses should be chosen in consultation with the student's departmental advisor and submitted for approval to A A E before they are taken. Students may earn a doctoral minor in A A E with 9 credits, if all 9 credits are in graduate-level courses preapproved by A A E. Students are expected to achieve a B or better in all courses used for the minor. Directed study courses do not count toward the minor.

The A A E director of graduate studies certifies the minor on the prelim warrant.

PEOPLE

Faculty: Professors Foltz (chair), Barham, Chavas, Coxhead, Deller, Gould, Mitchell, Phaneuf, Provencher, Rutherford, Stiegert; Associate Professors Alix-Garcia, Du, Grainger, Hueth, Schechter, Shi; Assistant Professors Conroy, Dower, Parker, Tjernström; Faculty Associate Dong

AGRICULTURAL AND APPLIED ECONOMICS, M.S.

The Department of Agricultural and Applied Economics offers graduate degree programs leading to the master of science and doctor of philosophy. Long recognized as one of the top programs in the nation, the department is an active center of research and graduate training in environmental and natural resource economics, the economic development of low-income countries, agricultural economics, community economics, and more recently, resource and energy demand analysis.

Department faculty are affiliated with a broad range of institutes and centers across the campus, including the Gaylord Nelson Institute for Environmental Studies, the Center for Integrated Agricultural Systems, the University Center for Cooperatives, the Renk Agribusiness Institute, Center for Community Economic Development, and the area studies programs. Each program has its own rich intellectual life of seminars and other activities.

The department provides office space, a lounge, and IT support for its approximately 60 graduate students. The Taylor–Hibbard Club, the department’s graduate student organization, serves as a link between graduate students and the faculty, elects student representatives to department committees, and promotes academic and social activities for its members.

There are two master's degree programs in the Department of Agricultural and Applied Economics: the M.S. in Agricultural and Applied Economics (A A E) and the M.S. in Resource and Energy Demand analysis (REDA).

M.S. NAMED OPTION IN AGRICULTURAL AND APPLIED ECONOMICS (P. 41)

The master of science includes 30 credits of coursework. This program normally takes four semesters to complete, and is ideal for students interested in careers in data analysis, government agencies, nonprofit organizations, consulting, and more. For more information please visit the A A E department website (<https://aae.wisc.edu/programs/gradprogram>).

M.S. NAMED OPTION IN RESOURCE AND ENERGY DEMAND ANALYSIS (REDA) (P. 43)

This one-year program is designed to prepare students for jobs in economics and data analytics for a sustainable future. Industry professionals deliver seminars about their research, supply data for classroom activities, and mentor students via research projects. Our small class size means students get plenty of individual attention from faculty and staff. The cohort nature of our program fosters peer-to-peer learning and a culture of intellectual curiosity. Completion of this fast track masters requires 31 credits and does not include a thesis. Learn more (p. 43).

ADMISSIONS

Students apply to either the named option (sub-major) in "Agricultural and Applied Economics (p. 41)" or the named option in "Resource and Energy Demand Analysis (p. 43)."

For details on the Agricultural and Applied Economics M.S. application process, please visit:

To Apply (<https://aae.wisc.edu/apply>)

For more information on the A A E M.S. degree please contact:

Mary Treleven
Graduate Program Coordinator
mtreleven@wisc.edu
Phone: 608-262-9489

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

M.S. students in agricultural and applied economics students can apply for graduate positions listed under students jobs (<https://jobs.wisc.edu>).

Students in the resource and energy demand analysis program are not permitted to accept assistantships or seek dual degrees.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	Yes	Yes

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Note: The major is currently non-admitting. Students are admitted through one of the named options (sub-majors) below (p. 40).

Minimum Credit Requirement	30 credits
Minimum Residence Credit Requirement	16 credits
Minimum Graduate Coursework Requirement	See either the M.S. named option in Agricultural and Applied Economics (https://next-guide.wisc.edu/graduate/agricultural-applied-economics/agricultural-applied-economics-agricultural-applied-economics-ms/#requirements) or the named option in Resource and Energy Demand Analysis (REDA) (https://next-guide.wisc.edu/graduate/agricultural-applied-economics/agricultural-applied-economics-ms/agricultural-applied-economics-resource-energy-demand-analysis-ms/#requirements) for the requirement information.
Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	See either the M.S. named option in Agricultural and Applied Economics (https://next-guide.wisc.edu/graduate/agricultural-applied-economics/agricultural-applied-economics-agricultural-applied-economics-ms/#requirements) or the named option in Resource and Energy Demand Analysis (REDA) (https://next-guide.wisc.edu/graduate/agricultural-applied-economics/agricultural-applied-economics-ms/agricultural-applied-economics-resource-energy-demand-analysis-ms/#requirements) for the requirement information.
Assessments and Examinations	See either the M.S. named option in Agricultural and Applied Economics (https://next-guide.wisc.edu/graduate/agricultural-applied-economics/agricultural-applied-economics-agricultural-applied-economics-ms/#requirements) or the named option in Resource and Energy Demand Analysis (REDA) (https://next-guide.wisc.edu/graduate/agricultural-applied-economics/agricultural-applied-economics-ms/agricultural-applied-economics-resource-energy-demand-analysis-ms/#requirements) for the requirement information.
Language Requirements	No language requirements.

REQUIRED COURSES

Select a named option (p. 40) for courses required.

NAMED OPTIONS (SUB-MAJORS)

A named option is a formally documented sub-major within an academic major program. Named options appear on the transcript with degree conferral. Students pursuing the Master of Science in Agricultural and Applied Economics must select one of the following named options:

- Agricultural and Applied Economics: Agricultural and Applied Economics, M.S. (p. 41)
- Agricultural and Applied Economics: Resource and Energy Demand Analysis, M.S. (p. 43)

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook is the repository for all of the program's policies and requirements. See the handbook for the named option in Agricultural and Applied Economics here (<https://aae.wisc.edu/students/grad-handbook>), and for the named option in Resource and Energy Demand Analysis here (<http://reda.aae.wisc.edu/handbook.pdf>).

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 6 credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

Up to 7 credits from a UW–Madison undergraduate degree numbered 300 or above are allowed to count toward the degree, with petition from student. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison University Special

See either the M.S. named option in Agricultural and Applied Economics (<https://next-guide.wisc.edu/graduate/agricultural-applied-economics/agricultural-applied-economics-ms/agricultural-applied-economics-agricultural-applied-economics-ms/#policies>) or the named option in Resource and Energy Demand Analysis (REDA) (<https://next-guide.wisc.edu/graduate/agricultural-applied-economics/agricultural-applied-economics-ms/agricultural-applied-economics-resource-energy-demand-analysis-ms/#policies>) for the policy information.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

See either the M.S. named option in Agricultural and Applied Economics (<https://next-guide.wisc.edu/graduate/agricultural-applied-economics/agricultural-applied-economics-ms/agricultural-applied-economics-agricultural-applied-economics-ms/#policies>) or the named option in Resource and Energy Demand Analysis (REDA) (<https://next-guide.wisc.edu/graduate/agricultural-applied-economics/agricultural-applied-economics-ms/agricultural-applied-economics-resource-energy-demand-analysis-ms/#policies>) for the policy information.

agricultural-applied-economics-resource-energy-demand-analysis-ms/#policiestext) for the policy information.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Students in the Resource and Energy Demand Analysis program are not permitted to accept assistantships or seek dual or double degrees.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Articulates and critiques theories and empirical methods for quantitative analysis relevant to agricultural, environmental, international development, or community economics.
2. Identifies data sources, applies appropriate econometric methodologies, and evaluates quantitative evidence relevant to questions in agricultural, environmental, international development, or community economics.
3. Clearly communicates applied economics issues, methods, and empirical analysis using both written and oral strategies.
4. Recognizes and applies principles of ethical, collegial and professional conduct.

PEOPLE

Faculty: Professors Foltz (chair), Barham, Chavas, Coxhead, Deller, Gould, Mitchell, Phaneuf, Provencher, Rutherford, Stiegert; Associate Professors Alix-Garcia, Du, Grainger, Hueth, Schechter, Shi; Assistant Professors Conroy, Dower, Parker, Tjernström; Faculty Associate Dong

Lecturers: Beardmore, Glinsmann

AGRICULTURAL AND APPLIED ECONOMICS: AGRICULTURAL AND APPLIED ECONOMICS, M.S.

This is a named option within the Agricultural and Applied Economics M.S. (p. 38)

The master of science includes 30 credits of coursework. This program normally takes 4 semesters to complete, and is ideal for students interested in careers in data analysis, government agencies, nonprofit organizations, consulting and more. For more information please visit the A A E department website (<https://aae.wisc.edu/programs/gradprogram>).

ADMISSIONS

For details on the Agricultural and Applied Economics M.S. application process, please visit:

To Apply (<https://aae.wisc.edu/apply>)

For more information on the AAE M.S. degree please contact:

Mary Treleven
Graduate Program Coordinator
mtreleven@wisc.edu
Phone: 608-262-9489

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

M.S. students in agricultural and applied economics can apply for graduate positions listed under students jobs (<https://jobs.wisc.edu>).

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements Students holding research assistantships are required to maintain an overall 3.2 GPA; grades of B or above in all core curriculum coursework.

Assessments and Examinations The thesis track requires a thesis on an approved research topic that is defended in an oral examination.

Language Requirements No language requirements.

REQUIRED COURSES

Code	Title	Credits
Microeconomic Theory		
A A E 635	Applied Microeconomic Theory	3
Econometrics		

A A E 636	Applied Econometric Analysis I	3
A A E 637	Applied Econometric Analysis II	3
Economic Analysis		15
At least 9 credits of Agricultural and Applied Economics taught courses at the 500 level or above		
At least 6 credits of Agricultural and Applied Economics taught courses at the 400 level or above		
Other Coursework		6
6 credits at the 300-level or above in any department (including Agricultural and Applied Economics). These credits may include independent study.		
Total Credits		30

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

NAMED OPTION-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://aae.wisc.edu/students/grad-handbook>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 6 credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW-Madison Undergraduate

Up to 7 credits from a UW-Madison undergraduate degree numbered 300 or above are allowed to count toward the degree, with petition from student. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW-Madison University Special

With program approval, students are allowed to count no more than 15 credits of coursework numbered 300 or above taken as a UW-Madison University Special student. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

The A A E Graduate Faculty Committee makes decisions regarding student progress.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

A full-time student is expected to complete the M.S. in A A E in two years. The program can be completed part-time but must be completed in five years.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PEOPLE

Faculty: Professors Foltz (chair), Barham, Chavas, Coxhead, Deller, Gould, Mitchell, Phaneuf, Provencher, Rutherford, Stiegert; Associate Professors Alix-Garcia, Du, Grainger, Hueth, Schechter, Shi; Assistant Professors Conroy, Dower, Parker, Tjernström; Faculty Associate Dong

Lecturers: Beardmore, Glinsmann

AGRICULTURAL AND APPLIED ECONOMICS: RESOURCE AND ENERGY DEMAND ANALYSIS, M.S.

This is a named option within the Agricultural and Applied Economics M.S. (p. 38)

This one-year master's program prepares students for challenging and rewarding careers in the fields of energy, resource, and environmental management. REDA provides graduate training for a smart green world. Our students learn economic theory and quantitative methods in data analysis, attend seminars on current issues in energy & natural resources delivered by industry professionals, and solve real-world research problems. Many REDA alumni are working with energy utilities and energy consulting firms.

Our small class size means students get plenty of individual attention from faculty and staff. The cohort nature of our program fosters peer-to-peer learning and a culture of intellectual curiosity. Completion of this fast track masters requires 31 credits and does not include a thesis. The program begins with a summer online course, continues with two semesters of on campus courses, and concludes with a research project the following summer. Learn more (<http://reda.aae.wisc.edu>).

ADMISSIONS

Our priority application deadline is January 15th for enrollment the following summer. For details on the REDA Application Process, please go to this link:

To Apply (<http://reda.aae.wisc.edu/apply>)

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Students in the Resource and Energy Demand Analysis program are not permitted to accept tuition-waiving assistantships or seek double or dual degrees.

REDA offers partial scholarships to exceptional applicants. Learn more (<http://reda.aae.wisc.edu/apply>).

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
No	No	No	Yes	Yes

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement	31 credits
Minimum Residence Credit Requirement	16 credits
Minimum Graduate Coursework Requirement	All credits in the curriculum are in graduate-level coursework.
Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	Students must maintain a minimum GPA of 3.00 in any course taken as a graduate student, unless probationary admission conditions require higher grades. Students must earn grades of B or above in the core REDA courses: A A E 636, A A E 772, and A A E 776.
Assessments and Examinations	None.
Language Requirements	No language requirements.

REQUIRED COURSES

Code	Title	Credits
Summer Session (Jul–Aug)		
A A E 770	Introduction to Quantitative Methods in Resource and Energy Economics (Online)	3
Fall Semester (Sep–Dec)		
A A E 636	Applied Econometric Analysis I	3
A A E 771	Microeconomics of Resources and Energy: Theory to Practice	3
A A E 777	Survey and Sample Design in Applied Economics	2
A A E 773	Seminar in Resource and Energy Demand Analysis	1-2
PUB AFFR/ ENVIR ST/ URB R PL 809	Introduction to Energy Analysis and Policy	3
Spring Semester (Jan–May)		
A A E 772	Applied Econometrics of Resource and Energy Demand	4
A A E 773	Seminar in Resource and Energy Demand Analysis	1-2
A A E 643	Foundations of Environmental and Natural Resource Economics	3
Select one of the following:		3

A A E/ECON/ ENVIR ST/ URB R PL 671	Energy Economics	
A A E/ECON/ F&W ECOL 531	Natural Resource Economics	
A A E 774	Practicum in Resource and Energy Demand Analysis I	1
Summer Session (May–Jun)		
A A E 776	Practicum in Resource and Energy Demand Analysis II	3
Total Credits		30-32

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

NAMED OPTION-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<http://reda.aae.wisc.edu/handbook.pdf>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 6 credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

With program approval, students are allowed to count no more than 7 credits of undergraduate coursework numbered 300 or above from UW–Madison. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison University Special

No credits earned as a UW–Madison University Special student may be applied toward the program requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

The REDA program director and REDA program coordinator will serve as co-advisors for all REDA students.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Students in the Resource and Energy Demand Analysis program are not permitted to accept assistantships or seek double or dual degrees.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

REDA students receive personalized career advice to help them achieve their professional goals. This includes feedback on resumes and cover letters, panel presentations by REDA alumni, and opportunities to network with local and national professionals in the energy and natural resource fields. Employers recognize the high-quality training that our students receive and often directly recruit REDA students for their job openings.

PEOPLE

Faculty: Professors Foltz (chair), Barham, Chavas, Coxhead, Deller, Gould, Mitchell, Phaneuf, Provencher, Rutherford, Stiegert; Associate Professors Alix-Garcia, Du, Grainger, Hueth, Schechter, Shi; Assistant Professors Conroy, Dower, Parker, Tjernström; Faculty Associate Dong

Lecturers: Beardmore, Glinsmann

AGRICULTURAL AND APPLIED ECONOMICS, PH.D.

Doctoral students are required to develop comprehensive proficiency in economic theory, mathematics, econometrics, and major and minor fields of concentration. In addition to the prerequisites for the master's program, doctoral applicants should also have mathematical statistics and linear algebra. Candidates for the Ph.D. degree must complete the general requirements of the Graduate School, as well as further requirements which are detailed in the department's application material and website (<http://www.aae.wisc.edu>).

The Department of Agricultural and Applied Economics offers graduate degree programs leading to the master of arts, master of science, and doctor of philosophy. Long recognized as one of the top programs in the nation, the department is an active center of research and graduate training in environmental and natural resource economics, the economic development of low-income countries, agricultural economics,

community economics, and more recently, resource and energy demand analysis.

Graduate students select courses from among the department's advanced offerings in these areas. Active department seminar and workshop series complement formal classroom instruction. In addition, nearly all students work as graduate research assistants on projects with individual faculty members. Faculty and students carry out research in virtually every region of the globe, with Latin America, Southeast Asia, and sub-Saharan Africa as the areas of strongest geographical concentration.

While members of the faculty define themselves professionally in terms of the areas of applied economics within which they work, the graduate programs are predicated on the notion that good applied economic analysis requires rigorous and thorough training in economic theory and econometrics. The Ph.D. curriculum is grounded in comprehensive training in economic theory and econometrics and relies on the doctoral core in theory and econometrics offered by Wisconsin's outstanding economics program. When matched with the department's applied courses, which teach students how to use advanced methods to conceptualize and answer contemporary economic problems, this strong core training prepares students for a variety of challenging careers. A A E graduates have taken positions (<https://aae.wisc.edu/graduate-student-placement-information>) in academic research and teaching; economic consulting in the private sector; and economic staffing in public agencies and nongovernmental organizations at the local, state, national, or international level. A majority of the department's Ph.D. graduates take faculty positions at universities and colleges.

Department faculty are affiliated with a broad range of institutes and centers across the campus, including the Gaylord Nelson Institute for Environmental Studies, the Center for Integrated Agricultural Systems, the University Center for Cooperatives, the Renk Agribusiness Institute, Center for Community Economic Development, and the international area studies programs. Each program has its own rich intellectual life of seminars and other activities.

The department provides student office space, a lounge, and IT support for its approximately 80 graduate students. The Taylor-Hibbard Club, the department's graduate student organization, serves as a link between graduate students and the faculty, elects student representatives to department committees, and promotes academic and social activities for its members.

ADMISSIONS

For details on the agricultural and applied economics Ph.D. application process, please visit:

To Apply (<https://aae.wisc.edu/apply>)

For more information on the A A E Ph.D. degree please contact:

Mary Treleven
Graduate Program Coordinator
mtreleven@wisc.edu (<http://guide.wisc.edu/graduate/agricultural-applied-economics/agricultural-applied-economics-ms/>
mtreleven@wisc.edu)
Phone: 608-262-9489

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

The department offers a number of research assistantships, and students have competed well for university-wide fellowships. The department's students have also received nationally competitive fellowships and research grants from the National Science Foundation, the Social Science Research Council, the Fulbright programs, and others. New students applying for the Ph.D. who wish to be reviewed for the university fellowship competition must complete their applications by December 15.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum 51 credits

Credit Requirement

Minimum 32 credits

Residence Credit Requirement

Minimum Graduate Coursework Requirement Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements

Students holding research assistantships are required to maintain an overall 3.2 GPA; grades of B or above in all core curriculum coursework.

Assessments and Examinations Preliminary examinations are required in microeconomic theory and a major field. The microeconomic theory prelim is administered and graded by the faculty in Economics. Students receiving grades of B or better in the microeconomic theory core can choose not to sit for the prelim. Pass rates for A A E students have historically been around 85%. The major field prelim is administered and graded by the A A E faculty. The Ph.D. also requires a dissertation. Most students' dissertation work includes a period of primary data collection and field work either in this country or abroad, often in the developing world.

Language Requirements No language requirements.

Doctoral Minor/Breadth Requirements All doctoral students are required to complete a 9-credit minor.

REQUIRED COURSES

Code	Title	Credits
Economic Theory		
ECON 711	Economic Theory-Microeconomics Sequence	3
ECON 713	Economic Theory: Microeconomics Sequence	3
ECON 712	Economic Theory-Macroeconomics Sequence	3
or ECON 714	Economic Theory; Macroeconomics Sequence	
Statistics and Econometrics		6
ECON 709 & ECON 710	Economic Statistics and Econometrics I and Economic Statistics and Econometrics II	

or

ECON 715 & ECON 716	Econometric Methods and Econometric Methods	
Major Field		9
Complete one of the following fields:		
<i>Community Economics</i>		
Choose 9 credits in consultation with advisor.		
<i>International Development</i>		
A A E 642	Foundations of Development Economics	
A A E 730	Frontiers in Development Economics 1	
A A E 731	Frontiers in Development Economics 2	
<i>Economics of Agriculture</i>		
A A E 641	Foundations of Agricultural Economics	
A A E 746	Frontiers in Agricultural Economics 1	
A A E/ECON 747	Frontiers in Agricultural Economics 2	
<i>Environmental and Resource Economics</i>		
A A E 643	Foundations of Environmental and Natural Resource Economics	
A A E 760	Frontiers in Environmental and Natural Resource Economics 1	
A A E 762	Frontiers in Environmental and Natural Resource Economics 2	
Minor Field		9
Students take 9 credits in either an external or distributed doctoral minor.		
Total Credits		33

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://aae.wisc.edu/students/grad-handbook>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 18 credits of graduate coursework from other institutions. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

No credits from the UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

With program approval students are allowed to count no more than 15 credits of coursework numbered 300 or above taken as a UW–Madison University Special student. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is assigned to a faculty member advisor. To ensure that students are making satisfactory progress toward a degree, students are expected to meet with their advisor at least once a semester.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Students must pass the microeconomic theory requirement before the beginning of year 3. Students must finish all required coursework and pass the major field exam before the beginning of year 4. Students must defend a dissertation proposal before the end of the first semester of year 4.

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Funding packages are offered to selected Ph.D. applicants.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PROGRAM RESOURCES

The Department of Agricultural and Applied Economics invites applied economists to participate in a seminar series. Students get various

presentation opportunities to present their latest research in department and student seminars. All students are required to take a research colloquium which helps students develop their dissertation proposal and plan for their job search. Faculty provide mock interviews and detailed feedback on interviewing skills. A A E placement (<https://aae.wisc.edu/graduate-student-placement-information>) information is on the department website.

LEARNING OUTCOMES

1. Articulates and critiques theories and empirical methods to address research issues in agricultural, environmental, international development, or community economics.
2. Identifies data sources, applies appropriate econometric methodologies, and evaluates quantitative evidence relevant to questions in agricultural, environmental, international development, or community economics.
3. Creates scholarship that makes a substantive contribution to the chosen major field and/or to society.
4. Clearly communicates applied economics issues, methods, and empirical analysis using both written and oral strategies.
5. Recognizes and applies principles of ethical, collegial and professional conduct.

PEOPLE

Faculty: Professors Foltz (chair), Barham, Chavas, Coxhead, Deller, Gould, Mitchell, Phaneuf, Provencher, Rutherford, Stiegert; Associate Professors Alix-Garcia, Du, Grainger, Hueth, Schechter, Shi; Assistant Professors Conroy, Dower, Parker, Tjernström; Faculty Associate Dong

AGRICULTURAL AND LIFE SCIENCES —COLLEGE-WIDE

- Agroecology, M.S. (p. 48)
- Biometry, M.S. (p. 52)
- Development, Doctoral Minor (p. 54)
- Development, Ph.D. (p. 55)
- Plant Breeding and Plant Genetics, Doctoral Minor (p. 58)
- Plant Breeding and Plant Genetics, M.S. (p. 58)
- Plant Breeding and Plant Genetics, Ph.D (p. 61)

AGROECOLOGY, M.S.

Created in 2007, the Agroecology M.S. program at UW–Madison trains students to research and analyze agricultural systems within a broader environmental and socioeconomic context. Key to this endeavor is interdisciplinary expertise, which the agroecology program achieves through working with affiliated faculty members from nearly 20 departments across campus.

A typical cohort consists of 8–12 incoming students with diverse backgrounds and undergraduate majors. Agroecology M.S. students work with faculty on focused projects across a wide range of the traditional

departments of the academy. Our core curriculum brings together these students for a multidisciplinary, agroecological, analysis of agricultural systems in a broadened context.

The agroecology program is supported by the interdisciplinary agroecology cluster, which hired three faculty members in 2002: Michael Bell in community and environmental sociology, Claudio Gratton in entomology, and Randall Jackson in agronomy. These faculty, all still active in the program, were the catalyst for what is now a group of more than 50 faculty affiliates who advise agroecology students and participate in program governance.

The cluster concept is an innovation of the University of Wisconsin in which a core group of faculty is hired into an interdisciplinary area, but have tenure homes in traditional departments.

PROGRAM TRACKS

- The professional practice track trains facilitators to enable broader discussion and negotiation at the interfaces of agriculture and other sectors of society. The goal of this "action-in-society" track is to train analysts to increase understanding about the roles of agricultural systems in multi-functional landscapes, and the public policy that shapes these roles.
- The research track addresses the need for continued research and scholarship in order that discussions and negotiations are well informed. Students will have the opportunity to obtain experience in the scholarship of original research, culminating in the writing of a thesis.

ADMISSIONS

ADMISSIONS AND FREQUENTLY ASKED QUESTIONS

The agroecology program accepts students from a wide range of undergraduate majors, not limited to the social and natural sciences. Because the admissions process is highly competitive, applicants should have a record of strong grades and GRE scores, agroecology-relevant interests and experience, and a commitment to learning in a multidisciplinary program. The deadline for fall semester applications is December 15. Inquiries at other times may be considered.

The initial application process is outlined below. Prospective students should keep in mind, however, that this document-based application is only the first step in the admissions process. Students who are deemed admissible on the merits of these documents must then identify an academic advisor and a plan for funding to be fully admitted. The agroecology program will assist students in this endeavor. More information on the process of seeking out funding and an advisor is available in the program's Student Handbook (<https://agroecology.wisc.edu/documents/agroecology-handbook>). Students who are interested in applying should contact the program administrator.

SUBMIT THE FOLLOWING TO THE UW–MADISON GRADUATE SCHOOL:

- Online application and application fee.
- Graduate Record Examination (GRE) scores. International applicants whose native language is not English are required to take the TOEFL or IELTS. All test scores must be submitted electronically by the

Educational Testing Service to UW–Madison (ETS code 1846). Copies or faxes cannot be accepted.

- Three letters of recommendation. When completing the online application, submit the names and email addresses of three people who will provide letters of recommendation. They will receive instructions on how to upload their letters.

SUBMIT THE FOLLOWING TO THE AGROECOLOGY PROGRAM ADMINISTRATOR:

- Electronically, a one-page Statement of Purpose. In the statement, students should describe their interests and goals and which UW–Madison faculty members they would like to work with. In addition, students should identify which program track they plan to pursue—Research or Public Practice—and state why they are interested in this option. Knowing students' intentions will help the program better understand their academic and career goals. Finally, students should indicate if they intend to pursue a Ph.D. degree after completing the master's in agroecology. Although funding isn't guaranteed, some fellowships require that students intend to continue at the Ph.D. level.
- Electronically, a curriculum vitae.
- Two official copies of transcripts for all undergraduate work (and graduate, if relevant). Many schools are able to send electronic versions of official transcripts directly to the program administrator. Electronic versions are preferred. Please do not send transcripts to the Graduate School.

Frequently asked questions regarding the graduate program are available on the agroecology website (<https://agroecology.wisc.edu/apply>).

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 34 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement 23 out of 34 total credits must be completed in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://public.my.wisc.edu/web/expanded>). Please refer to Agroecology Learning Plans.

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements Students must earn a B or above in all core curriculum coursework.

Assessments and Examinations The research track requires a formal thesis and public defense; the public practice track requires a comprehensive report and public presentation.

Language Requirements No language requirements.

REQUIRED COURSES

Research Track ¹

Code	Title	Credits
AGROECOL 720	Agroecology Field Study	1

AGROECOL/ AGRONOMY/ ENVIR ST 724	Agroecosystems and Global Change ²	3
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AGROECOL 702	The Multifunctionality of Agriculture	3
AGROECOL 710	Agroecology Seminar ³	3

Cross Training Electives⁴ 12

Students will select courses to fulfill their cross-training electives in the categories below. Per Graduate School requirements, at least 5 of the 12 cross training electives must be from UW-Madison at the 700 level or above OR from UW-Madison courses in the 300-699 range that have the “graduate attribute.” By time of graduation, the student will have taken courses in:

Ecology

The following are examples of courses in this category:

BOTANY/ F&W ECOL/ ZOOLOGY 460	General Ecology
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BOTANY 468	Patterns in Biological Design: An Introduction to Systems Biology
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ENVIR ST 506	Modeling and Analysis of Environmental Systems
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AGRONOMY/ BOTANY/ SOIL SCI 370	Grassland Ecology
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Social Science

The following are examples of courses in this category:

C&E SOC or A A E courses on food systems, agricultural technology, the agricultural environment, or agricultural policy

Data Analysis

The following are examples of courses in this category:

Graduate-level GIS, statistics, or qualitative methods course

Agricultural Science

The following are examples of courses in this category:

AGRONOMY 300	Cropping Systems
SOIL SCI 301	General Soil Science

Research and Thesis

AGROECOL 990	Research	12
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Total Credits	34
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¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

² Dr. Chris Kucharik offers AGROECOL/AGRONOMY/ENVIR ST 724 Agroecosystems and Global Change every other fall on odd-numbered years. Professor Kucharik’s AGRONOMY/ATM OCN/SOIL SCI 532 Environmental Biophysics, offered in even-numbered falls, may serve as a substitute for AGRONOMY/AGROECOL/ENVIR ST 724 in the Agroecology core course requirements. Additional substitutes are possible at the discretion of the Agroecology Governance Committee but students must request permission through the program manager.

³ The Seminar in Agroecology is offered both fall and spring semester for 1 credit. Students are encouraged to enroll every semester, but must take at least 3 credits total.

Public Practice Track¹

Code	Title	Credits
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Core Curriculum

AGROECOL 720	Agroecology Field Study	1
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AGROECOL/ AGRONOMY/ ENVIR ST 724	Agroecosystems and Global Change ²	3
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AGROECOL 702	The Multifunctionality of Agriculture	3
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AGROECOL 710	Agroecology Seminar ³	3
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Cross Training Electives 18

Students will select courses to fulfill their cross-training electives in each of the four categories below. Per Graduate School requirements, at least 11 of the 18 cross-training electives must be UW–Madison courses at the 700 level or above OR from UW–Madison courses in the 300–699 range that have the “graduate attribute.” By time of graduation, the student will have taken courses in:

Ecology

The following are examples of courses in this category:

BOTANY/ F&W ECOL/ ZOOLOGY 460	General Ecology
-------------------------------------	-----------------

BOTANY 468	Patterns in Biological Design: An Introduction to Systems Biology
------------	---

ENVIR ST 506	Modeling and Analysis of Environmental Systems
--------------	--

AGRONOMY/ BOTANY/ SOIL SCI 370	Grassland Ecology
--------------------------------------	-------------------

Social Science

The following are examples of courses in this category:

C&E SOC or A A E courses on food systems, agricultural technology, the agricultural environment, or agricultural policy

Community Process

The following are examples of courses in this category:

PUB AFFR/ POLI SCI/ URB R PL 874	Policy-Making Process
--	-----------------------

URB R PL/A A E/ REAL EST 520	Community Economic Analysis
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URB R PL 814	Environmental and Alternative Dispute Resolution in Planning
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Agricultural Science

The following are examples of courses in this category:

AGRONOMY 300	Cropping Systems
SOIL SCI 301	General Soil Science

Project

AGROECOL 990	Research	6
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Total Credits	34
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¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do

not appear in the Graduate School admissions application, and they will not appear on the transcript.

² Dr. Chris Kucharik offers AGROECOL/AGRONOMY/ENVIR ST 724 Agroecosystems and Global Change every other fall on odd-numbered years. Professor Kucharik's AGRONOMY/ATM OCN/SOIL SCI 532 Environmental Biophysics, offered in even-numbered falls, may serve as a substitute for AGRONOMY/AGROECOL/ENVIR ST 724 in the Agroecology core course requirements. Additional substitutes are possible at the discretion of the Agroecology Governance Committee but students must request permission through the program manager.

³ The Seminar in Agroecology is offered both fall and spring semester for 1 credit. Students are encouraged to enroll every semester, but must take at least 3 credits total.

plan with dates and deadlines in place in regard to removal of probationary status.

3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

ADVISOR / COMMITTEE

All students are required to submit a learning plan, signed by their advisor, by the end of their second semester. Note: there are separate learning plans for public practice and research tracks.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

All students must have full funding. Please contact the program administrator.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://agroecology.wisc.edu/documents/agroecology-handbook>) is the repository for all of the program's policies and requirements.

Prior Coursework

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 9 credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

With program approval, up to 7 credits from UW–Madison numbered 300 or above are allowed to count toward the degree. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison University Special

With program approval, students are allowed to count no more than 9 credits of coursework numbered 300 or above taken as a UW–Madison University Special student. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The status of a student can be one of three options:

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Analyze tradeoffs of different agricultural systems embedded within the greater complexity of socio-ecological systems.
2. Consider and synthesize concepts of systems, ecology, and public process.
3. Learn to engage in careful consideration of the social, economic, and environmental outcomes of different industrial and biological processes.
4. Understand the potential of inclusive participatory processes in research and analysis of agroecological systems.
5. Recognize and apply principles of ethical and professional conduct in their coursework, research, and communications in the field of agroecology.

PEOPLE

Faculty: Alatout, Albrecht, Ane, Arriaga, Barak, Bart, Bell, Bland, Bussan, Casler, Collins, Colquhoun, Cox, Cullen, Davis, Dawson, Dennis, Feinstein, Genskow, Gilbert, Gratton, Groves, Harrington, Hogg, Hueth, Jackson (chair), Kucharik, Luschei, MacGuidwin, Mitchell, Morales, Norman, Ozdogan, Patterson, Picasso, Reinemann, Renz, Rickenbach, Rissman,

Ruark, Silva, Steffan, Stoltenberg, Thompson, Tracy, Treves, Ventura, Wattiaux

BIOMETRY, M.S.

Biometry is the development and application of statistical methods to biological problems. At the University of Wisconsin, biometry refers to this application to problems from plant, animal and agricultural biology. (Biostatistics denotes this application to human biology.) The biometry program is an M.S. degree program in the field of biometry.

The program is interdisciplinary, providing formal course work in statistics and biology, consulting experience, and supervised research combining the two areas. Students completing the program will understand biological processes and have the ability to apply and extend a broad range of statistical concepts and techniques to biological problems. This integration of statistics and biology is the distinguishing feature of the program. The biometry program is distinct from the M.S. statistics program in its interdisciplinary emphasis and corresponding reduced depth in statistics. (Students interested in training with statistical consulting as the primary focus should apply for the M.S. in statistics through the statistics department.)

The biometry program is intended for two groups of students:

1. students simultaneously working toward or intending to work toward a Ph.D. in a biological discipline and
2. non-Ph.D. students.

Students who complete the M.S. in Biometry and the Ph.D. in a biological science should be at the forefront of quantitative biological research. Students who stop with the M.S. in Biometry, possibly obtaining another M.S. in a biological science concurrently, will be well suited for positions with industry or government focused on quantitative biological research.

ADMISSIONS

Prospective students may apply for admission to the biometry program without application to any other program. Prospective students may also apply simultaneously with application to another program or after admission into another program. It is anticipated that most students enrolled in the biometry program will be enrolled concurrently in another program.

Acceptance of a prospective student by a statistical and biological co-advisor, who should be identified at the time of application, is necessary for admission into the Program and input from prospective co-advisors will be sought in the admissions process. It is expected that most students will be supported through a biological department or program or with their own funds. Opportunity for financial support through the program is extremely limited.

Applicants to the M.S. program should have completed the following prerequisites:

1. undergraduate calculus (MATH 221 Calculus and Analytic Geometry 1, MATH 222 Calculus and Analytic Geometry 2, and MATH 234 Calculus--Functions of Several Variables or equivalent);
2. a course in statistics (HORT/F&W ECOL/STAT 571 Statistical Methods for Bioscience I and STAT/F&W ECOL/HORT 572 Statistical Methods for Bioscience II or equivalent one year sequence);

3. background courses in biology (e.g., BOTANY/BIOLOGY 130 General Botany, ZOOLOGY/BIOLOGY 101 Animal Biology & ZOOLOGY/BIOLOGY 102 Animal Biology Laboratory, BIOLOGY/BOTANY/ZOOLOGY 151 Introductory Biology & BIOLOGY/BOTANY/ZOOLOGY 152 Introductory Biology).

The background courses in biology are a bare minimum; it is anticipated that almost all successful applicants will have a strong background in some area of biological science. Under extenuating circumstances, students may appeal to the Biometry Executive Committee for exemptions to prerequisites or requirements.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely

online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement	30 credits
Minimum Residence Credit Requirement	16 credits
Minimum Graduate Coursework Requirement	At least half of degree coursework (15 credits out of 30 total credits) must be completed in statistics courses numbered 600 or above (which the statistics department considers to be graduate courses).
Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	A grade of B or better must be received in any course used to fulfill the required and elective course requirements.
Assessments and Examinations	Candidates must complete a project with an emphasis on the integration of statistics and science. A final oral examination is also required upon completion of the coursework and project.
Language Requirements	No language requirements.

REQUIRED COURSES

Code	Title	Credits
Required Coursework		
<i>Intro Math Stat, completed using one of the following sequences:</i>		6
STAT/MATH 309 & STAT/MATH 310	Introduction to Probability and Mathematical Statistics I and Introduction to Probability and Mathematical Statistics II	
STAT 311 & STAT 312	Introduction to Theory and Methods of Mathematical Statistics I and Introduction to Theory and Methods of Mathematical Statistics II	
Or equivalent one-year sequence		
<i>Statistics 600+</i>		6
Students choose graduate-level courses numbered above 600. ¹		
<i>Statistics 500+</i>		3
Students choose graduate-level courses numbered above 500. ²		
<i>Biological</i> ³		9
<i>Consulting Experience</i>		
STAT 699	Directed Study ⁴	3

Research ⁵	3
Total Credits	30

- Excluding STAT/B M I 641 Statistical Methods for Clinical Trials, STAT 698 Directed Study, STAT 699 Directed Study, and STAT 990 Research.
- Excluding STAT/F&W ECOL/HORT 571 Statistical Methods for Bioscience I, STAT/F&W ECOL/HORT 572 Statistical Methods for Bioscience II, STAT 698 Directed Study, and STAT 990 Research. Credits from suitable quantitative courses taught in other (non-biological) departments (e.g., mathematics) may be substituted.
- Excluding introductory statistics courses and research. Other criteria are that at least six credits are taken in a single discipline or in closely related disciplines, at least six credits are taken at the 700 level and above or in courses specifically designated as graduate courses, and a maximum of three credits are obtained in statistically oriented courses (e.g., AGRONOMY/HORT 811 Biometrical Procedures in Plant Breeding).
- Students must complete 3 credits of STAT 699 Directed Study by consulting in the CALS Statistical Consulting Service. (These credits cannot be used for meeting requirements in section C.) This consists of supervised consulting and will provide exposure to statistical issues surrounding a broad range of problems in biology, provide awareness of practical issues such as experiment management, data collection, data recording, etc., and provide experience assisting others in designing experiments and analyzing data. One credit is roughly equivalent to a single project that can be completed in one semester, and involves about 20–30 hours of effort, including meetings with consulting clients, background research, data analyses, etc.
- Each student must complete a project that represents an original contribution to biometry. Examples of such contributions may include a novel analysis of some interesting biological data, the creation and evaluation of a useful experimental design, or the development and/or comparison of statistical methods. The project results are to be presented in a manuscript with emphasis on the integration of statistics and science. The manuscript should be of a quality that can lead to a publication. This requirement will be formalized by enrolling in at least three credits of "Research" (e.g., HORT 990 Research) in the department of one of the co-advisors. (These credits cannot be used for meeting other requirements.) For a student seeking a double M.S., a joint thesis would satisfy this requirement.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<http://www.stat.wisc.edu/sites/default/files/2016-17%20Complete%20PDF%20Handbook.pdf>) is the repository for all of the program's policies and requirements.

Prior Coursework

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 9 credits of graduate coursework from other institutions towards the graduate degree credit and graduate coursework (50%) requirements. Coursework earned five or more years prior to admission to the master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

No credits earned while a UW–Madison University Special student are allowed to count toward the degree.

PROBATION

Candidates who fail to meet satisfactory progress criteria in two consecutive reviews will be dropped from the program.

ADVISOR / COMMITTEE

Students are required to meet with their advisor near the beginning of each semester to discuss course selection and progress.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

If the student is enrolled in a concurrent Ph.D. degree, the student should make application for both the master's and Ph.D. degrees during the semester in which they defend. In other words, the biometry degree should be completed by the semester in which the concurrent Ph.D. degree is completed. It is expected that all enrolled students will complete the program within three years.

OTHER

The biometry program is distinct from the M.S. statistics program in its interdisciplinary emphasis and corresponding reduced depth in statistics. (Students interested in training with statistical consulting as the primary focus should apply for the M.S. in statistics through the statistics department.) The program is intended for two groups of students: (1) students simultaneously working towards or intending to work towards a Ph.D. in some biological discipline, and (2) non-Ph.D. students.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Demonstrates understanding and critical evaluation of statistical methods selected for applications in scientific inquiries.
2. Identifies data sources and study design, and assembles appropriate statistical approaches to data analysis, in a particular scientific field of study.
3. Evaluates and synthesizes data information pertaining to questions in the field of study.
4. Communicates data concepts and analysis results clearly.
5. Recognizes and applies principles of ethical and professional conduct.

PEOPLE

Faculty: Professors Clayton (Statistics/Plant Pathology), Ané (Statistics/Botany), Yandell (Statistics/Horticulture), Zhu (Statistics/Entomology)

DEVELOPMENT, DOCTORAL MINOR

Any student enrolled in a UW–Madison doctoral program can pursue a doctoral minor in development. The doctoral minor offers systematic training in the field of development studies, and is designed to be tailored to students' interests in interdisciplinary approaches to international development. A doctoral minor is an excellent way to gain training in the analysis of issues, approaches, and practices in international development, and to apply to students' research and teaching interests. Courses for the development minor are drawn from over 15 units across campus and cover a diverse array of disciplinary, areas studies, and sectoral approaches to international development.

REQUIREMENTS

Graduate students who wish to pursue an Option A external minor in development should consult the chair of the program. Courses are chosen in conjunction with the chair, who serves as the minor advisor, and the student's departmental advisor. A student may earn a doctoral minor in development with 9 credits, if all 9 credits are in development courses numbered 700 and above. Alternatively, a student may earn the minor with 12 credits if these are courses numbered 300 and above and identified as designed for graduate work. Students are expected to achieve a B or better in all courses used for the minor. Directed study courses do not count toward the minor. Students may not use colloquia or "brown bag" format courses toward requirements of the doctoral minor.

PEOPLE

FACULTY

Samer Alatout, Associate Professor, Community and Environmental Sociology
 Bradford Barham, Professor, Agricultural and Applied Economics
 Katherine Bowie, Professor, Anthropology
 Jean-Paul Chavas, Professor, Agricultural and Applied Economics
 Jane Collins, Professor, Community and Environmental Sociology
 Ian Coxhead, Professor, Agricultural and Applied Economics

Jo Ellen Fair, Professor, African Cultural Studies
 Jeremy Foltz, Professor, Agricultural and Applied Economics
 Theodore Gerber, Professor, Sociology
 Gary Green, Professor, Community and Environmental Sociology
 Kathryn Hendley, Professor, Law
 Harvey Jacobs, Professor, Planning and Landscape Architecture
 Richard Keller, Professor, Medical History and Bioethics
 Nancy Kendall, Professor, Education Policy Studies (**Chair**)
 Heinz Klug, Professor, Law
 Chaeyoon Lim, Associate Professor, Sociology
 Lisa Naughton, Professor, Geography
 Thomas Oliver, Professor, Population Health Sciences
 Gay Seidman, Professor, Sociology
 Ajay Sethi, Associate Professor, Population Health Sciences
 Hemant Shah, Professor, Journalism and Mass Communication
 Randy Stoecker, Professor, Community and Environmental Sociology
 Leann Tigges, Professor, Community and Environmental Sociology
 Aili Tripp, Professor, Political Science/Gender and Women's Studies
 Matthew Turner, Professor, Geography
 Stephen Ventura, Professor, Soil Science
 Stephen Young, Assistant Professor, Geography

STAFF

Linda Davis, Program Coordinator, linda.davis@wisc.edu

Contact information for faculty affiliated with the Development Studies Program can be found on our website (http://devstudies.wisc.edu/people_faculty.html).

DEVELOPMENT, PH.D.

The mission of the Ph.D. program in development studies is to prepare Ph.D. graduates for careers in social science research, policy, and education related to international development issues. The target audience includes people who wish to prepare for careers in international development as well as midcareer international development professionals who will return to their original employer or employment sector after earning a Ph.D. Applicants are expected to have experience working in developing countries. The program emphasizes interdisciplinary social science research and analysis designed to address the problems of developing and emerging economies.

Students from the United States and 40 countries have enrolled since the program was established in 1970. Over 125 alumni work in a wide range of capacities with various government agencies, nongovernment agencies, and universities in the United States and other countries. Most alumni from other countries have returned there to take up senior-level posts in government and other national institutions and in academia.

ADMISSIONS

ADMISSION REQUIREMENTS

Students seeking admission to the program must already hold a master's degree in a social science, preferably with a thesis requiring original research. Previous experience living and/or working in a developing country in some capacity (Peace Corps, non-government organizations, individual initiatives, etc.) is an important aspect of a successful applicant's background. A student's application is judged on the basis of previous academic records, letters of recommendation, a personal statement, and a research proposal. This proposal will form

the cornerstone of the student's program. It will provide the admissions committee with a clear explanation of the direction the student intends to take with the research. In their statement of purpose, students should clearly outline their reasons for choosing the Ph.D. in development.

The online application must contain the following:

- Personal statement
- The research proposal
- Official transcripts for all post-secondary institutions attended
- Three letters of recommendation
- A curriculum vitae

Test Scores. General Graduate Record Exam (GRE) scores for all applicants and TOEFL or IELTS scores for international applicants are required.

Details on the requirements can be found on the program website (<http://devstudies.wisc.edu/admission.html>).

FACULTY ADVISOR

Applicants will not be admitted unless a member of the program faculty agrees to serve as advisor. If the Admissions Committee judges your application favorably, you will receive a provisional admission. You should identify one or more potential advisors from the list of faculty (http://devstudies.wisc.edu/people_faculty.html) and include that information in your Reason for Graduate Study. The Admissions Committee will contact potential advisors in order to obtain a match. Most students remain with their initial advisor; others find a more compatible match during the first semester.

DEADLINE

The Development Studies Program will only consider applications for fall semester admission. The deadline is January 15.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

The Development Studies Program is unable to provide financial support to students, however many students are able to find funding through other means. Prospective students are encouraged to seek support through university departments, private scholarships, or government-sponsored funding. We will enter you in university-wide fellowship competitions for which you are eligible. Admitted students from developing countries may be eligible for one semester of MEO fellowship

support. Most fellowship funds are awarded to students entering in the fall semester. We recommend that you:

1. Write to international organizations and investigate fellowships and grants available from private foundations.
2. Consider the possibility of obtaining support from your own university, your employer, or your government.
3. Contact university departments about the possibility of obtaining an assistantship.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 51 credits

Minimum Residence Credit Requirement 33 credits

Minimum Graduate Coursework Requirement Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.

Overall Graduate GPA Requirement 3.2 GPA required.

Other Grade Requirements No other grade requirements.

Assessments and Examinations Students must complete a written preliminary examination after the student's program coursework has been completed. For more information, see the program's website (http://devstudies.wisc.edu/about_prelim.html).

Language Requirements Language requirements ranging from minimal competency to fluency in a non-native language will vary for each student depending on area of interest. Students are required to have or acquire language competency to complete their dissertation fieldwork

Doctoral Minor/Breadth Requirements Development doctoral students are not required to complete a doctoral minor.

REQUIRED COURSES

Students work with their advisors to design an individualized program of study. All students must complete the Program of Study form by the end of their second semester.

The minimum number of total required credits for the Ph.D. program is 51. Up to 12 credits may be transferred from the student's master's degree provided the committee determines that these credits meet program requirements. Ordinarily courses taken elsewhere may not be used to meet the development studies course requirement. Each program of study will differ, yet coursework should fit the following guidelines:

- **Interdisciplinary seminar:** minimum of 3 credits
- **Major discipline: minimum of 24 credits that include:**
 - a. 3 credits minimum of theory
 - b. 9 credits minimum of methods (must be taken from the department(s) of the major discipline or from course offerings in the Department of Statistics)
 - c. 12 credits minimum of other relevant courses in the major discipline (6 must be from development studies courses)
- **Secondary discipline:** minimum of 9 credits (3 must be from development studies courses)
- **Tertiary areas:** minimum of 9 credits
- **Dissertation research:** minimum of 6 credits

Both the major discipline and the secondary discipline are expected to be in the social sciences. In most instances, students will select from among sociology, economics, geography, anthropology, communication, political science, education, or urban and regional planning as their primary and secondary disciplines. Secondary disciplines may also include areas such as law, history, and public affairs.

At least one development studies course in the discipline of economics and one development studies course in the discipline of sociology must be completed by all students. Courses in the departments of Economics, Agricultural and Applied Economics, and Consumer Science, and economics courses in the School of Business fulfill the economics discipline, while courses in the departments of Sociology and Community and Environmental Sociology fulfill the sociology discipline. Development studies courses are social science graduate-level courses in which the majority of course content pertains specifically to international development. The Development Studies Instructional Committee will

revise this list annually and make appropriate additions and deletions. All development studies courses must have been taken on an A–F basis at UW–Madison and be passed with a grade of B or higher.

"Topics" courses may be taken as development studies core courses by permission of the student's committee and the Instructional Committee. Some examples of such topics courses are included below. Also, note that this list is highly provisional. In particular, there are likely to be some 400-, 500-, and 600-level courses with largely undergraduate clientele that would not be appropriate for development studies graduate students. There are also no doubt a number of courses unknown to us that should be added to the list. At this time we do not see a need to identify development studies core courses for the tertiary areas, or to require that one or more development studies courses be taken in the tertiary areas.

Courses in the tertiary areas may be in a social science discipline, a coherent set of area studies courses, or a coherent set of courses outside of the social sciences. Natural-science tertiary areas/disciplines (e.g., plant science, ecology, tropical agriculture) or interdisciplinary social science areas/disciplines (technology assessment, urban studies) are permitted and encouraged. Tertiary areas/disciplines that do not correspond to current Graduate School programs of study are permitted if they are coherent and well justified.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 12 credits of graduate coursework from other institutions. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

With program approval, students are allowed to count no more than 9 credits of coursework numbered 300 or above taken as a UW–Madison University Special student. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

PROBATION

If students fall below the satisfactory progress requirements, including the 3.2 GPA, the program will launch an assessment exercise analyzing the student's fit in the program.

ADVISOR / COMMITTEE

All students must have an advisor. Admission into the development studies program is contingent on the Admissions Committee obtaining an advisor for the student. After the second semester the student will build a three-member faculty committee. At the time of defense, a five-member interdisciplinary committee must be established. At least 3 members of the dissertation committee must be readers.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

If you need financial support, indicate this on the application form. Prospective students are encouraged to seek support through university departments, private scholarships, or government-sponsored funding. We will enter you in university-wide fellowship competitions for which you are eligible. We will advise you about funding opportunities, when possible.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Articulates research questions reflecting an interdisciplinary perspective on development research, theory and practice.
2. Formulates ideas and/or techniques beyond the current boundaries of knowledge within development studies.
3. Creates scholarship that makes a substantive contribution to development studies.
4. Demonstrates interdisciplinary breadth within their learning experiences.

5. Communicates complex ideas in a clear and understandable manner, both orally and in written form.

6. Fosters ethical and professional conduct in their research, teaching, and policy work.

PEOPLE

FACULTY

Samer Alatout, Associate Professor, Community and Environmental Sociology

Bradford Barham, Professor, Agricultural and Applied Economics

Katherine Bowie, Professor, Anthropology

Jean-Paul Chavas, Professor, Agricultural and Applied Economics

Jane Collins, Professor, Community and Environmental Sociology

Ian Coxhead, Professor, Agricultural and Applied Economics

Jo Ellen Fair, Professor, African Cultural Studies

Jeremy Foltz, Professor, Agricultural and Applied Economics

Theodore Gerber, Professor, Sociology

Gary Green, Professor, Community and Environmental Sociology

Kathryn Hendley, Professor, Law

Harvey Jacobs, Professor, Planning and Landscape Architecture

Richard Keller, Professor, Medical History and Bioethics

Nancy Kendall, Professor, Education Policy Studies (**Chair**)

Heinz Klug, Professor, Law

Chaeyoon Lim, Associate Professor, Sociology

Lisa Naughton, Professor, Geography

Thomas Oliver, Professor, Population Health Sciences

Gay Seidman, Professor, Sociology

Ajay Sethi, Associate Professor, Population Health Sciences

Hemant Shah, Professor, Journalism and Mass Communication

Randy Stoecker, Professor, Community and Environmental Sociology

Leann Tigges, Professor, Community and Environmental Sociology

Aili Tripp, Professor, Political Science/Gender and Women's Studies

Matthew Turner, Professor, Geography

Stephen Ventura, Professor, Soil Science

Stephen Young, Assistant Professor, Geography

STAFF

Linda Davis, Program Coordinator, linda.davis@wisc.edu

Contact information for faculty affiliated with the Development Studies Program can be found on our website (http://devstudies.wisc.edu/people_faculty.html).

PLANT BREEDING AND PLANT GENETICS, DOCTORAL MINOR

REQUIREMENTS

Ph.D. candidates in other degree programs who wish to pursue a doctoral minor in plant breeding and plant genetics must complete 10 credits of work with at least 2 credits from the plant breeding area and 2 credits from another area of the core curriculum. Also required are 2 credits of seminar (HORT/AGRONOMY/GENETICS 957 Seminar-Plant Breeding). Contact the program for more information concerning the minor.

PEOPLE

Faculty: *Agronomy*—Ane, Casler, de Leon, Gutierrez, H. Kaeppler, S. Kaeppler, Tracy; *Biochemistry*—Amasino, Bednarek; *Botany*—Maeda, Spalding, Waller; *Entomology*—Brunet; *Genetics*—Masson, Zhong; *Horticulture*—Bamberg, Bethke, Dawson, Endelman Goldman, Havey (chair), Jansky, Krysan, Nienhuis, Palta, Patterson, Simon, Spooner, Weng, Zalapa; *Plant Pathology*—Bent, Rouse; *Statistics*—Broman, Yandell

PLANT BREEDING AND PLANT GENETICS, M.S.

The program leading to the Master of Science in Plant Breeding and Plant Genetics provides a broad exposure in the various disciplines involved with plant improvement. The program is truly interdisciplinary with faculty participants from agronomy, biochemistry, botany, entomology, genetics, horticulture, plant pathology, and statistics. Research areas include biochemical and molecular genetics, bioinformatics, biometry, cytogenetics and cytology, genecology, genetics, plant breeding, and quantitative genetics.

The Plant Breeding and Plant Genetics Program has been designated a UW System Center of Excellence. The 50–60 students majoring in the program come from throughout the United States and all over the world. Faculty have included members of the National Academy of Sciences, endowed chair professors, and recipients of the National Council of Plant Breeders "Genetic and Plant Breeding Award." The University of Wisconsin leads the nation in the diversity of plant breeding programs and number of graduate students trained. Graduates are found in responsible positions with academic institutions, research institutions, and private companies involved in molecular to cultivar development work.

ADMISSIONS

Satisfactory preparation for graduate study in plant breeding and plant genetics includes undergraduate coursework in mathematics through differential and integral calculus, general chemistry and organic chemistry, physics, and a comprehensive biology sequence that covers both plant and animal biology and includes labs. Some of this preparatory coursework may be completed during the first year of graduate study. Normally, applicants will have had undergraduate training in the biological or agricultural sciences. All applicants must fulfill the minimum entrance requirements of the Graduate School.

Application Deadlines

Spring entry: October 1

Summer entry: December 1

Fall entry: December 1

Application Checklist

A complete application should include the following items:

1. Graduate School Application: We only accept applications submitted online through the Graduate School.
2. Supplementary Application: The supplementary application will appear as a part of the Graduate School's electronic application once the applicant selects plant breeding and plant genetics.

3. **Application Fee:** Instructions for paying the application fee are available through the Graduate School's online application form.
4. **Statement of Purpose:** Your essay should be a concise description of your reasons for choosing to study plant breeding and plant genetics at the University of Wisconsin. Please include your research interests and career goals as well as a description of your preparation for graduate study including relevant coursework, related employment, research experience, publications, presentations, awards, and honors. The essay may be submitted electronically through the Graduate School's online application.
5. **Transcripts:** We require all applicants to submit an unofficial transcript in PDF format to their online application. If an applicant is recommended for admission, then they will be required to submit their official transcript to the Graduate School. International academic records must be submitted in the original language and accompanied by an official English translation. Documents must be issued by the institution with an official seal/stamp and an official signature.
6. **Three Letters of Recommendation**
7. **GRE Scores:** Graduates of U.S. institutions must submit scores from the Graduate Record Exam (GRE). The GRE General Test is required and measures verbal reasoning, quantitative reasoning, critical thinking, and analytical writing skills. GRE Subject Tests are not required, but applicants are encouraged to take either the Biochemistry, Cell and Molecular Biology test or the Biology test. Students should contact the Educational Testing Service for the exact time and location of the examination and general information on this procedure. Results of the examination must be sent to the Graduate School. Our institution code is 1846. There is no department code. At the option of the major professor, graduates of foreign institutions may be required to submit GRE scores in order to qualify for graduate research assistantships. Any student interested in competing for fellowships or scholarships from UW-Madison or the PBPG program must submit GRE scores.
8. **Proof of English Proficiency -** Applicants, whose native language is not English, or whose undergraduate instruction was not in English, must follow the Graduate School's guidelines for proof of English proficiency.

Application Process

Applications for graduate study in plant breeding and plant genetics must be submitted using the Graduate School's online application. If you are applying to multiple programs at the University of Wisconsin, make sure you send application materials to each program.

At this time, the graduate program in plant breeding and plant genetics does not support lab rotations. Applicants are admitted directly into a specific research program with one major professor. Admissions decisions are contingent upon the acceptance of an applicant by a faculty mentor. Because we receive many more applications from qualified applicants than we are able to admit, we highly recommend that applicants directly contact any faculty members with whom they are interested in working.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Financial support may be available through research assistantships (RAs) or fellowships. Fellowships are granted to students with very outstanding academic records. We recommend that your application be complete by the application deadlines in order to be considered for funding. Research assistantships are awarded by individual professors through funds available to their research programs.

Please be advised that you do not need to make a separate application for financial support as your admission application will also serve as an application for assistantships and fellowships.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum 30 credits

Credit Requirement

Minimum 16 credits

Residence Credit Requirement

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall 3.00 GPA required.

Graduate GPA Requirement

Other Grade Requirements Students must earn a B or above in all core curriculum coursework.

Assessments and Examinations A formal M.S. thesis is required.

Language Requirements No language requirements.

REQUIRED COURSES

The specific program of study toward a master's degree is developed by the student and their major professor. Considerable flexibility in the selection of courses is permitted to meet the needs and interests of the candidate. Of the 30 credits required, students must complete a minimum of 12 credits of coursework (not research credit) and at least 9 credits must come from the Core Curriculum, including at least 2 credits in Section A, and 2 credits in Section B or C. Students must also complete 2 credits of Plant Breeding seminar (HORT/AGRONOMY/GENETICS 957 Seminar-Plant Breeding).

Core Curriculum

Code	Title	Credits
<i>A. Plant Breeding</i>		
HORT/AGRONOMY 501	Principles of Plant Breeding	
HORT/AGRONOMY 502	Techniques of Plant Breeding	
HORT/AGRONOMY 812	Selection Theory for Quantitative Traits in Plants	
<i>B. Genetics</i>		
HORT/GENETICS 550	Molecular Approaches for Potential Crop Improvement	
HORT 561		
GENETICS 631	Plant Genetics	
GENETICS 701	Advanced Genetics	
GENETICS/BIOCHEM/BOTANY 840	Regulatory Mechanisms in Plant Development	
HORT 875	Special Topics (Polyploid Genetics; Genetic Analysis with R)	
<i>C. Quantitative Genetics and Biometry</i>		
HORT/F&W ECOL/STAT 572	Statistical Methods for Bioscience II	

HORT/AGRONOMY 811 Biometrical Procedures in Plant Breeding

AGRONOMY 771 Experimental Designs & AGRONOMY 772 and Applications in ANOVA

D. Additional Core Courses

BIOCHEM/BOTANY 621 Plant Biochemistry

PL PATH/BOTANY/ENTOM 505 Plant-Microbe Interactions: Molecular and Ecological Aspects

PL PATH 517 Plant Disease Resistance

GENETICS 633 Population Genetics

BOTANY 500 Plant Physiology

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<http://plantbreeding.wisc.edu/current-students/program-requirements>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 9 credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

With program approval, students are allowed to count no more than 9 credits of coursework numbered 300 or above taken as a UW–Madison University Special student. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

1. Good standing (progressing according to standards; any funding guarantee remains in place).

2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

ADVISOR / COMMITTEE

Every graduate student must have a faculty advisor (Major Professor) who is a member of the PBPG faculty. The Major Professor advises the student about course work and supervises the student's research. The major professor must approve the student's coursework and research direction.

A Master's Committee is composed of at least three current UW–Madison faculty members, including the major professor. The Master's Committee is empowered by the Program to advise the student regarding coursework and thesis content, and conduct the final master's oral examination. Prior to the end of the first year of graduate study the student, in consultation with their major professor, should select two members of the UW–Madison faculty to serve on their Master's Committee. It is the student's responsibility to seek and obtain (verbal) approval from the faculty selected to serve on this committee.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Financial support may be available through research assistantships (RAs) or fellowships. Fellowships are granted to students with very outstanding academic records. We recommend that your application be complete by the application deadlines in order to be considered for funding. Research assistantships are awarded by individual professors through funds available to their research programs.

Student Council (PSGSC) (<http://psgsc.wisc.edu>) fosters communication and social interactions among the graduate students in the plant sciences.

LEARNING OUTCOMES

1. Articulates the theories, research methods, and approaches to inquiry in the field of plant breeding and plant genetics.
2. Identifies sources and assembles evidence pertaining to questions in the field of plant breeding and plant genetics.
3. Demonstrates understanding of the primary field of study in a global context.
4. Selects and utilizes the most appropriate methodologies and practices.
5. Synthesizes information pertaining to questions in the field of plant breeding and plant genetics.
6. Communicates clearly in ways appropriate to the field of plant breeding and plant genetics.
7. Recognizes and applies principles of ethical and professional conduct.

PEOPLE

Faculty: *Agronomy*—Ane, Casler, de Leon, Gutierrez, H. Kaeppler, S. Kaeppler, Tracy; *Biochemistry*—Amasino, Bednarek; *Botany*—Maeda, Spalding, Waller; *Entomology*—Brunet; *Genetics*—Masson, Zhong; *Horticulture*—Bamberg, Bethke, Dawson, Endelman Goldman, Havey (chair), Jansky, Krysan, Nienhuis, Palta, Patterson, Simon, Spooner, Weng, Zalapa; *Plant Pathology*—Bent, Rouse; *Statistics*—Broman, Yandell

PLANT BREEDING AND PLANT GENETICS, PH.D

The program leading to the Doctor of Philosophy in Plant Breeding and Plant Genetics provides a broad exposure in the various disciplines involved with plant improvement. The program is truly interdisciplinary with faculty participants from agronomy, biochemistry, botany, entomology, genetics, horticulture, plant pathology, and statistics. Research areas include biochemical and molecular genetics, bioinformatics, biometry, cytogenetics and cytology, genecology, genetics, plant breeding, and quantitative genetics.

The Plant Breeding and Plant Genetics Program has been designated a UW System Center of Excellence. The 50–60 students majoring in the program come from throughout the United States and all over the world. Faculty have included members of the National Academy of Sciences, endowed chair professors, and recipients of the National Council of Plant Breeders "Genetic and Plant Breeding Award." The University of Wisconsin leads the nation in the diversity of plant breeding programs and number of graduate students trained. Graduates are found in responsible positions with academic institutions, research institutions, and private companies involved in molecular to cultivar development work.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PROGRAM RESOURCES

Close working relationships between plant breeding and plant genetics (PBPG) students and faculty with companies, commodity groups, and NGOs allow for exposure to various work environments and potential employers. Opportunities exist for students to complete short-term internships with companies depending on research interests and progress towards the graduate degrees. The Plant Science Graduate

ADMISSIONS

Satisfactory preparation for graduate study in plant breeding and plant genetics includes undergraduate coursework in mathematics through differential and integral calculus, general chemistry and organic chemistry, physics, and a comprehensive biology sequence that covers both plant and animal biology and includes labs. Some of this preparatory coursework may be completed during the first year of graduate study. Normally, applicants will have had undergraduate training in the biological or agricultural sciences. All applicants must fulfill the minimum entrance requirements of the Graduate School.

Application Deadlines

Spring entry: October 1

Summer entry: January 2

Fall entry: January 2

Application Checklist

A complete application should include the following items:

1. Graduate School Application: We only accept applications submitted online through the Graduate School.
2. Supplementary Application: The supplementary application will appear as a part of the Graduate School's electronic application once the applicant selects plant breeding and plant genetics.
3. Application Fee: Instructions for paying the application fee are available through the Graduate School's online application form.
4. Statement of Purpose: Your essay should be a concise description of your reasons for choosing to study plant breeding and plant genetics at the University of Wisconsin. Please include your research interests and career goals as well as a description of your preparation for graduate study including relevant coursework, related employment, research experience, publications, presentations, awards, and honors. The essay may be submitted electronically through the Graduate School's online application.
5. Transcripts: We require all applicants to submit an unofficial transcript in PDF format to their online application. If an applicant is recommended for admission, then they will be required to submit their official transcript to the Graduate School. International academic records must be submitted in the original language and accompanied by an official English translation. Documents must be issued by the institution with an official seal/stamp and an official signature.
6. Three Letters of Recommendation
7. GRE Scores: Graduates of U.S. institutions must submit scores from the Graduate Record Exam (GRE). The GRE General Test is required and measures verbal reasoning, quantitative reasoning, critical thinking, and analytical writing skills. GRE Subject Tests are not required, but applicants are encouraged to take either the Biochemistry, Cell and Molecular Biology test or the Biology test. Students should contact the Educational Testing Service for the exact time and location of the examination and general information on this procedure. Results of the examination must be sent to the Graduate School. Our institution code is 1846. There is no department code. At the option of the major professor, graduates of foreign institutions may be required to submit GRE scores in order to qualify for graduate research assistantships. Any student interested in competing for fellowships or scholarships from UW–Madison or the PBPG program must submit GRE scores.

8. Proof of English Proficiency: Applicants, whose native language is not English, or whose undergraduate instruction was not in English, must follow the Graduate School's guidelines for proof of English proficiency.

Application Process

Applications for graduate study in plant breeding and plant genetics must be submitted using the Graduate School's online application. If you are applying to multiple programs at the University of Wisconsin, make sure you send application materials to each program.

At this time, the graduate program in plant breeding and plant genetics does not support lab rotations. Applicants are admitted directly into a specific research program with one major professor. Admissions decisions are contingent upon the acceptance of an applicant by a faculty mentor. Because we receive many more applications from qualified applicants than we are able to admit, we highly recommend that applicants directly contact any faculty members with whom they are interested in working.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Financial support may be available through research assistantships (RAs) or fellowships. Fellowships are granted to students with very outstanding academic records. We recommend that your application be complete by the application deadlines in order to be considered for funding. Research assistantships are awarded by individual professors through funds available to their research programs.

Please be advised that you do not need to make a separate application for financial support as your admission application will also serve as an application for assistantships and fellowships.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 51 credits

Minimum Residence Credit Requirement 32 credits

Minimum Graduate Coursework Requirement Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements Ph.D. candidates should maintain a 3.0 GPA in all core curriculum courses and may not have any more than two Incompletes on their record at any one time.

Assessments and Examinations Doctoral students must pass both the oral preliminary and final thesis exams.

Language Requirements No language requirements.

Doctoral Minor/Breadth Requirements The doctoral minor is not required for students in the plant breeding and plant genetics degree. Students who wish to complete a cohesive body of work outside the major may wish obtain a doctoral minor, and should declare the minor at the certification meeting. Minor requirements are determined by the minor department or program.

REQUIRED COURSES

The specific program of study toward a doctoral degree is developed by the student and their major professor. Considerable flexibility in the selection of courses is permitted to meet the needs and interests of the candidate. Of the 51 credits required, students must complete a minimum of 17 credits of coursework (not research credit) and at least 11 credits must come from the Core Curriculum, including at least 2 credits in each of Sections A, B, and C. Students must also complete 3 credits of Plant Breeding seminar (HORT/AGRONOMY/GENETICS 957 Seminar-Plant Breeding).

Core Curriculum

Code	Title	Credits
<i>A. Plant Breeding</i>		
HORT/ AGRONOMY 501	Principles of Plant Breeding	
HORT/ AGRONOMY 502	Techniques of Plant Breeding	
HORT/ AGRONOMY 812	Selection Theory for Quantitative Traits in Plants	
<i>B. Genetics</i>		
HORT/ GENETICS 550	Molecular Approaches for Potential Crop Improvement	
HORT 561		
GENETICS 631	Plant Genetics	
GENETICS 701	Advanced Genetics	
GENETICS/ BIOCHEM/ BOTANY 840	Regulatory Mechanisms in Plant Development	
HORT 875	Special Topics (Polyploid Genetics; Genetic Analysis with R)	
<i>C. Quantitative Genetics and Biometry</i>		
HORT/F&W ECOL/ STAT 572	Statistical Methods for Bioscience II	
HORT/ AGRONOMY 811	Biometrical Procedures in Plant Breeding	
AGRONOMY 771 & AGRONOMY 772	Experimental Designs and Applications in ANOVA	
<i>D. Additional Core Courses</i>		
BIOCHEM/ BOTANY 621	Plant Biochemistry	
PL PATH/ BOTANY/ ENTOM 505	Plant-Microbe Interactions: Molecular and Ecological Aspects	
PL PATH 517	Plant Disease Resistance	
GENETICS 633	Population Genetics	
BOTANY 500	Plant Physiology	

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the

degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<http://plantbreeding.wisc.edu/current-students/program-requirements>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 9 credits of graduate coursework from other institutions. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

With program approval, students are allowed to count no more than 9 credits of coursework numbered 300 or above taken as a UW–Madison University Special student. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

PROBATION

A semester GPA below 3.0 will result in the student being placed on academic probation. If a semester GPA of 3.0 is not attained during the subsequent semester of full time enrollment (or 12 credits of enrollment if enrolled part-time) the student may be dismissed from the program or allowed to continue for one additional semester based on advisor appeal to the Graduate School.

ADVISOR / COMMITTEE

Every graduate student must have a faculty advisor (Major Professor) who is a member of the PBPG faculty. The Major Professor advises the student about course work and supervises the student's research. The major professor must approve the student's coursework and research direction.

A PhD Committee is composed of at least 5 members, the major professor and four more who must be UW–Madison graduate faculty or former UW–Madison graduate faculty up to one year after resignation or retirement. The Graduate School requires that at least three committee members are designated as readers. Readers are committee members who commit themselves to closely reading and reviewing the entire dissertation. The committee is empowered by the Program to advise and evaluate the student with regards to certification, administer the preliminary examination, oversee progress meetings, approve thesis composition, and conduct the final PhD examination.

The student, in consultation with their Major Professor(s), should select four additional members of the UW-Madison faculty to serve on their PhD Committee prior to the end of the second semester of graduate study in order to convene a meeting to discuss the student's coursework and plan for certification. Certification is the process by which the PhD Committee certifies that the student has completed the formal coursework requirements of the PhD. This coursework plan must be approved by the student's PhD

Committee, and for this reason it is important for the student to convene a meeting of their PhD committee prior to the end of their second semester so that additional courses suggested by the committee may be taken during the student's second year of graduate study. The Graduate School requires at least one member of the PhD Committee to be from outside the academic department of the major professor. Students choosing Minor Option A typically include their minor professor as a member of their PhD Committee. It is the student's responsibility to seek and obtain (verbal) approval from the faculty members selected to serve on this committee.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Financial support may be available through research assistantships (RAs) or fellowships. Fellowships are granted to students with very outstanding academic records. We recommend that your application be complete by the application deadlines in order to be considered for funding. Research assistantships are awarded by individual professors through funds available to their research programs.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PROGRAM RESOURCES

Close working relationships between plant breeding and plant genetics (PBPG) students and faculty with companies, commodity groups, and NGOs allow for exposure to various work environments and potential employers. Opportunities exist for students to complete short-term internships with companies depending on research interests and progress towards the graduate degrees. The Plant Science Graduate Student Council (PSGSC) (<http://psgsc.wisc.edu>) fosters communication and social interactions among the graduate students in the plant sciences.

LEARNING OUTCOMES

1. Articulates research problems, potentials, and limits with respect to knowledge within the field of plant breeding and plant genetics.
2. Formulates ideas, concepts, designs, and/or techniques beyond the current boundaries of knowledge within the field of plant breeding and plant genetics.
3. Creates research that makes a substantive contribution.
4. Demonstrates breadth within their learning experiences.
5. Advances contributions of the field of plant breeding and plant genetics to society.
6. Communicates complex ideas in a clear and understandable manner.
7. Fosters ethical and professional conduct.

PEOPLE

Faculty: *Agronomy*—Ane, Casler, de Leon, Gutierrez, H. Kaeppler, S. Kaeppler, Tracy; *Biochemistry*—Amasino, Bednarek; *Botany*—Maeda, Spalding, Waller; *Entomology*—Brunet; *Genetics*—Masson, Zhong; *Horticulture*—Bamberg, Bethke, Dawson, Endelman Goldman, Havey (chair), Jansky, Krysan, Nienhuis, Palta, Patterson, Simon, Spooner, Weng, Zalapa; *Plant Pathology*—Bent, Rouse; *Statistics*—Broman, Yandell

AGRONOMY

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Agronomy, Doctoral Minor (p. 65)
- Agronomy, M.S. (p. 66)
- Agronomy, Ph.D. (p. 69)

PEOPLE

Faculty: Professors Albrecht, Ane, Casler, Conley, Duke, Henson, Jackson, Jahn, S. Kaeppler, Kucharik (chair), Lauer, Stoltenberg, Tracy, Undersander; Associate Professors de Leon, H. Kaeppler, Renz; Assistant Professors Gutierrez, Picasso, Werle

AGRONOMY, DOCTORAL MINOR

Students enrolled in other Ph.D. programs may pursue a doctoral minor in agronomy. Students with interest in gaining training in crop production and management, weed science, agroecosystems, molecular biology, plant physiology and biochemistry or plant breeding to supplement their primary disciplinary program may consider an Option A minor in agronomy.

REQUIREMENTS

Graduate students who wish to pursue a doctoral minor in agronomy must have an agronomy faculty member serve as the minor professor on their research committees (oral preliminary exam committee and final exam committee).

Courses are chosen in conjunction with the minor professor and the committee to provide relevant breadth in the student's training. A student may earn a doctoral minor in agronomy with 9 credits in exclusively graduate-level agronomy courses (courses numbered 700 and above, or between 300 and 699 marked with the graduate attribute in the Course Guide).

Alternatively, up to 3 graduate-level credits of plant, ecology, or environment-related coursework from other departments could be included in the 9-credit total.

At least 1 credit (and up to 2 credits) must be AGRONOMY 920 Seminar. The proposed course plan to satisfy Option A minor must be approved by the Department of Agronomy Graduate Studies Committee.

PEOPLE

ADMINISTRATION

Chris Kucharik, Chair

Shawn Conley and Natalia De Leon, Associate Chairs

Sandra Bennett, Department Administrator

PROGRAM FACULTY AND THEIR AREAS OF STUDY

Ken Albrecht, Professor - Forages and Grazing Systems

Jean-Michel Ané, Professor - Plant-Microbe Symbioses

Shawn Conley, Professor - Soybean & Small Grain Production

Natalia De Leon, Professor - Plant Breeding and Plant Genetics

Stan Duke, Professor - Barley Malt Quality

Lucía Gutiérrez, Assistant Professor - Cereal Crops Breeding

Cynthia Henson, Professor - Plant Physiology

Randy Jackson, Professor - Grassland Ecosystems, Agroecology

Molly Jahn, Professor - Risk in Food Systems

Heidi Kaeppler, Associate Professor - Cereal Crops Genetics

Shawn Kaeppler, Professor - Plant Breeding and Plant Genetics

Chris Kucharik, Professor and Chair - Ecosystems, Land Management, Biogeochemical Cycling

Joe Lauer, Professor - Crop Management (Corn)

Mali Mahalingam, Assistant Professor - Plant Genomics, Stress Physiology

Valentín Picasso, Assistant Professor - Forages and Grazing Systems, Agroecology, Sustainable Agriculture

Mark Renz, Associate Professor - Weed Science

David Stoltenberg, Professor - Cropping Systems, Weed Science, Agroecology, Sustainable Agriculture

Bill Tracy, Professor - Plant Breeding and Plant Genetics (Sweet Corn)

Dan Undersander, Professor - Forages and Grazing Systems
Rodrigo Werle, Assistant Professor - Extension Cropping Systems, Weed Scientist

For full descriptions of each faculty's research interests, see their individual pages on the Agronomy website (<http://www.agronomy.wisc.edu>).

AGRONOMY, M.S.

The mission of the Department of Agronomy is to generate, integrate and apply knowledge about crop plants that are grown for food, feed, and the general benefit of humankind. We find and disseminate answers to problems and discover opportunities concerning efficiency and sustainability of production, improvements in quality, and methods for safe and environmentally sound practices.

An education in agronomy prepares graduates for professional careers in research, teaching, and extension at academic and government institutions, and for research and technical careers in industry in areas such as biotechnology, agroecology, cropping systems ecology and ecosystem modeling, crop management and protection, plant breeding, biochemistry, genetics, and genomics.

The UW–Madison Department of Agronomy is one of the most highly ranked and regarded departments in the nation. We are committed to integrated research, development, teaching, and outreach to address issues of food scarcity, food quality and nutrition, environmental impact, and sustainability.

The department maintains or has access to excellent facilities for research, including fully equipped laboratories, growth chambers and greenhouses, and complete field facilities at nearby agricultural research stations and throughout the state. Students have access to highly controlled plant growth facilities at the university's Biotron and to special analytical services provided by the campus Biotechnology Center. The Wisconsin Crop Innovation Center opened in 2017 and houses a cutting edge transgenic plant laboratory and 26,000 square feet of highly controlled greenhouse space and other lab facilities.

ADMISSIONS

Candidates for graduate study should have a bachelor's degree in agriculture or in the biological, chemical, or physical sciences. Contact the department or visit the website (<http://agronomy.wisc.edu/graduate-admissions/for-prospective-graduate-students>) for details. Students considering graduate study in agronomy should make inquiries to the department several months before the desired enrollment date. In addition to the online application, the department requires a statement of purpose, GRE scores, transcripts, and three letters of recommendation.

Candidates for department research and teaching assistantships can be accepted twice a year, at summer/fall and spring admissions; however,

candidates for university fellowships must apply by January 2 for fall enrollment.

Department deadlines are October 1 for spring admission and February 1 for summer/fall admission.

Agronomy admissions FAQs (<https://agronomy.wisc.edu/graduate-admissions/for-prospective-graduate-students>).

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

The vast majority of our graduate students are awarded research assistantships to fund their education. These RA appointments come with tuition remission and a monthly stipend for living expenses. These assistantships come directly from the mentoring faculty; as a result, space in our graduate program is extremely limited.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich,

interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement The minimum graduate coursework (50%) requirement states that at least 50% of credits applied toward the program's graduate degree credit requirement must be courses designed for graduate work (this includes but is not limited to online, thesis/research, independent study, and practicum/internship credits). For the agronomy department that is 15 credits.

The official university documentation of "graduate level" coursework is identified with the graduate course attribute (G50%) in the university's Course Guide and Class Search (<https://public.my.wisc.edu/web/expanded>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Students intending to terminate their graduate program at the UW with the M.S. degree are required to present an exit seminar, preferably prior to their M.S. oral exam.

Language Requirements The agronomy department does not have any language requirements.

REQUIRED COURSES

Code	Title	Credits
M.S. Requirements		
	1 year of general chemistry with labs	
	1 semester of organic chemistry with labs	
	4 semesters of biology distributed among three of the following four areas:	
	biochemistry	
	genetics	
	plant morphology, anatomy, or physiology	
	taxonomy, evolution, or ecology.	

Choose one of the following:

AGRONOMY 920 Seminar

AGRONOMY/
GENETICS/
HORT 957 Seminar-Plant Breeding

Requests for deviations from these requirements can be made to the Graduate Studies Committee with permission and advice from your advisor.

Your undergraduate courses may be used towards this requirement, if the courses were rigorous and met the expectations of graduate work. Coursework earned five or more years prior to admission for your master's cannot be counted. These undergraduate classes can only count towards this requirement; they cannot count towards the Minimum Graduate Credit Residence Requirement (16 credits). See Prior Coursework.

Teaching experience is not required but it is highly recommended.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<http://agronomy.wisc.edu/graduate-handbook>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

For well-prepared advanced students, the program may accept up to 9 credits of prior graduate coursework from other institutions toward the minimum graduate degree credit and minimum graduate coursework (50%) requirement. The minimum graduate residence credit requirement can be satisfied only with courses taken as a graduate student at UW-Madison.

UW-Madison Undergraduate

For well-prepared advanced students, the program may decide to accept up to 7 credits numbered 300 or above completed at UW-Madison toward fulfillment of minimum degree and minor credit requirements. This work would not be allowed to count toward the 50% graduate coursework minimum unless taken at the 700 level or above.

UW-Madison University Special

The program may decide to accept up to 9 University Special student credits as fulfillment of the minimum graduate residence, graduate degree, or minor credit requirements on occasion as an exception (on a case-by-case basis). UW-Madison coursework taken as a University Special student

would not be allowed to count toward the 50% graduate coursework minimum unless taken at the 700 level or above.

PROBATION

If students were admitted on probation and they satisfy the conditions outlined at the time of admission, probationary status will be removed automatically. Once their studies have begun, students are expected to make satisfactory progress toward their degree.

Students must be in good academic standing with the Graduate School, their program, and their advisor. The Graduate School regularly reviews the record of any student who received grades of BC, C, D, F, or I in courses numbered 300 or above, or grades of U in research and thesis. This review could result in academic probation with a hold on future enrollment, and the student may be suspended from graduate studies.

The Graduate School may also put students on probation for incompletes not cleared within one term. All incomplete grades must be resolved before a degree is granted.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the student is expected to meet with their advisor on a regular basis. The advisor is a faculty member, or sometimes two members, from agronomy responsible for providing advice regarding graduate studies.

Students are usually admitted to the agronomy department directly into the mentorship of a specific advisor, without completing any rotations.

You will choose your thesis committee together with your advisor. The committee consists of your advisor and at least two other faculty members. One faculty member may be from another department.

CREDITS PER TERM ALLOWED

The Graduate School considers full-time enrollment to be 8-15 graded credits taken at 300 or above, excluding pass/fail and audit, during the fall and spring semesters, and 4-12 credits during the summer term. If students elect not to enroll as full-time students as defined by the Graduate School, they are responsible for knowing about possible obligations that may require full-time status. Such obligations may include visa eligibility, fellowships, assistantships, financial aid, external funding agencies, and program satisfactory progress requirements.

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

n/a

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PROGRAM RESOURCES

The agronomy department does not require but encourages all students to complete an Individual Development Plan (IDP). As you begin your Graduate School career, an Individual Development Plan (IDP) is an essential tool to help you:

- (1) Assess your current skills and strengths
- (2) Make a plan for developing skills that will help you meet your academic and professional goals
- (3) Communicate with your advisors and mentors about your evolving goals and related skills.

For graduate students in the natural sciences and engineering, the American Association for the Advancement of Science (AAAS) online tool provides a comprehensive set of materials and exercises that will guide you through the process of self-assessment, career exploration, goal-setting, and implementation of your plan. Set up a free account to create and monitor your IDP at myidp.sciencecareers.org (<http://myidp.sciencecareers.org>).

The UW–Madison IDP template (<https://grad.wisc.edu/pd/idp>), which includes instructions and examples, is flexible and appropriate for all disciplines.

LEARNING OUTCOMES

1. Articulates, critiques, or elaborates the theories, research methods, and approaches to inquiry or schools of practice in the field of study.
2. Identifies sources and assembles evidence pertaining to questions or challenges in the field of study.
3. Demonstrates understanding of the primary field of study in a historical, social, or global context.
4. Selects and/or utilizes the most appropriate methodologies and practices.
5. Evaluates or synthesizes information pertaining to questions or challenges in the field of study.
6. Communicates clearly in ways appropriate to the field of study.
7. Recognizes and applies principles of ethical and professional conduct.

PEOPLE

ADMINISTRATION

Chris Kucharik, Chair

Shawn Conley and Natalia De Leon, Associate Chairs

Sandra Bennett, Department Administrator

PROGRAM FACULTY AND THEIR AREAS OF STUDY

Ken Albrecht, Professor - Forages and Grazing Systems

Jean-Michel Ané, Professor - Plant-Microbe Symbioses

Shawn Conley, Professor - Soybean & Small Grain Production

Natalia De Leon, Professor - Plant Breeding and Plant Genetics

Stan Duke, Professor - Barley Malt Quality

Lucía Gutiérrez, Assistant Professor - Cereal Crops Breeding

Cynthia Henson, Professor - Plant Physiology

Randy Jackson, Professor - Grassland Ecosystems, Agroecology

Molly Jahn, Professor - Risk in Food Systems

Heidi Kaeppler, Associate Professor - Cereal Crops Genetics

Shawn Kaeppler, Professor - Plant Breeding and Plant Genetics

Chris Kucharik, Professor - Ecosystems, Land Management, Biogeochemical Cycling

Joe Lauer, Professor - Crop Management (Corn)

Mali Mahalingam, Assistant Professor - Plant Genomics, Stress Physiology

Valentín Picasso, Assistant Professor - Forages and Grazing Systems, Agroecology, Sustainable Agriculture

Mark Renz, Associate Professor - Weed Science

David Stoltenberg, Professor - Cropping Systems, Weed Science, Agroecology, Sustainable Agriculture

Bill Tracy, Professor - Plant Breeding and Plant Genetics (Sweet Corn)

Dan Undersander, Professor - Forages and Grazing Systems

Rodrigo Werle, Assistant Professor - Extension Cropping Systems, Weed Scientist

For full descriptions of each faculty's research interests, see their individual pages on the Agronomy website (<http://www.agronomy.wisc.edu>).

AGRONOMY, PH.D.

The mission of the Department of Agronomy is to generate, integrate and apply knowledge about crop plants that are grown for food, feed, and the general benefit of humankind. We find and disseminate answers to problems and discover opportunities concerning efficiency and sustainability of production, improvements in quality, and methods for safe and environmentally-sound practices.

An education in agronomy prepares graduates for professional careers in research, teaching, and extension at academic and government institutions, and for research and technical careers in industry in areas such as biotechnology, agroecology, cropping systems ecology and

ecosystem modeling, crop management and protection, plant breeding, biochemistry, genetics, and genomics.

The UW–Madison Department of Agronomy is one of the most highly ranked and regarded departments in the nation. We are committed to integrated research, development, teaching, and outreach to address issues of food scarcity, food quality and nutrition, environmental impact, and sustainability.

The department maintains or has access to excellent facilities for research, including fully equipped laboratories, growth chambers and greenhouses, and complete field facilities at nearby agricultural research stations and throughout the state. Students have access to highly controlled plant growth facilities at the university's Biotron and to special analytical services provided by the campus Biotechnology Center. The Wisconsin Crop Innovation Center opened in 2017 and houses a cutting edge transgenic plant laboratory and 26,000 square feet of highly controlled greenhouse space and other lab facilities.

ADMISSIONS

Candidates for graduate study should have a bachelor's degree in agriculture or in the biological, chemical, or physical sciences. Contact the department or visit the website (<http://agronomy.wisc.edu/graduate-admissions/for-prospective-graduate-students>) for details. Students considering graduate study in agronomy should make inquiries to the department several months before the desired enrollment date. In addition to the online application, the department requires a statement of purpose, GRE scores, transcripts, and three letters of recommendation.

Candidates for department research and teaching assistantships can be accepted twice a year, at summer/fall and spring admissions; however, candidates for university fellowships must apply by January 2 for fall enrollment.

Department deadlines are October 1 for spring admission and February 1 for summer/fall admission.

Agronomy admissions FAQs. (<https://agronomy.wisc.edu/graduate-admissions/for-prospective-graduate-students>)

The following courses are entrance requirements to pursue a Ph.D. in the Department of Agronomy. Applicants are required to have taken the following coursework:

- 1 year general chemistry with labs
- 1 semester organic chemistry with labs
- 1 semester physics
- 1 semester calculus
- 1 semester statistics
- 4 semesters of biology distributed among three of the following four areas: biochemistry; genetics; plant morphology, anatomy or physiology; and taxonomy, evolution, or ecology.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

The vast majority of our graduate students are awarded research assistantships to fund their education. These RA appointments come with tuition remission and a monthly stipend for living expenses. These assistantships come directly from the mentoring faculty; as a result, space in our graduate program is extremely limited. To find additional funding, click on the link to the Graduate School's funding page below.

Graduate School: Student Funding (<https://grad.wisc.edu/studentfunding/prospective>)

The following are the Graduate School's minimum stipend levels, for 50 percent appointments, beginning July 1, 2017 for annual appointments and August 21, 2017 for academic appointments:

Research assistantship
Annual: \$22,081
Academic: \$18,067

Teaching assistantship
Standard / academic: \$16,196
Senior / academic: \$18,067

Project assistantship
Annual: \$19,795
Academic: \$16,196

PA grader/reader
Hourly rate: \$17.36

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules.

Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 51 credits

Minimum Residence Credit Requirement 32 credits

Minimum Graduate Coursework Requirement The minimum graduate coursework (50%) requirement states that at least 50% of credits applied toward the program's graduate degree credit requirement must be courses designed for graduate work (this includes but is not limited to online, thesis/research, independent study, and practicum/internship credits). For the agronomy department that is 26 credits.

The official University documentation of "graduate level" coursework is identified with the graduate course attribute (G50%) in the University's Course Guide and Class Search (<https://public.my.wisc.edu/web/expanded>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Doctoral students are required to take a comprehensive preliminary/oral examination after they have cleared their record of all Incomplete and Progress grades (other than research and dissertation).

As a Ph.D. student you must take your final oral exam within five years of passing the prelim or you will be required to take another preliminary examination and be admitted to candidacy for a second time. All Ph.D. candidates are required to present an exit seminar. This often is most convenient just prior to the final examination, or you may present the seminar as part of the Agronomy Colloquium. The final examination ordinarily covers your dissertation and the general fields of your major and minor studies.

Deposit of the doctoral dissertation in the Graduate School is required.

Language Requirements The agronomy department does not have any language requirements.

Doctoral Minor/Breadth Requirements Students completing a Ph.D. in agronomy must also complete requirements for a minor in another department.

The course work for completion of the minor requirement is decided at the time of certification, with approval of the minor advisor. The minor department sets the requirements for minor completion. In both options, one course cross-listed with the major may be used for the minor, so long as it is staffed by the minor department and is not applicable to any requirements of the major.

The type and completion of the minor is reported to the Graduate School on the preliminary examination warrant.

REQUIRED COURSES

Code	Title	Credits
	1 year of general chemistry with labs	
	1 semester of organic chemistry with labs	
	1 semester of physics	
	1 semester of calculus	
	1 semester of statistics	
	4 semesters of biology distributed among three of the following four areas:	
	biochemistry	
	genetics	
	plant morphology, anatomy, or physiology	
	taxonomy, evolution, or ecology.	
	Two semesters of one or both of the following:	
AGRONOMY 920	Seminar	
AGRONOMY/ GENETICS/ HORT 957	Seminar-Plant Breeding	

These classes can be taken in your undergraduate or master's career. At the department's discretion, you may be admitted with deficiencies. These deficiencies are expected to be completed within the first semester of study. The Agronomy Department requires two full-time semesters in residence for a Ph.D. Your certification committee can petition

the Graduate Studies Committee for a deviation from the residence requirement under unique circumstances.

Teaching experience is not required, but is highly recommended by the department and the time for completion of this recommended experience should be included on the certification form.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<http://agronomy.wisc.edu/graduate-handbook>) is the repository for all of the program's policies and requirements.

Prior Coursework

Graduate Work from Other Institutions

For well-prepared advanced students, the program may accept up to 12 credits of prior graduate coursework from other institutions toward the minimum graduate degree credit and minimum graduate coursework (50%) requirement. The minimum graduate residence credit requirement can be satisfied only with courses taken as a graduate student at UW-Madison.

UW-Madison Undergraduate

For well-prepared advanced students, the program may decide to accept up to 7 credits numbered 300 or above completed at UW-Madison toward fulfillment of minimum degree and minor credit requirements. This work would not be allowed to count toward the 50% graduate coursework minimum unless taken at the 700 level or above.

UW-Madison University Special

The program may decide to accept up to 12 University Special student credits as fulfillment of the minimum graduate residence, graduate degree, or minor credit requirements on occasion as an exception (on a case-by-case basis). UW-Madison coursework taken as a University Special student would not be allowed to count toward the 50% graduate coursework minimum unless taken at the 700 level or above.

PROBATION

If students were admitted on probation and they satisfy the conditions outlined at the time of admission, probationary status will be removed automatically. Once their studies have begun, students are expected to make satisfactory progress toward their degree.

Students must be in good academic standing with the Graduate School, their program, and their advisor. The Graduate School regularly reviews the record of any student who received grades of

BC, C, D, F, or I in courses numbered 300 or above, or grades of U in research and thesis. This review could result in academic probation with a hold on future enrollment, and the student may be suspended from graduate studies.

The Graduate School may also put students on probation for incompletes not cleared within one term. All incomplete grades must be resolved before a degree is granted.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the student is expected to meet with their advisor on a regular basis. The advisor is a faculty member, or sometimes two members, from Agronomy responsible for providing advice regarding graduate studies.

Students are usually admitted to the agronomy department directly into the mentorship of a specific advisor, without completing any rotations.

You are required to form, under the guidance of your advisor, a committee to oversee your Ph.D. degree progress. The four or five committee members are faculty of the agronomy department and related departments. The department requires that at least one of the four committee members comes from another department. While not strictly required, continuity in membership of the student's Certification Committee, Preliminary Examination Committee, and Final Examination Committee is strongly encouraged. At least three committee members of all doctoral/final oral examination committees must be designated as readers.

CREDITS PER TERM ALLOWED

The Graduate School considers full-time enrollment to be 8–15 graded credits taken at 300 or above, excluding pass/fail and audit, during the fall and spring semesters, and 4–12 credits during the summer term. If students elect not to enroll as full-time students as defined by the Graduate School, they are responsible for knowing about possible obligations that may require full-time status. Such obligations may include visa eligibility, fellowships, assistantships, financial aid, external funding agencies, and program satisfactory progress requirements.

Dissertators take exactly 3 credits per semester.

TIME CONSTRAINTS

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

OTHER

n/a

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PROGRAM RESOURCES

The agronomy department does not require but encourages all students to complete an Individual Development Plan (IDP). As you begin your Graduate School career, an Individual Development Plan (IDP) is an essential tool to help you:

1. Assess your current skills and strengths
2. Make a plan for developing skills that will help you meet your academic and professional goals
3. Communicate with your advisors and mentors about your evolving goals and related skills.

For graduate students in the natural sciences and engineering, the American Association for the Advancement of Science (AAAS) online tool provides a comprehensive set of materials and exercises that will guide you through the process of self-assessment, career exploration, goal-setting, and implementation of your plan. Set up a free account to create and monitor your IDP at myidp.sciencecareers.org (<http://myidp.sciencecareers.org>).

The UW-Madison IDP template (<https://grad.wisc.edu/pd/idp>), which includes instructions and examples, is flexible and appropriate for all disciplines.

LEARNING OUTCOMES

1. Articulates research problems, potentials, and limits with respect to theory, knowledge, or practice within the field of study.
2. Formulates ideas, concepts, designs, and/or techniques beyond the current boundaries of knowledge within the field of study.
3. Creates research, scholarship, or performance that makes a substantive contribution.
4. Demonstrates breadth within their learning experiences.
5. Advances contributions of the field of study to society.
6. Communicates complex ideas in a clear and understandable manner.
7. Fosters ethical and professional conduct.

PEOPLE

ADMINISTRATION

Chris Kucharik, Chair

Shawn Conley and Natalia De Leon, Associate Chairs

Sandra Bennett, Department Administrator

PROGRAM FACULTY AND THEIR AREAS OF STUDY

Ken Albrecht, Professor - Forages and Grazing Systems

Jean-Michel Ané, Professor - Plant-Microbe Symbioses

Shawn Conley, Professor - Soybean & Small Grain Production

Natalia De Leon, Professor - Plant Breeding and Plant Genetics

Stan Duke, Professor - Barley Malt Quality

Lucía Gutiérrez, Assistant Professor - Cereal Crops Breeding

Cynthia Henson, Professor - Plant Physiology

Randy Jackson, Professor - Grassland Ecosystems, Agroecology

Molly Jahn, Professor - Risk in Food Systems

Heidi Kaeppler, Associate Professor - Cereal Crops Genetics

Shawn Kaeppler, Professor - Plant Breeding and Plant Genetics

Chris Kucharik, Professor - Ecosystems, Land Management, Biogeochemical Cycling

Joe Lauer, Professor - Crop Management (Corn)

Mali Mahalingam, Assistant Professor - Plant Genomics, Stress Physiology

Valentín Picasso, Assistant Professor - Forages and Grazing Systems, Agroecology, Sustainable Agriculture

Mark Renz, Associate Professor - Weed Science

David Stoltenberg, Professor - Cropping Systems, Weed Science, Agroecology, Sustainable Agriculture

Bill Tracy, Professor - Plant Breeding and Plant Genetics (Sweet Corn)

Dan Undersander, Professor Forages and Grazing Systems

Rodrigo Werle, Assistant Professor - Extension Cropping Systems, Weed Scientist

For full descriptions of each faculty's research interests, see their individual pages on the Agronomy website (<http://www.agronomy.wisc.edu>).

ANIMAL SCIENCES

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Animal Sciences, Doctoral Minor (p. 73)
- Animal Sciences, M.S. (p. 73)
- Animal Sciences, Ph.D. (p. 78)

PEOPLE

Faculty: Professors Crenshaw (chair), Albrecht, Claus, Khatib, Kirkpatrick, Parrish, Reed, Richards, Rosa, Schaefer; Associate Professor Sindelar; Assistant Professor Shanmuganayagam

ANIMAL SCIENCES, DOCTORAL MINOR

Any student enrolled in a UW–Madison doctoral program can pursue a doctoral minor in animal sciences. The doctoral minor offers substantial and systematic training in the field of Animal Sciences and can be tailored to a student's specific interests. A doctoral minor in animal sciences is an excellent way to gain training in research methods as well as in substantive topical areas related to animal sciences that can be applied to one's research field and to one's teaching.

REQUIREMENTS

Graduate students who wish to pursue an Option A external minor in animal sciences should consult the graduate coordinator or chair of the Graduate Committee of the department. Courses should be chosen in consultation with the student's departmental advisor and submitted for approval to animal sciences before they are taken. A student may earn a doctoral minor in animal sciences with 9 credits, if all 9 credits are in graduate-level courses pre-approved by animal sciences. Students are expected to achieve a B or better in all courses used for the minor. Directed study courses do not count toward the minor nor do audits or pass/fail courses. The original approved copy of the course list must be submitted to the Graduate School office at the time of the request for the preliminary exam warrant.

PEOPLE

Faculty: Professors Crenshaw (chair), Albrecht, Claus, Khatib, Kirkpatrick, Parrish, Reed, Richards, Rosa, Schaefer; Associate Professor Sindelar; Assistant Professor Shanmuganayagam

ANIMAL SCIENCES, M.S.

The department emphasizes in vivo and in vitro studies that probe relationships at a fundamental mechanistic level as well as addressing current practical issues in animal agriculture. Studies may often employ the use of livestock or laboratory animals, or both, as subjects. Development of an individual course of study is flexible in order to meet the needs of students with varied interests. Graduates find employment in academic teaching and research, in professional veterinary or medical degree programs, in industrial research in the food and feed industries, in laboratory research programs with governmental and international agencies, private corporations, and in industrial or institutional management positions requiring a high level of scientific training.

The department is based in the Animal Sciences Building, which contains facilities for teaching and research, including a Computing and Biometry Laboratory and the Biological and Biomaterials Preparation Imaging

and Characterization Facility. Nearby are the Livestock Laboratory, a state-of-the-art facility, and the Muscle Biology Laboratory. Teaching, research, and project assistantships are available to qualified students. Fellowships, scholarships, and traineeship awards are available from federal training programs, research grants, gifts and trusts, and special program funds.

RESEARCH FOCUS AREAS

Students may choose to focus on the areas of: nutrition, rumen microbiology, aquaculture, reproductive physiology–endocrinology, genetics, animal breeding, muscle biology, meat science, cell biology, animal health, immunity and toxicology, or international agriculture. Considerable opportunity for study exists in joint programs with bacteriology, toxicology, biochemistry, the interdepartmental graduate program in nutritional sciences, genetics, endocrinology, reproductive physiology training program, food science, physiology, agricultural and applied economics, biometry, cellular and molecular biology, pharmaceutical sciences, chemical and biological engineering, bio engineering, comparative biosciences and anatomy.

The area of nutrition involves a joint degree with the Department of Animal Sciences and either the Department of Nutritional Sciences or the Department of Biochemistry. Usually, students work with professors from both departments so fundamental concepts complement practical applications. Ruminant nutrition candidates often minor or have a joint major in the Department of Bacteriology. Nutritional research ranges from field studies to laboratory biochemical studies.

The endocrinology–reproductive physiology area ranges from hormonal studies with livestock, primates, and laboratory animals to biochemical studies at the cellular level including stem cell biology. These studies include mechanism of gene action, physiological genetics, in vitro maturation, fertilization, embryo development, cloning and gene transfer, neuroendocrinology, and the environmental and genetic control of puberty and postpartum anestrus.

The genetics–animal breeding focus includes a variety of areas from immunogenetics and molecular genetics to quantitative and population genetics. The animal breeding program seeks to develop, evaluate, and apply classical, quantitative, biochemical, and physiological genetics toward improving animal breeding techniques. Studies range from theoretical considerations of quantitative genetics to laboratory experimentation on genetic controls of growth and reproduction, gene transfer and cloning to field experimentation on producer herds and flocks. Candidates may minor in several areas including genetics, statistics, physiology, or biochemistry.

Meat science and muscle biology studies probe the relationship of muscle structure, composition, and metabolism to growth, the contractile function, and meat quality. Similar studies related to adipose tissue are included. This fundamental research is applied to muscle efficiency and improved retail meat quality and composition.

The area of cellular biology, animal health, immunity, and toxicology includes basic research which seeks to develop an understanding of cellular/subcellular structure and function, cell regulation, and cell–cell interactions. Cell function, as it relates to mechanisms of immunity and the effects of natural and synthetic compounds, forms the basis for investigations using in vitro and in vivo, whole animal, model systems. Results of fundamental studies are directly applicable and coordinated with ongoing applied research programs in animal and human health.

ADMISSIONS

Students with satisfactory undergraduate training in any biological science including emphasis on basic science courses will have suitable backgrounds for graduate studies in animal science. Typically students admitted to the program have GPAs of 3.2 or higher; candidates with a lower GPA may be considered for admission under special circumstances. Admission decisions are based on academic record, GRE scores, three letters of recommendation, and Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS), if applicable.

Students are admitted to the department if a faculty member agrees to accept the candidate into his or her research group and to provide laboratory/desk space and research support, and upon the approval of the Animal Sciences Graduate Admissions Committee and the Graduate School. The faculty member also makes the decision of whether or not to offer a research assistantship to the candidate. International candidates in the master of science program rarely receive financial support.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Financial assistance may be available to qualified individuals in the form of research assistantships, teaching assistantships, or fellowships. Funding does not come from the department, but from the faculty member agreeing to advise the new student; therefore students join labs directly instead of doing rotations. Funding is awarded on a competitive basis and may be renewed annually pending satisfactory progress. Terms of these appointments are initially defined in the letter of offer to the student.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>). Courses must be agreed upon by student's graduate committee members and approved by department certification committee.

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Contact the program for information on required assessments and examinations.

Language Requirements Language requirements are determined on an individual basis with the major professor and will depend on the area of concentration within the department.

REQUIRED COURSES

Students are admitted to this degree program by their major professor. Following matriculation, the student and major professor plan a graduate curriculum and research program. Within one year of matriculation, the student submits her/his planned curriculum to the departmental graduate program coordinator to obtain departmental approval. The student and major professor discuss membership for the thesis committee. The committee consists of a minimum of three faculty members, with two of these members from the animal sciences department. The thesis committee meets as needed but mainly serves to evaluate the M.S. thesis and relevant knowledge of the student in a final thesis defense exam. The final thesis exam involves an oral defense of the research topic and general knowledge of animal nutrition, endocrinology & reproductive physiology, genetics and animal breeding, or meat science and muscle biology. Consistent with Graduate School policies, the M.S. degree requires a minimum of 30 graduate-level credits, including seminar and research (990) credits.

Seminar Requirement

The Animal Sciences Graduate seminar features outside speakers, UW Faculty, and animal sciences graduate students presenting their research or defending their thesis. This course is held on Tuesday mornings during the fall semester from 11 a.m. to noon. Attendance is required at this seminar series by all animal sciences graduate students. Master's degree students are required to register for the AN SCI 875 Special Topics (Animal Science Seminar) for credit once. Although attendance is required, registering for the seminar for credit is done the semester a student presents.

All degree candidates must complete a satisfactory thesis. Instructions on preparing a master's thesis can be found on the UW Graduate School website, <https://grad.wisc.edu/current-students/masters-guide/>.

At the completion of the degree program, the candidate will take a final examination administered by the mentoring committee. The examination will be oral, and includes questions relating to the candidate's graduate course program. The candidate will also be expected to defend the thesis.

Animal Nutrition Track ¹

Code	Title	Credits
Recommended Courses		
STAT/F&W ECOL/ HORT 571	Statistical Methods for Bioscience I	
STAT/F&W ECOL/ HORT 572	Statistical Methods for Bioscience II	
BIOCHEM 660 or PATH-BIO/ HORT 500	Methods in Biochemistry Molecular Biology Techniques	
AN SCI/ DY SCI 931	Seminar in Animal Nutrition	
AN SCI/ DY SCI 414	Ruminant Nutrition	
AN SCI 415	Application of Monogastric Nutrition Principles	
AN SCI/ NUTR SCI 626	Experimental Diet Design	

NUTR SCI/
BIOCHEM 510 Biochemical Principles of Human
and Animal Nutrition

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

² These degree programs are supported by the Animal Nutrition Emphasis Group in the IGPNS program (<https://nutrisci.wisc.edu/graduate/m-s-ph-d/animal-nutrition-emphasis-group>). Animal sciences faculty members also have the option of offering an M.S. or Ph.D. degree in nutritional sciences as members of the Animal Nutrition Emphasis Group in IGPNS.

Animal Breeding & Genetics Track ¹

Code	Title	Credits
Required Courses		
AN SCI/DY SCI/ GENETICS 951	Seminar in Animal Breeding (every semester)	
GENETICS 466	Principles of Genetics (or equivalent)	
STAT/F&W ECOL/ HORT 571	Statistical Methods for Bioscience I (or equivalent)	

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Endocrinology & Reproductive Physiology Track ¹

Code	Title	Credits
Select one course from each section A, B and C:		
A.		
STAT/F&W ECOL/ HORT 571	Statistical Methods for Bioscience I	
B.		
AN SCI 875	Special Topics (Endocrine Physiology)	
BIOCHEM/ PHMCOL-M/ ZOOLOGY 630	Cellular Signal Transduction Mechanisms	
C.		
BIOCHEM 507 & BIOCHEM 508	General Biochemistry I and General Biochemistry II	
BMOLCHEM 503	Human Biochemistry	
BMOLCHEM 704	Comprehensive Human Biochemistry	
D. Advanced Biochemistry		
E.		
AN SCI/OBS&GYN/ ZOOLOGY 954	Seminar in Endocrinology-Reproductive Physiology	0-1
F. Technical Writing		
G. Advanced Statistics		
H. Advanced Endocrinology		
I. Advanced Reproduction		
J. Advanced Topic Course. Select one of the following:		
Gamete and Embryo Biology		

Reproductive Patterns

Selected Topics in Endocrinology-Reproductive Physiology

Pregnancy, Parturition, and Lactation

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Meat Science & Muscle Biology Track ¹

Code	Title	Credits
Discipline Requirements: Courses to be taken as a graduate student at UW–Madison (maximum 12 credits for M.S. and 15 credits for the Ph.D. per semester).		
Students should choose courses from the following list in consultation with their advisor:		
AN SCI/ FOOD SCI 305	Introduction to Meat Science and Technology ¹	
AN SCI 508	Poultry Products Technology ¹	
AN SCI/ FOOD SCI 515	Commercial Meat Processing ¹	
BIOCHEM 501	Introduction to Biochemistry	
BIOCHEM 507	General Biochemistry I	
BIOCHEM 508	General Biochemistry II	
BIOCHEM/ NUTR SCI 510	Biochemical Principles of Human and Animal Nutrition	
BIOCHEM 550	Topics in Medical Biochemistry	
BIOCHEM 601	Protein and Enzyme Structure and Function	
BIOCHEM/ GENETICS/ MD GENET 620	Eukaryotic Molecular Biology	
BIOCHEM 624	Mechanisms of Enzyme Action	
BIOCHEM/ PHMCOL-M/ ZOOLOGY 630	Cellular Signal Transduction Mechanisms	
BIOCHEM 636	Macromolecular Crystallography and Dynamics	
BIOCHEM 660	Methods in Biochemistry	
BIOCHEM 711	Sequence Analysis	
BMOLCHEM/ BIOCHEM 710	Exploring Biochemical Function of Macromolecules ²	
CHEM 565	Biophysical Chemistry	
CHEM 621	Instrumental Analysis	
FOOD SCI 410	Food Chemistry	
FOOD SCI 412	Food Analysis	
FOOD SCI 432	Principles of Food Preservation	
FOOD SCI 440	Principles of Food Engineering	
FOOD SCI 464	Statistics for Food Industry Quality Control	
FOOD SCI 512	Principles of Food Chemistry-Lab	
FOOD SCI 514	Integrated Food Functionality	
FOOD SCI 532	Integrated Food Manufacturing	
FOOD SCI/ BSE 542	Food Engineering Operations	

FOOD SCI 550	Fermented Foods and Beverages
FOOD SCI 600	Professional Practice in Food Science
FOOD SCI 610	Food Proteins
FOOD SCI/ BSE 642	Food and Pharmaceutical Separations
FOOD SCI/ MICROBIO 650	Advanced Microbiology of Foodborne Pathogens
FOOD SCI/ AN SCI 710	Chemistry of the Food Lipids ²
FOOD SCI 718	Colloid Chemistry of Foods
MICROBIO/ FOOD SCI 324	Food Microbiology Laboratory
MICROBIO/ FOOD SCI 325	Food Microbiology
MICROBIO 526	Physiology of Microorganisms
MICROBIO 527	Advanced Laboratory Techniques in Microbiology
MICROBIO/ M M & I/PATH- BIO 528	Immunology
MICROBIO/ GENETICS 607	Advanced Microbial Genetics
MICROBIO/ FOOD SCI 650	Advanced Microbiology of Foodborne Pathogens
PATH-BIO/ HORT 500	Molecular Biology Techniques
STAT/F&W ECOL/ HORT 571	Statistical Methods for Bioscience I ³
STAT/F&W ECOL/ HORT 572	Statistical Methods for Bioscience II
ZOOLOGY 430	Comparative Anatomy of Vertebrates
ZOOLOGY 470	Introduction to Animal Development
ZOOLOGY 570	Cell Biology
ZOOLOGY 611	Comparative and Evolutionary Physiology
ZOOLOGY 612	Comparative Physiology Laboratory

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

² Only one course from this group can be counted toward the credit load required in this section.

³ Required of Ph.D. candidates.

⁴ Required if an equivalent statistics course was not taken previously.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the

degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<http://www.ansci.wisc.edu/docs/graduate/Animal%20Sciences%20Grad%20Handbook.docx>) is the repository for all of the program's policies and requirements.

Prior Coursework

Graduate Work from Other Institutions

For well-prepared advanced students, the program may accept prior graduate coursework from other institutions toward the minimum graduate degree credit and minimum graduate coursework (50%) requirement. The minimum graduate residence credit requirement can be satisfied only with courses taken as a graduate student at UW–Madison.

UW–Madison Undergraduate

For well-prepared advanced students, the program may decide to accept up to 7 credits numbered 300 or above completed at UW–Madison toward fulfillment of minimum degree and minor credit requirements. This work would not be allowed to count toward the 50% graduate coursework minimum unless taken at the 700 level or above.

UW–Madison University Special

The program may decide to accept up to 15 University Special student credits as fulfillment of the minimum graduate residence, graduate degree, or minor credit requirements on occasion as an exception (on a case-by-case basis).

UW–Madison coursework taken as a University Special student would not be allowed to count toward the 50% graduate coursework minimum unless taken at the 700 level or above.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a yearly basis.

Your committee members advise and evaluate satisfactory progress, administer your final oral examination, evaluate your thesis, and sign your degree warrant. Your advisor chairs the committee. The final warrant request which includes committee membership must be submitted to the Graduate School at least three weeks before the examination date. A committee often accomplishes advising for the students in the early stages of their studies.

Master's thesis committees must have at least 3 members, 2 of whom must be animal sciences graduate faculty or former graduate

faculty up to one year after resignation or retirement and the third member from outside the department.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

RAs, the most common appointment in this department, are hired for 12-months with compensation set on a university-wide basis. The department has a few TAs who assist in instruction, preparing materials, directing labs, grading lab exercises and exams, etc. Special fellowships and scholarships are available for outstanding students. Application instructions may be obtained from the Graduate School website. A graduate student may be employed to assist professors not directly associated with their thesis.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PROGRAM RESOURCES

The Animal Sciences Graduate programs encourage students to develop Individual Development Plans (<https://grad.wisc.edu/pd/idp>) in collaboration with their major advisor to facilitate professional development. Besides the extensive opportunities offered across the campus at large, students in the animal sciences program also benefit from activities and programs provided by the Animal Science Graduate Student Association, a student-led organization for graduate students at UW–Madison who are interested in animal and dairy science.

LEARNING OUTCOMES

1. Articulates, critiques, or elaborates the theories, research methods, and approaches to inquiry or schools of practice in the field of study.
2. Identifies sources and assembles evidence pertaining to questions or challenges in the field of study.
3. Demonstrates understanding of the primary field of study in a historical, social, and global context.
4. Selects and/or utilizes the most appropriate methodologies and practices.
5. Evaluates or synthesizes information pertaining to questions or challenges in the field of study.
6. Communicates clearly in ways appropriate to the field of study.

7. Recognizes and applies principles of ethical and professional conduct.

PEOPLE

Faculty: Professors Crenshaw (chair), Albrecht, Claus, Khatib, Kirkpatrick, Parrish, Reed, Richards, Rosa, Schaefer; Associate Professor Sindelar; Assistant Professor Shanmuganayagam

ANIMAL SCIENCES, PH.D.

The department emphasizes in vivo and in vitro studies that probe relationships at a fundamental mechanistic level as well as addressing current practical issues in animal agriculture. Studies may often employ the use of livestock or laboratory animals, or both, as subjects. Development of an individual course of study is flexible in order to meet the needs of students with varied interests. Graduates find employment in academic teaching and research, in professional veterinary or medical degree programs, in industrial research in the food and feed industries, in laboratory research programs with governmental and international agencies, private corporations, and in industrial or institutional management positions requiring a high level of scientific training.

The department is based in the Animal Sciences Building, which contains facilities for teaching and research, including a Computing and Biometry Laboratory and the Biological and Biomaterials Preparation Imaging and Characterization Facility. Nearby are the Livestock Laboratory, a state-of-the-art facility, and the Muscle Biology Laboratory. Teaching, research, and project assistantships are available to qualified students. Fellowships, scholarships, and traineeship awards are available from federal training programs, research grants, gifts and trusts, and special program funds.

RESEARCH FOCUS AREAS

Students may choose to focus on the areas of: nutrition, rumen microbiology, aquaculture, reproductive physiology–endocrinology, genetics, animal breeding, muscle biology, meat science, cell biology, animal health, immunity and toxicology, or international agriculture. Considerable opportunity for study exists in joint programs with bacteriology, toxicology, biochemistry, the interdepartmental graduate program in nutritional sciences, genetics, endocrinology, reproductive physiology training program, food science, physiology, agricultural and applied economics, biometry, cellular and molecular biology, pharmaceutical sciences, chemical and biological engineering, bio engineering, comparative biosciences and anatomy.

The area of nutrition involves a joint degree with the Department of Animal Sciences and either the Department of Nutritional Sciences or the Department of Biochemistry. Usually, students work with professors from both departments so fundamental concepts complement practical applications. Ruminant nutrition candidates often minor or have a joint major in the Department of Bacteriology. Nutritional research ranges from field studies to laboratory biochemical studies.

The endocrinology–reproductive physiology area ranges from hormonal studies with livestock, primates, and laboratory animals to biochemical studies at the cellular level including stem cell biology. These studies include mechanism of gene action, physiological genetics, in vitro maturation, fertilization, embryo development, cloning and gene transfer,

neuroendocrinology, and the environmental and genetic control of puberty and postpartum anestrus.

The genetics–animal breeding focus includes a variety of areas from immunogenetics and molecular genetics to quantitative and population genetics. The animal breeding program seeks to develop, evaluate, and apply classical, quantitative, biochemical, and physiological genetics toward improving animal breeding techniques. Studies range from theoretical considerations of quantitative genetics to laboratory experimentation on genetic controls of growth and reproduction, gene transfer and cloning to field experimentation on producer herds and flocks. Candidates may minor in several areas including genetics, statistics, physiology, or biochemistry.

Meat science and muscle biology studies probe the relationship of muscle structure, composition, and metabolism to growth, the contractile function, and meat quality. Similar studies related to adipose tissue are included. This fundamental research is applied to muscle efficiency and improved retail meat quality and composition.

The area of cellular biology, animal health, immunity, and toxicology includes basic research which seeks to develop an understanding of cellular/subcellular structure and function, cell regulation, and cell–cell interactions. Cell function, as it relates to mechanisms of immunity and the effects of natural and synthetic compounds, forms the basis for investigations using *in vitro* and *in vivo*, whole animal, model systems. Results of fundamental studies are directly applicable and coordinated with ongoing applied research programs in animal and human health.

ADMISSIONS

Students with satisfactory undergraduate training in any biological science including emphasis on basic science courses will have suitable backgrounds for graduate studies in animal science. Typically students admitted to the program have GPAs of 3.2 or higher; candidates with a lower GPA may be considered for admission under special circumstances. Admission decisions are based on academic record, GRE scores, three letters of recommendation, and Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS), if applicable.

Students are admitted to the department if a faculty member agrees to accept the candidate into his or her research group and to provide laboratory/desk space and research support, and upon the approval of the Animal Sciences Graduate Admissions Committee and the Graduate School. The faculty member also makes the decision of whether or not to offer a research assistantship to the candidate. International candidates in the master of science program rarely receive financial support.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Financial assistance may be available to qualified individuals in the form of research assistantships, teaching assistantships, or fellowships. Funding does not come from the department, but from the faculty member agreeing to advise the new student; therefore students join labs directly instead of doing rotations. Funding is awarded on a competitive basis and may be renewed annually pending satisfactory progress. Terms of these appointments are initially defined in the letter of offer to the student.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum 51 credits

Credit Requirement

Minimum 32 credits

Residence Credit Requirement

Minimum Graduate Coursework Requirement Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements

The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations The original research conducted by the candidate must be summarized in a thesis. A final examination will be given after the completion of the thesis. The thesis must be submitted to the examining committee two weeks before the examination. The candidate is required to present an exit seminar on their dissertation research and to subsequently defend the thesis orally. The thesis must be acceptable from both scientific and literary standpoints. The mentoring committee administers the thesis defense. Deposit of the doctoral dissertation in the Graduate School is required.

Language Requirements Language requirements are determined on an individual basis with the major professor and will depend on the area of concentration within the department.

Doctoral Minor/Breadth Requirements The animal sciences department requires Ph.D. students to complete a minor.

REQUIRED COURSES

All Animal Sciences Ph.D. students must meet with their research committee during their first year to complete their Certification Form (<http://www.ansci.wisc.edu/cgstudentt.html>). Once the committee has approved the certification paperwork the student must turn in the signed copy to the Graduate Coordinator so that it may be reviewed and approved by the graduate chair. The certification paperwork must be approved before a student can request their prelim warrant. Students should meet with their committee once per year. Any changes to the certification paperwork must be communicated to the graduate coordinator and approved by the graduate chair.

Students graduating with a Ph.D. in animal sciences are expected to have core education in the following areas:

- Physiology/endocrinology/reproduction
- Biochemistry/nutrition
- Genetics/breeding
- Food science/meat science/ food safety/microbiology

- STAT/F&W ECOL/HORT 571 Statistical Methods for Bioscience I, STAT/F&W ECOL/HORT 572 Statistical Methods for Bioscience II, or equivalent
- A course in ethics
- Teaching practicum, with Delta or MIU Workshop training.

Courses taken prior to entering the animal sciences program will be considered as a substitute.

Seminar Requirement

The Animal Sciences Graduate seminar features outside speakers, UW faculty, and animal sciences graduate students presenting their research or defending their thesis. This course is held on Tuesday mornings during the fall semester from 11 a.m. to noon. Attendance is required at this seminar series by all animal sciences graduate students. Ph.D. students are required to register for the AN SCI 875 Special Topics (Animal Science Seminar) for credit twice. Although attendance is required, registering for the seminar for credit is done the semester a student presents.

Teaching Requirement

All students in the animal sciences Ph.D. program are required to complete a Teaching Practicum, usually AN SCI 799 Practicum in Animal Sciences Teaching. Each student is expected to work with the faculty advisor to identify an opportunity within the department for the student to engage in teaching. This requirement is broadly defined, and could include assisting an animal sciences faculty member with classroom teaching or TA'ing in a course outside of the animal sciences department.

Enrollment Requirement

The department requires all funded students to be enrolled full time. For M.S. students this means at least 8 credits in the fall and spring term and at least 2 credits in the summer term. Students funded by another department should check with the payroll and benefits coordinator of that department to learn their requirements for enrollment. Unfunded students should follow the Graduate School's rules on enrollment (<https://grad.wisc.edu/documents/enrollment-requirements>).

The remainder of the course requirements for the Ph.D. in Animal Sciences will be selected to meet the student's specific needs and to ensure breadth and depth as determined through consultation with his/her major professor and members of their committee.

Animal Nutrition Track ^{1,2}

Code Title Credits

Recommended courses for the Ph.D. degree:

AN SCI/ DY SCI 824 & AN SCI/ DY SCI 825	Ruminant Nutritional Physiology I and Ruminant Nutritional Physiology II	
AN SCI/ DY SCI 931	Seminar in Animal Nutrition	
NUTR SCI/ BIOCHEM 619	Advanced Nutrition: Intermediary Metabolism of Macronutrients	
NUTR SCI/ M&ENVTOX 623	Advanced Nutrition: Minerals	
NUTR SCI 627	Advanced Nutrition: Vitamins	
COMP BIO 506	Veterinary Physiology B	
COMP BIO 551	Veterinary Physiology A	

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do

not appear in the Graduate School admissions application, and they will not appear on the transcript.

- ² These degree programs are supported by the Animal Nutrition Emphasis Group in the IGPNS program (<https://nutrisci.wisc.edu/graduate/m-s-ph-d/animal-nutrition-emphasis-group>). Animal sciences faculty members also have the option of offering an M.S. or Ph.D. degree in nutritional sciences as members of the Animal Nutrition Emphasis Group in IGPNS.

Animal Breeding & Genetics Track ¹

Code	Title	Credits
AN SCI/DY SCI/ GENETICS 951	Seminar in Animal Breeding	
GENETICS 466	Principles of Genetics	
STAT/F&W ECOL/ HORT 571	Statistical Methods for Bioscience I and Statistical Methods for Bioscience II	
& STAT/ F&W ECOL/ HORT 572		
<i>PhD students with a quantitative bent are also required to complete:</i>		
AN SCI/ GENETICS 610	Quantitative Genetics	
AN SCI 875	Special Topics (Linear Models for Quantitative Genetics & Molecular Genetics for Animal Breeding)	

Endocrinology & Reproductive Physiology Track ¹

Code	Title	Credits
Select one course from each section A, B and C:		
A.		
STAT/F&W ECOL/ HORT 571	Statistical Methods for Bioscience I	
B.		
AN SCI 875	Special Topics (Endocrine Physiology)	
BIOCHEM/ PHMCOL-M/ ZOOLOGY 630	Cellular Signal Transduction Mechanisms	
C.		
BIOCHEM 507 & BIOCHEM 508	General Biochemistry I and General Biochemistry II	
BMOLCHEM 503	Human Biochemistry	
BMOLCHEM 704	Comprehensive Human Biochemistry	
D. Advanced Biochemistry		
E.		
AN SCI/ OBS&GYN/ ZOOLOGY 954	Seminar in Endocrinology- Reproductive Physiology	
F. Technical Writing		
G. Advanced Statistics		
H. Advanced Endocrinology		
I. Advanced Reproduction		
J. Advanced Topic Course. Select one of the following:		
Gamete and Embryo Biology		
Reproductive Patterns		

Selected Topics in Endocrinology-Reproductive
Physiology

Pregnancy, Parturition, and Lactation

- ¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Meat Science & Muscle Biology Track ¹

Code	Title	Credits
Students should choose courses from the following list in consultation with their advisor:		
AN SCI/ FOOD SCI 305	Introduction to Meat Science and Technology ²	
AN SCI 508	Poultry Products Technology ²	
AN SCI/ FOOD SCI 515	Commercial Meat Processing ²	
AN SCI/ FOOD SCI 710	Chemistry of the Food Lipids	
BIOCHEM 501	Introduction to Biochemistry	
BIOCHEM 507	General Biochemistry I	
BIOCHEM 508	General Biochemistry II	
BIOCHEM/ NUTR SCI 510	Biochemical Principles of Human and Animal Nutrition	
BIOCHEM 550	Topics in Medical Biochemistry	
BIOCHEM 601	Protein and Enzyme Structure and Function	
BIOCHEM/ GENETICS/ MD GENET 620	Eukaryotic Molecular Biology	
BIOCHEM 624	Mechanisms of Enzyme Action	
BIOCHEM/ PHMCOL-M/ ZOOLOGY 630	Cellular Signal Transduction Mechanisms	
BIOCHEM 636	Macromolecular Crystallography and Dynamics	
BIOCHEM 660	Methods in Biochemistry	
BIOCHEM 711	Sequence Analysis	
BMOLCHEM/ BIOCHEM 710	Exploring Biochemical Function of Macromolecules ³	
CHEM 565	Biophysical Chemistry	
CHEM 621	Instrumental Analysis	
FOOD SCI 410	Food Chemistry	
FOOD SCI 412	Food Analysis	
FOOD SCI 432	Principles of Food Preservation	
FOOD SCI 440	Principles of Food Engineering	
FOOD SCI 464	Statistics for Food Industry Quality Control	
FOOD SCI 512	Principles of Food Chemistry-Lab	
FOOD SCI 514	Integrated Food Functionality	
FOOD SCI 532	Integrated Food Manufacturing	
FOOD SCI/ BSE 542	Food Engineering Operations	
FOOD SCI 550	Fermented Foods and Beverages	

FOOD SCI 600	Professional Practice in Food Science
FOOD SCI 610	Food Proteins
FOOD SCI/ BSE 642	Food and Pharmaceutical Separations
FOOD SCI/ MICROBIO 650	Advanced Microbiology of Foodborne Pathogens
FOOD SCI 718	Colloid Chemistry of Foods
MICROBIO/ FOOD SCI 324	Food Microbiology Laboratory
MICROBIO/ FOOD SCI 325	Food Microbiology
MICROBIO 526	Physiology of Microorganisms
MICROBIO 527	Advanced Laboratory Techniques in Microbiology
MICROBIO/ M M & I/PATH- BIO 528	Immunology
MICROBIO/ GENETICS 607	Advanced Microbial Genetics
MICROBIO/ FOOD SCI 650	Advanced Microbiology of Foodborne Pathogens
PATH-BIO/ HORT 500	Molecular Biology Techniques
STAT/F&W ECOL/ HORT 571	Statistical Methods for Bioscience I ⁴
STAT/F&W ECOL/ HORT 572	Statistical Methods for Bioscience II
ZOOLOGY 430	Comparative Anatomy of Vertebrates
ZOOLOGY 470	Introduction to Animal Development
ZOOLOGY 570	Cell Biology
ZOOLOGY 611	Comparative and Evolutionary Physiology
ZOOLOGY 612	Comparative Physiology Laboratory

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

² Only one course from this group can be counted towards the credit load required in this section.

³ Required of Ph.D. candidates.

⁴ Required if an equivalent statistics course was not taken previously.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<http://www.ansci.wisc.edu/docs/graduate/Animal%20Sciences%20Grad%20Handbook.docx>) is the repository for all of the program's policies and requirements.

Prior Coursework

Graduate Work from Other Institutions

For well-prepared advanced students, the program may accept prior graduate coursework from other institutions toward the minimum graduate degree credit and minimum graduate coursework (50%) requirement. The minimum graduate residence credit requirement can be satisfied only with courses taken as a graduate student at UW–Madison.

UW–Madison Undergraduate

For well-prepared advanced students, the program may decide to accept up to 7 credits numbered 300 or above completed at UW–Madison toward fulfillment of minimum degree and minor credit requirements. This work would not be allowed to count toward the 50% graduate coursework minimum unless taken at the 700 level or above.

UW–Madison University Special

The program may decide to accept up to 15 University Special student credits as fulfillment of the minimum graduate residence, graduate degree, or minor credit requirements on occasion as an exception (on a case-by-case basis).

UW–Madison coursework taken as a University Special student would not be allowed to count toward the 50% graduate coursework minimum unless taken at the 700 level or above.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a yearly basis.

Your committee members advise and evaluate satisfactory progress, administer your final oral examination, evaluate your thesis, and sign your degree warrant. Your advisor chairs the committee. Ph.D. thesis committees must have at least five members representing more than one graduate program. Your committee must include three faculty members from the animal sciences department, and no more than four, and at least one faculty member outside the department at arm's length to the project.

Ph.D. thesis committees must have at least five members representing more than one graduate program. Your committee must include three faculty members from the animal sciences

department, and no more than four, and at least one faculty member outside the department at arm's length to the project.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

OTHER

RAs, the most common appointment in this department, are hired for 12 months with compensation set on a university-wide basis. The department has a few TAs who assist in instruction, preparing materials, directing labs, grading lab exercises and exams, etc. Special fellowships and scholarships are available for outstanding students. Application instructions may be obtained from the Graduate School website. A graduate student may be employed to assist professors not directly associated with their thesis.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PROGRAM RESOURCES

The Animal Sciences Graduate programs encourage students to develop Individual Development Plans (<https://grad.wisc.edu/pd/idp>) in collaboration with their major advisor to facilitate professional development. Besides the extensive opportunities offered across the campus at large, students in the animal sciences program also benefit from activities and programs provided by the Animal Science Graduate Student Association, a student-led organization for graduate students at UW-Madison who are interested in animal and dairy science.

LEARNING OUTCOMES

1. Articulates research problems, potentials, and limits with respect to theory, knowledge, or practice within the field of study.
2. Formulates ideas, concepts, designs, and/or techniques beyond the current boundaries of knowledge within the field of study.
3. Creates research, scholarship, or performance that makes a substantive contribution.
4. Demonstrates breadth within their learning experiences.

5. Advances contributions of the field of study to society.

6. Communicates complex ideas in a clear and understandable manner.

7. Fosters ethical and professional conduct.

PEOPLE

Faculty: Professors Crenshaw (chair), Albrecht, Claus, Khatib, Kirkpatrick, Parrish, Reed, Richards, Rosa, Schaefer; Associate Professor Sindelar; Assistant Professor Shanmuganayagam

ANTHROPOLOGY

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Anthropology, Doctoral Minor (p. 83)
- Anthropology, M.A. (p. 83)
- Anthropology, M.S. (p. 86)
- Anthropology, Ph.D. (p. 89)

PEOPLE

Faculty: See Anthropology (<http://anthropology.wisc.edu/people/#faculty>).

ANTHROPOLOGY, DOCTORAL MINOR

REQUIREMENTS

Graduate students in other fields who desire to elect anthropology as a minor subject should contact the chair of the department. As a rule, prior preparation must equal 12 credits in social sciences, of which two should be in anthropology (<http://guide.wisc.edu/courses/anthro>) unless the area of concentration is to be a non-cultural field. Four courses must be taken, with the program of courses arranged to provide either

1. a general coverage of the field, or
2. concentration in biological anthropology, cultural anthropology, or archaeology.

Successful completion of the course program will satisfy the minor requirement.

PEOPLE

Faculty: See Anthropology (<http://anthropology.wisc.edu/people/#faculty>).

ANTHROPOLOGY, M.A.

The primary focus of the anthropology graduate program is the doctoral degree. A master's degree is awarded in the process of pursuing the

Ph.D., but students are not admitted for the sole purpose of obtaining a master's degree.

At the master's level, it is expected that candidates will begin to gain professional competence in a specialized field and will have the opportunity to explore a wide spectrum of interests within that field.

Programs for the master's degree in anthropology are intended to build professional competence in the field of concentration. Thorough undergraduate preparation is assumed. Basic training in archaeology, biological anthropology, and sociocultural anthropology, taken as an undergraduate major in anthropology, is recommended. Specific requirements vary for each concentration. Students are encouraged to consult Graduate Studies in Anthropology (<https://www.anthropology.wisc.edu/graduate-study/anthropology-masters-phd>) for details on requirements for each concentration.

Concentrations within the major are available in archaeology, social and cultural anthropology, biological anthropology, or an intersectional degree track (see description below).

All programs assume that candidates have had general undergraduate training in the discipline equivalent to that required of an undergraduate major at UW-Madison. See Anthropology (<https://www.anthropology.wisc.edu>).

INTERSECTIONAL DEGREE TRACK

Occasionally students have special interests that can be pursued only through a combined program involving two or more of the sub disciplines within the program. Examples might include paleoanthropology, ethno archaeology, or biocultural anthropology. The department thus offers an intersectional degree track as an option for these special cases. Interested students should write a carefully prepared statement of intent at the time of application to graduate school. This area of study may take longer to complete, and it is strongly suggested that students who are interested in an intersectional program begin in one of the three major sections prior to making this commitment. Admission to the intersectional program requires prior approval by faculty in each section, and students should contact appropriate faculty before writing their statement.

This master's program is offered for work leading to the Ph.D. Students may not apply directly for the master's, and should instead see the admissions information for the Ph.D (<https://www.anthropology.wisc.edu/graduate-study/admissions>).

ADMISSIONS

This master's program is offered for work leading to the Ph.D. Students may not apply directly for the master's, and should instead see the admissions information for the Ph.D (p. 89).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement Degree coursework must be completed in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement A GPA of 3.5. No less than 3.0 during the first year; must have a 3.5 thereafter.

Other Grade Requirements Candidates may not have a GPA lower than 3.0 during the first year and must maintain a 3.5 GPA every year thereafter. Candidates may not carry more than 4 credits of Incomplete at any one time; credits of Incomplete over this limit are counted as grades of F for purposes of the GPA until removed.

Assessments and Examinations Successful completion of a comprehensive master's exam and or a Ph.D. qualifying examination is required.

Language Requirements No language requirements.

REQUIRED COURSES

Students choose from one of four concentrations/tracks (also referred to as "sections") in the department. Students in the Cultural concentration will earn a master of arts. Students in the Archaeology, Biological, or Intersectional concentrations will work their advisor and a department committee to determine if the coursework they take meets the requirements for a master of arts or a master of science.

Archaeology Concentration Track ¹

Student must complete a total of 30 credits of graduate course work, including three seminars (ANTHRO 942 Seminar-Archaeological Problems) in archaeology. Substitutions for the required seminars in archaeology are not normally allowed. (Incoming M.A. students must take at least two seminars as a part of the Ph.D. requirements, and these courses may be taken before or after the qualifying examination.)

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Biological Concentration Track ¹

Student must complete a total of 30 credits of graduate course work. The following courses are strongly recommended in preparation for the general section of the qualifying examination:

Code	Title	Credits
ANTHRO 303	Human Skeletal Anatomy	4
ANTHRO 601	Proseminar in Biological Anthropology	3
ANTHRO 603	Seminar in Evolutionary Theory	3
GENETICS 466	Principles of Genetics	3

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Cultural Concentration Track ¹

Minimum 30 credits of graduate course work, including ANTHRO 860 and ANTHRO 900, and one additional 900-level seminar (not to include ANTHRO 909 if continuing in Ph.D. program).

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Intersectional Concentration Track ¹

There are no specific courses required; students choose courses in consultation with their advisor.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do

not appear in the Graduate School admissions application, and they will not appear on the transcript.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 9 credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

With program approval students are allowed to count no more than 9 credits of coursework numbered 300 or above taken as a UW–Madison Special student. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

Progress criteria may be waived in special circumstances which must be stated in writing and approved by the appropriate section and signed by the department chair. Candidates not making satisfactory progress will be dropped from the program.

ADVISOR / COMMITTEE

Every graduate student will be assigned an advisor and a co-advisor. To ensure they are making satisfactory progress toward a degree, the Graduate School expects that students meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, from the major department responsible for providing advice regarding graduate studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Ph.D. qualifying examinations must be taken no later than the fourth semester and must be passed no later than the **sixth semester**.

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence.

OTHER

We have a limited amount of graduate student support through teaching assistantships and fellowships. These are awarded competitively, and are only awarded to those applicants who have all their materials in by the December 1 deadline.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Articulates, critiques, or elaborates the theories, research methods, and approaches to inquiry or schools of practice in either biological, archaeological, or cultural anthropology.
2. Identifies relevant data and assembles evidence pertaining to questions or challenges in one of the three subfields of anthropology taught in this department.
3. Demonstrates understanding of the primary field of study in a historical, social, or global/transnational contexts as revealed in the qualifying exam.
4. Selects and/or utilizes the most appropriate methodologies and practices in the sub-discipline.
5. Evaluates or synthesizes information pertaining to questions or challenges in one of the three subfields of anthropology taught in this department.
6. Communicates clearly in ways appropriate to the field of study.

7. Follow ethical principles of the discipline; including respect and sensitivity to host cultures and communities, inclusiveness and diversity, civility and collegiality, and zero tolerance for sexual harassment.

PEOPLE

Faculty: See Anthropology (<http://anthropology.wisc.edu/people/#faculty>).

ANTHROPOLOGY, M.S.

The primary focus of the anthropology graduate program is the doctoral degree. A master's degree is awarded in the process of pursuing the Ph.D., but students are not admitted for the sole purpose of obtaining a master's degree.

At the master's level, it is expected that candidates will begin to gain professional competence in a specialized field and will have the opportunity to explore a wide spectrum of interests within that field.

Programs for the master's degree in anthropology are intended to build professional competence in the field of concentration. Thorough undergraduate preparation is assumed. Basic training in archaeology, biological anthropology, and sociocultural anthropology, taken as an undergraduate major in anthropology, is recommended. Specific requirements vary for each concentration. Students are encouraged to consult Graduate Studies in Anthropology (<https://www.anthropology.wisc.edu/graduate-study/anthropology-masters-phd>) for details on requirements for each concentration.

Concentrations within the major are available in archaeology, social and cultural anthropology, biological anthropology, or an intersectional degree track (see description below).

All programs assume that candidates have had general undergraduate training in the discipline equivalent to that required of an undergraduate major at UW–Madison. See Anthropology (<https://www.anthropology.wisc.edu>).

INTERSECTIONAL DEGREE TRACK

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This master's program is offered for work leading to the Ph.D. Students may not apply directly for the master's, and should instead see the admissions information for the Ph.D (<https://www.anthropology.wisc.edu/graduate-study/admissions>)

ADMISSIONS

This master's program is offered for work leading to the Ph.D. Students may not apply directly for the master's, and should instead see the admissions information for the Ph.D (p. 89).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement	16 credits
Minimum Graduate Coursework Requirement	Degree coursework must be completed in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (https://registrar.wisc.edu/course-guide/).
Overall Graduate GPA Requirement	A GPA of 3.5. No less than 3.0 during the first year; must have a 3.5 thereafter.
Other Grade Requirements	Candidates may not have a GPA lower than 3.0 during the first year and must maintain a 3.5 GPA every year thereafter. Candidates may not carry more than 4 credits of Incomplete at any one time; credits of Incomplete over this limit are counted as grades of F for purposes of the GPA until removed.
Assessments and Examinations	Successful completion of a comprehensive master's exam or a Ph.D. qualifying examination is required.
Language Requirements	No language requirements.

REQUIRED COURSES

Students choose from one of four concentrations/tracks (also referred to as "sections") in the department. Students in the Cultural concentration will earn a master of arts. Students in the Archaeology, Biological, or Intersectional concentrations will work their advisor and a department committee to determine if the coursework they take meets the requirements for a master of arts or a master of science. If students are interested in the Cultural concentration, they should see information about the master of arts (p. 84).

Archaeology Concentration Track ¹

Student must complete a total of 30 credits of graduate course work, including three seminars (ANTHRO 942 Seminar-Archaeological Problems) in archaeology. Substitutions for the required seminars in archaeology are not normally allowed. (Incoming M.A. students must take at least two seminars as a part of the Ph.D. requirements, and these classes may be taken before or after the qualifying examination.)

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Biological Concentration Track ¹

Student must complete a total of 30 credits of graduate course work. The following courses are strongly recommended in preparation for the general section of the qualifying examination:

Code	Title	Credits
ANTHRO 303	Human Skeletal Anatomy	4
ANTHRO 601	Proseminar in Biological Anthropology	3
ANTHRO 603	Seminar in Evolutionary Theory	3
GENETICS 466	Principles of Genetics	3

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do

not appear in the Graduate School admissions application, and they will not appear on the transcript.

Intersectional Concentration Track ¹

There are no specific courses required; students choose courses in consultation with their advisor.

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POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

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PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 9 credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

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PROBATION

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2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).

3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

Progress criteria may be waived in special circumstances which must be stated in writing and approved by the appropriate section and signed by the department chair. Candidates not making satisfactory progress will be dropped from the program.

ADVISOR / COMMITTEE

Every graduate student will be assigned an advisor and a co-advisor. To ensure they are making satisfactory progress toward a degree, the Graduate School expects that students meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, from the major department responsible for providing advice regarding graduate studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Ph.D. qualifying examinations must be taken no later than the fourth semester and must be passed no later than the **sixth semester**.

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence.

OTHER

We have a limited amount of graduate student support through teaching assistantships and fellowships. These are awarded competitively, and are only awarded to those applicants who have all their materials in by the December 1 deadline.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Articulates, critiques, or elaborates the theories, research methods, and approaches to inquiry or schools of practice in either biological, archaeological, or cultural anthropology.
2. Identifies relevant data and assembles evidence pertaining to questions or challenges in one of the three subfields of anthropology taught in this department.
3. Demonstrates understanding of the primary field of study in a historical, social, or global/transnational contexts as revealed in the qualifying exam.

4. Selects and/or utilizes the most appropriate methodologies and practices in the sub-discipline.
5. Evaluates or synthesizes information pertaining to questions or challenges in one of the three subfields of anthropology taught in this department.
6. Communicates clearly in ways appropriate to the field of study.
7. Follow ethical principles of the discipline; including respect and sensitivity to host cultures and communities, inclusiveness and diversity, civility and collegiality, and zero tolerance for sexual harassment.

PEOPLE

Faculty: See Anthropology (<http://anthropology.wisc.edu/people/#faculty>).

ANTHROPOLOGY, PH.D.

The Ph.D. program assumes previous broad anthropological training in the undergraduate major and competence in a special field at the master's level (see Graduate Studies in Anthropology (http://www.anthropology.wisc.edu/study_grad.php)). Ph.D. programs are flexible in content and are constructed individually within the field of specialization by the candidate, in consultation with the appropriate faculty.

Students working toward the Ph.D. degree with a major in anthropology who prefer to pursue a program leading to a specialization in, for example, linguistic anthropology, may elect to take a joint major. The requirements for such candidates will be determined by the certification committee, which includes members of the participating departments, and must be approved by the Graduate School.

Within the doctoral program, students are expected to seek additional training in areas relating to the field of concentration; in most cases, such related subjects may be taken as the required minor program. The archaeologist, for example, should elect course work in surveying, geology, cartography, zoology, history, and so on, depending on special interests. The biological anthropologist is expected to take work in comparative anatomy, human anatomy, genetics, and other biological sciences. The cultural or social anthropologist are encouraged to take further work in area studies, geography, history, history of science, linguistics, political science, psychology, sociology, and related fields.

The university and vicinity provide many opportunities and facilities for training and research including specialized area and language programs, accessible American Indian reservations, significant archaeological sites, and important archaeological collections. Anthropological fieldwork is conducted in various parts of the world, and there is normally an archaeological field school every second summer. The department has major laboratories for biological anthropology and archaeology, and collaborates with the Center for Climatic Research. The archaeology laboratories maintain comparative collections; microscopes; a thin-section lab; a lab of archaeological chemistry; computerized drafting equipment; and modern drafting, computing, and analytical equipment for research and teaching. Facilities for training and research in biological anthropology include well-equipped laboratories for forensic anthropology, human and other primate osteology anatomy, plant

chemistry, stable isotope analysis, and bone histomorphometry, in addition to two large teaching laboratories.

Concentrations within the major are available in archaeology, social and cultural anthropology, biological anthropology, or an intersectional degree track (see description below).

All programs assume that candidates have had general undergraduate training in the discipline equivalent to that required of an undergraduate major at UW–Madison. See Anthropology (<http://guide.wisc.edu/undergraduate/letters-science/anthropology/anthropology-ba/#requirementstext>).

INTERSECTIONAL DEGREE TRACK

Occasionally students have special interests that can be pursued only through a combined program involving two or more of the subdisciplines within the program. Examples might include paleoanthropology, ethnoarchaeology, or biocultural anthropology. The department thus offers an intersectional degree track as an option for these special cases. Interested students should write a carefully prepared statement of intent at the time of application to graduate school. This area of study may take longer to complete, and it is strongly suggested that students who are interested in an intersectional program begin in one of the three major sections prior to making this commitment. Admission to the intersectional program requires prior approval by faculty in each section, and students should contact appropriate faculty before writing their statement.

ADMISSIONS

The Graduate School sets minimum requirements for admissions (<https://grad.wisc.edu/admissions/requirements>). Academic program admission requirements are often more rigorous than those set by the Graduate School. Please check the program's website (<http://www.anthropology.wisc.edu/graduate-study/applying-to-our-graduate-program>) for details.

GRADUATE STUDY

Students interested in pursuing degrees in anthropology at the University of Wisconsin–Madison will find themselves members of a vibrant intellectual community. The university is an important crossroads where a diversity of debate and intellectual exchange can be found. The department is actively involved in this diverse community and regularly invites renowned scholars from all over the world to give talks and hold seminars. When a new student is admitted to the department, that student also becomes a colleague to a diverse group of scholars.

The department recognizes that the methods, perspectives, and theoretical orientation originating in anthropology have now invigorated many other disciplines. This blurring of the borders between disciplines has created a cross-fertilization that is unprecedented in the history of Western academics. The department encourages students to take part in this process, as it relates both to intradisciplinary relationships within the sections and to interdisciplinary relationships between departments.

The primary focus of the Department of Anthropology is on the doctoral degree. A master's degree is awarded in the process of pursuing the Ph.D., but students are not admitted for the sole purpose of obtaining a master's degree.

The Department of Anthropology offers prospective graduate students the opportunity to pursue study within one of three major subfields of contemporary anthropology: archaeology, biological anthropology, and cultural anthropology plus an intersectional degree (see below for more information on these programs).

ADMISSIONS

The anthropology department offers three major fields of study in contemporary anthropology: archaeology, biological anthropology, and cultural anthropology, or within the intersectional degree program.

The primary focus of the Department of Anthropology is the doctoral degree. A master's degree is awarded in the process of pursuing the Ph.D.; students are not admitted for the sole purpose of obtaining a master's degree.

Contact Anthropology Graduate Advisor Professor Travis Pickering at 608-262-5818 or tpickering@wisc.edu for information on your specific interests in anthropology. Connect with current anthropology graduate students through the UW student organization AnthroCircle (<https://anthrocircle.wordpress.com>) to learn about their experience in our program.

APPLICATION FOR GRADUATE STUDY IN ANTHROPOLOGY

The application deadline is **December 1** for the following fall semester.

All documents and test scores must be complete and submitted by December 1 for your application to be deemed complete for review and consideration. Please keep in mind that **December 1** is the deadline for all anthropology admissions. Although the Graduate School will process your application, the department has a **December 1** deadline, and may not process your application without supporting documentation. Please contact the graduate coordinator prior to sending your application if after **December 1**.

WE DO NOT ACCEPT APPLICATIONS FOR SPRING OR SUMMER ADMISSIONS

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

A limited number of teaching, research, and project assistantships are available annually, with occasional special research work for qualified individuals in both laboratory and field situations. Students who are planning to study a language taught at the UW–Madison are encouraged

to contact the relevant Area Studies Program to explore the possibilities for a (FLAS) Foreign Language Area Studies Fellowship.

More information can be found here (<https://www.anthropology.wisc.edu/graduate-study/funding>).

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 51 credits

Minimum Residence Credit Requirement 32 credits

Minimum Graduate Coursework Requirement Degree coursework must be completed in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle>).

Overall Graduate GPA Requirement A GPA of 3.50. No less than 3.0 during the first year; must have a 3.50 thereafter.

Other Grade Requirements Candidates may not have a GPA lower than 3.0 during the first year and must maintain a 3.5 GPA every year thereafter. Candidates may not carry more than 4 credits of Incomplete at any one time; credits of Incomplete over this limit are counted as grades of F for purposes of the GPA until removed.

Assessments and Examinations Ph.D. qualifying examinations must be taken no later than the fourth semester and must be passed no later than the sixth semester. Students must take preliminary examinations no later than the third semester after passage of the qualifying examinations, and pass no later than the fifth semester after qualifying examinations.

Language Requirements Language requirements are determined on an individual basis with the major professor and will depend on the area concentration within the department.

Doctoral Minor/Breadth Requirements All doctoral students are required to complete a minor.

REQUIRED COURSES

Students choose from one of four concentrations/tracks (also referred to as "sections") in the department. Students earn an M.A. (p. 84) or M.S. (p. 87) on the way to the Ph.D. and should refer to the requirements on those pages for information about specific courses required.

All concentrations (archaeology, biological, cultural, intersectional) require one 300-level or above course in one of the other concentrations.

Archaeology Concentration Track ¹

21 additional credits to the master's degree, including two seminars in anthropology/archaeology.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Biological Concentration Track ¹

21 additional credits to the master's degree, including coursework relevant to field of specialization.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Cultural Concentration Track ¹

21 additional credits to the master's degree, including at least one graduate seminar above the 900 level in addition to ANTHRO 860 and ANTHRO 900 in the Department of Anthropology. In addition, students must also take ANTHRO 909, which may be taken as a directed study when it is not offered as a course by the department, and it affects a student's progress.. Substitutions for 900 level courses can only be made by petition to the Cultural Section.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Intersectional Concentration Track ¹

There are no specific courses required; students choose courses in consultation with their advisor.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 9 credits of graduate coursework from other institutions. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW-Madison Undergraduate

No credits from a UW-Madison undergraduate degree are allowed to count toward the degree.

UW-Madison University Special

With program approval students are allowed to count no more than 9 credits of coursework numbered 300 or above taken as a UW-Madison Special student. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

Progress criteria may be waived in special circumstances which must be stated in writing and approved by the appropriate section and signed by the department chair. Candidates not making satisfactory progress will be dropped from the program.

ADVISOR / COMMITTEE

Every graduate student will be assigned an advisor and a co-advisor. To ensure they are making satisfactory progress toward a degree, the Graduate School expects that students meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member from the major department responsible for providing advice regarding graduate studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Approval of a dissertation topic no later than the semester following passage of preliminary examinations is required.

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence.

OTHER

We have a limited amount of graduate student support through teaching assistantships and fellowships. These are awarded competitively, and are only awarded to those applicants who have all their materials in by the December 1 deadline.

research grants; and teach effectively as assistants to professors in the department.

4. Communicate complex ideas in a clear and understandable manner.

5. Follow ethical principles of the discipline; including respect and sensitivity to host cultures and communities, inclusiveness and diversity, civility and collegiality, and zero tolerance for sexual harassment.

PEOPLE

Faculty: See Anthropology (<http://anthropology.wisc.edu/people/#faculty>).

ART

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Art Education, M.A. (p. 92)
- Art, Doctoral Minor (p. 95)
- Art, M.A. (p. 95)
- Art, MFA (p. 101)

PEOPLE

Art Faculty: Professors Rosenberg (chair), Buisch, Clark, Connors, Damer, Escalante, Georgiades, Gralnick, Hitchcock, Loeser, Miller, Mladenoff, Scheer, Simpson, Solien; Associate Professors Abdu'allah, Hilyard, Jones, Stonehouse; Assistant Professors Arthur, Bakkom, Barry, Clancy, Fitzsimons, Grimm, Lee, Mitchell, Smith

Art Education Faculty: Professors Loeser (chair), Buisch, Clark, Damer, Escalante, Feren, Georgiades, Gralnick, Hitchcock, Marschalek, Myers, Nelson, Scheer, Solien; Associate Professors Connors, Cridler, Hilyard, Marche, Miller, Mladenoff, Rosenberg, Sacaridiz, Simpson; Assistant Professors Bakkom, Fitzsimons, Hixson, Jones, McClure, Mitchell, Simpson, Smith, Stonehouse

TEST

ART EDUCATION, M.A.

Admissions to the Art Education M.A. have been suspended as of spring 2017. If you have any questions, please contact the department (artfrontdesk@education.wisc.edu).

ADMISSIONS

Admissions to the Art Education M.A. have been suspended as of spring 2017. If you have any questions, please contact the department (artfrontdesk@education.wisc.edu).

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Articulates research problems, potentials, and limits with respect to theory, knowledge, or practice within in either biological, archaeological or cultural anthropology in seminar papers and preliminary exam.
2. Formulates ideas, concepts, designs, and/or techniques beyond the current boundaries of knowledge in one of the three subfields above in the preliminary exam and dissertation.
3. Carry out original anthropological research and produce publishable work in the field including the writing of a dissertation; have a command of one or more foreign languages suited to their research when appropriate; actively compete for major intra- and extramural

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Graduate Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations n/a

Language Requirements n/a

REQUIRED COURSES

This degree has been suspended and the following curriculum may be out of date.

Code	Title	Credits
ART ED 900	Contemporary Practices in Art Education	3
ART ED/CURRIC 951	Seminar in Art Education	3
24 credits approved by the advisor from among studio art, art history, and other courses related to the student's program.		24
Total Credits		30

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program if it is unsuspended in the future.

PRIOR COURSEWORK

Graduate Work from Other Institutions

For well-prepared advanced students, the program may accept prior graduate coursework from other institutions towards the minimum graduate degree credit and minimum graduate coursework (50%) requirement. The minimum graduate residence credit requirement can be satisfied only with courses taken as a graduate student at UW-Madison.

UW–Madison Undergraduate

For well-prepared advanced students, the program may decide to accept up to 7 credits numbered 300 or above completed at UW–Madison towards fulfillment of minimum degree and minor credit requirements. This work would not be allowed to count toward the 50% graduate coursework minimum unless taken at the 700 level or above.

UW–Madison University Special

The program may decide to accept up to 15 University Special student credits as fulfillment of the minimum graduate residence, graduate degree, or minor credit requirements on occasion as an exception (on a case-by-case basis). UW–Madison coursework taken as a University Special student would not be allowed to count toward the 50% graduate coursework minimum unless taken at the 700 level or above.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

n/a

LEARNING OUTCOMES

1. Demonstrate mastery in both the practice and broad understanding of major trends and the historical underpinnings, methodologies and techniques of contemporary visual art both orally and in writing.
2. Demonstrate and develop critical thinking skills through required coursework and additional self selected courses within the department and across campus as well as through independent study with individual professors.
3. Examine and evaluate specific examples of artistic and academic production as it relates to their area of artistic research.
4. Gain exposure to wide set of professional resources and career opportunities.
5. Develop and complete original research that advances a field of study in at least one of the broad based discipline areas represented in the Department of Art.
6. Evaluate and interpret professional writing from a variety of disciplines and use this information to develop a theoretical framework for their own artistic research.
7. Learn to develop a rigorous and sustainable studio practice.
8. Develop independent and self directed artistic research.
9. Learn to develop the necessary materials to submit grant proposals to professional organizations.
10. Develop a critical position and broad understanding of the artistic field that they most closely align with through their artistic research.
11. Effectively communicate to diverse audiences in writing, through oral presentations and discussions.
12. Learn to write clear and concise statements articulating the direction and intention of their research for professional publications and exhibitions.
13. Learn to present their research both informatively and articulately to diverse audiences through public lectures and symposiums.
14. Learn to give and receive feedback orally and in writing.
15. Be provided with opportunities to engage in public outreach, exhibitions and education in the community, state and nationally.
16. Teach a variety of courses within the Department of Art Foundations program for undergraduate students.
17. Have the opportunity to apply for competitive positions as instructors of record for the following undergraduate courses in Drawing, Design, Digital Media and 20th century Art History and Contemporary Practices.
18. Be provided opportunities for mentorship in teaching methods.
19. Be provided opportunities for observation and shadowing full time teaching faculty in the Department of Art.
20. (Career Preparation) Be provided with diverse training that will prepare them for a range of flexible and sustainable careers (e.g., academia,

PROFESSIONAL DEVELOPMENT**GRADUATE SCHOOL RESOURCES**

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

industry, community engagement, museum and gallery support services, art commerce and outreach at all levels).

21. Develop broadly applicable skills in critical thinking and problem solving.

22. Be provided with opportunities for leadership, art project management, and teamwork through collaboration, communication skills, and collaborations with academic and non-academic partners.

ART, DOCTORAL MINOR

REQUIREMENTS

Doctoral students pursuing a minor in art must complete 9 credits of graduate-level coursework. Students must obtain faculty consent to enroll in intermediate- and advanced-level studio courses. Courses must be taken in the same media/discipline: painting and drawing, printmaking, book arts paper making, 4-D digital art—performance and video, ceramics, glass, sculpture, wood working, or metals. Approval by your major advisor must be obtained, and proposed courses must be approved by the art department graduate coordinator before coursework commences.

PEOPLE

FACULTY

For more information about faculty, see UW/ART (<https://art.wisc.edu/people/faculty>).

Faisal Abdu'Allah (Printmaking)
Emily Arthur (Printmaking)
Lynda Barry (Comics)
Derrick Buisch (Painting & Drawing)
Jeffrey Clancy (Metals)
Laurie Beth Clark (4-D)
Jim Escalante (Book Arts)
Sarah FitzSimons (Sculpture)
Aristotle Georgiades (Sculpture)
Lisa Gralnick (Metals)
Gerit Grimm (Ceramics)
Stephen Hilyard (4-D)
John Hitchcock (Printmaking)
Tom Jones (Photography)
Helen Lee (Glass)
Tom Loeser (Wood Working)
Dennis Miller (Graphic Design)
Meg Mitchell (4-D)
Nancy Mladenoff (Painting & Drawing)
Michael Peterson (4-D)
Douglas Rosenberg (4-D)
Elaine Scheer (Painting & Drawing)
Gail Simpson (Sculpture)
Leslie Smith III (Painting & Drawing)
T.L. Solien (Painting & Drawing)
Fred Stonehouse (Painting & Drawing)
José Carlos Teixeira (4-D)

FACULTY ASSOCIATES

Mary Hoeffler (Art Education)

Michael Valliquette (Art Foundations)

ART, M.A.

Note: The M.A in Studio Art is offered as part of the Art MFA (p. 101) in Studio Art program. The Art M.A degree is awarded during the fourth semester of the MFA program as acknowledgement of the completion of the MFA qualifying evaluation. Applicants who are interested in pursuing an M.A in Studio Art must apply to the Art MFA program.

The graduate program in art is currently comprised of approximately 70 graduate students and 27 full-time faculty. The faculty is a distinguished group of professional artists who are active in the research and exhibition of their work and are also devoted teachers. An important strength of the graduate program lies in the breadth and diversity of its faculty. The program continues to grow and provides a wealth of artistic experiences for its students.

AREAS OF STUDY

Relief Printing

The graduate relief printing area concentrates on all forms of relief printmaking and unique prints. Specialized courses are offered in woodcut, linocut, and other forms of raised surface printing. The interrelationship between relief printing, monotype/monoprints, hybrid print techniques, installation and those in typographic design and fine book reproduction is encouraged. The Relief lab is equipped with a Takach press, Vandercook letter press, Charles Brand Press, and Reliance Press.

Screen Printing

Graduate screen printing concentrates on formulating ideas and developing a personal visual language. The program utilizes the technical experience of the intro course (photo based, hand-cut and painted stencils, digital media) and develops the use of color, transparencies, and textural effects to realize print editions and unique prints that reflect creativity and technical competence. The use of the multiple in a contemporary context for installation-based artworks, multimedia, and dimensional prints is encouraged. The serigraphy lab is equipped with two large vacuum bases to print 4x5ft and 5x8ft, three medium size vacuum bases, two washout units, two light exposure tables, light tables, and a variety of screens.

Etching/Intaglio

The etching/intaglio classes present this traditional process by laying the groundwork of basic technique to further understanding of its experimental possibilities. Five presses of varying size offer the capacity to explore many techniques, from traditional engraving and etching with hard, soft and granular grounds, to photo etching processes. There is an emphasis on color and multiple plate printing as well as monoprint methods. Aside from methods, students do research into the history of the multiple and its current use in all areas of contemporary art. Enlargement of the medium into installation and use of nontraditional substrates and formats are expected. The use of digital technology such as digital camcorders, digital cameras and inkjet printing expand this medium's contemporary currency.

Lithography

Lithography works are based in individual conceptual development while utilizing both stones and aluminum plates. Course work is geared to a high degree of craft and professionalism. All phases of lithography are stressed including direct, transfer and photo. The center of the program is a well-equipped workshop incorporating five presses, a very large graining

sink, and more than 100 stones of varying sizes up to 30 inches by 40 inches.

Digital Printmaking

Courses in digital print-production techniques provide graphics students with the necessary skills to take original art or digital media to printed output. Courses also provide a thorough explanation of the various systems, software, and hardware fundamentals involved in the integration of digital forms with etching, lithography, screen printing, photography, book arts, and graphic design. Print Production Techniques (Digital Printmaking) is also designed as an introductory course to ART 636 Computer Augmented Printmaking. As part of their course work, students will learn to utilize campus computer facilities as well as the Design Center or MERIT Lab, Print Production Studio, and the Digital Printmaking Center.

Topics covered will include an introduction to image acquisition for high resolution output, color proofing, imaging for photo plates and screens, introductory digital color-management and theory, printmaking and computer art history, and a survey of emerging print technologies including an expanded notion of electronic image presentation and distribution for the web. Simulations in virtual classrooms will be included as part of the learning environment. Student evaluations will be based on work produced for three critiques during the semester and a final portfolio review.

Graphic Design and Typography

The courses in graphic design emphasize the process of visual communication of ideas and information, with attention to aesthetic considerations, techniques, and methods. Course work in letterpress and computer typesetting introduce historical and visual aspects of formal typography and serve to facilitate experimentation with the communicative properties of type. Practical study in this area involves the design and production of books, broadsides, brochures, and posters; the development and application of logotypes and design formats; and utilizing the facilities of letterpress, computer technologies, and graphic reproduction techniques. In addition, a focus on book structures and artists' books is provided.

Photography

The photography area encourages students to pursue their advanced research in a multidisciplinary program. Students may work strictly in photography or in combination with other disciplines such as bookmaking, typography, printmaking, installation, video, or web-based work. There is a high teacher-to-student ratio in order to promote a supportive atmosphere for artist development. Students are given a studio with access to a private black & white darkroom and digital lab. The general photography labs include facilities for digital, black & white, and alternative processes.

Paper Making

The courses in paper making are concerned with understanding the inherent materials used in the paper making processes as applied to traditional sheet forming and as they relate to other contemporary concepts in book arts, sculpture and drawing. New paper-making facilities were opened in May 2009 in the Art Lofts building.

Drawing and Painting

Courses in painting emphasizes conceptual, formal, and material logic in the development of an individualized studio practice. This course of study promotes an understanding of contemporary and historical painting and drawing practice as well as the theoretical premises pertinent to furthering the student's intellectual and creative development.

Within the multidisciplinary department, the student is encouraged to access the broad variety of available facilities, equipment, and faculty fundamental to their continued artistic growth and specialization. Graduate students are provided with a private studio space

Sculpture

The sculpture area offers a balance between techniques and concepts. Various forms of expression from object making, installation, and time-based media are encouraged. Issues of professional practice within the traditional art venues as well as in the larger public domain are addressed. Students are encouraged to develop their individual voice as artists, be part of a constructive community, and prepare to be creative citizens.

Facilities are available for most of the processes needed to produce sculpture: welding (including MIG and TIG), a foundry with a large alpine sculpture kiln for foundry molds and two gas melt furnaces, forging facilities, and shops for mixed media construction, casting and paint.

Woodworking and Furniture Design

The wood/furniture area explores the technical and conceptual possibilities of woodworking and furniture design. The curriculum is project-based and teaches a full range of skills from design development through drawing and model building, as well as hand and machine based construction skills. Graduate students receive a work space in one of two private bench rooms attached to the machine room and have 24-hour access to the studio facility. The graduate program stresses advanced visual research and is highly flexible. Graduate students produce both functional and nonfunctional work that represents a wide spectrum of aesthetic perspectives. The context of a very large and diverse research university allows for effective support and mentoring of varied and wide-ranging approaches to art making. Experimentation and collaboration with other areas of the Art Department and the larger university are actively encouraged.

The wood/furniture facilities offer a state-of-the-art laboratory for working with wood. However, the program promotes and endorses a far-reaching exploration of traditional and cutting edge materials as well as newer digitally driven approaches to design and fabrication. Graduate studio research includes extensive one-on-one interaction with faculty from all areas of the Art Department. Additional feedback is provided through group critiques by faculty, fellow students, guest critics, and visiting artists.

Ceramics

The ceramics area emphasizes a relationship between the field of ceramics and contemporary approaches to art making, theory, and criticism. The area offers a diverse approach to materials and processes, emphasizing work that is both technically proficient and conceptually diverse. Through advanced study, students will gain an understanding of the technical concerns involved in ceramic production such as clay and glaze calculation and mold making, while simultaneously developing the critical and historical skills necessary to apply those processes to finished works. The ceramics studio offers a wide assortment of equipment including a fully stocked supply of raw materials for clay and glaze mixing, digital scales and test kilns, electric wheels, extruders, slab rollers, an industrial spray booth, slip casting equipment, and a variety of both updraft gas and computer-controlled electric kilns. Graduate students receive private studio space, and are strongly encouraged to experiment and collaborate with other areas of the Art Department and university. Graduate-level research includes extensive one-on-one interaction with faculty from all areas of the department, with additional

feedback provided through group critiques by faculty, fellow students, guest critics, and visiting artists.

Glass

Courses in glass stress proficiency in the basic manipulative processes inherent in the glass medium and encourage students to expand traditional boundaries to use old technologies along with new lighting technologies. The glass area has been one of the first tenants in the department's loft building. Facilities are available to accomplish most hot and cold working methods. Students, faculty, and lecturers often exhibit their work in public settings beyond the traditional gallery setting. The graduate studios are in the Art Lofts building, creating a lively environment for making and studying artwork.

Metals

The metals area at UW–Madison has a long and distinguished history. The area is designed to challenge students to learn about the making of art through the specific materials, techniques, history, and cultural significance of the metalsmithing and jewelry fields. Technical proficiency is encouraged in the service of deep socially significant investigation and research. Analytical and critical thinking, historical responsibility, and theoretical awareness are explored in a seminar setting with metals faculty. Visiting artists offer lectures, demonstrations, and individual critiques with grad students that round out this rigorous and comprehensive area.

The metals studios occupy six rooms on the seventh floor of the Mosse Humanities Building. With approximately 4,500 square feet of instructional and studio space, these well-equipped facilities include acetylene, ox/acetylene and propane torches, annealing booths, centrifugal and vacuum casting equipment, enameling kilns and enamels, flexible shafts machines at every work station, a large selection of anvils, hammers and stakes for raising, forming and forging, hydraulic die forming, a gas forge, electroforming, manual and electric rolling mills, sand blaster, band and jig saws, lathes, milling machines and drill presses, a dedicated polishing room, spray etchers, sheet metal working equipment, mold making equipment, and a full compliment of hand tools. The resource center includes a computer, digital projector, photo equipment, and metals library.

Non-Static Forms

Courses in non-static forms include video and performance art. Students have access to media facilities throughout the university and are encouraged to participate in classes in non-static forms and to experiment with new media. Courses stress methods of exhibition, documentation, and distribution that are unique to the non-static media. Both individual and collaborative projects are possible, and frequent opportunities are available for students to exhibit or perform.

Digital Media

The Digital Media area provides classes and faculty which allow graduate students to expand their use of digital media tools in the context of their own fine art practice. Classes offered cover a wide range of digital forms including digital imaging, web authoring, flash animation, video and audio manipulation and 3D modeling and animation using Rhino and Maya. All classes provide a balance of technical information on the relevant media and coverage of the historical and conceptual implications of their use in a fine art context. Students are encouraged to consider digital tools as part of an integrated art practice that is concept and content driven rather than media specific. As well as supporting students whose art work is presented in digital formats the Digital Media area provides opportunities for artists working in all media to incorporate new methodologies into their practice. In the department and wider campus

both Mac and PC based facilities are available with specialized facilities provided for 3D animation, video editing, 3D printing (rapid prototyping) and large format 2D printing.

ADMISSIONS

For up-to-date application instructions, see Graduate Application (<https://art.wisc.edu/graduate/graduate-application>) on the art department website.

To be admitted as a graduate student with full standing, an applicant must meet the minimum Graduate School requirements. The Graduate Record Exam (GRE) is not required for admission.

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It will take 24 hours for your Graduate School Electronic Application to process and appear in our system. Generally, the link to the SlideRoom application is sent the following day. Once you receive a confirmation e-mail, you will be able to register with SlideRoom, log in, and complete the Art Department's supplemental application. You will be sent an email with a link to the MFA admissions application page (SlideRoom). After you register your account, you will apply to **Program 1 –Admittance Application NEW MFA APPLICANTS**.

The SlideRoom application will walk you through the process of uploading your portfolio, as well as applying for funding opportunities through the Art Department. The department offers a number of teaching assistantships, both classroom and support positions, along with scholarships to qualified applicants. You will also be asked to upload a portfolio of 20 images of your recent artwork.

Your portfolio must be submitted through SlideRoom; mailed portfolios will not be reviewed. Applicants may upload images (jpg, gif, or png), video (mov, wmv, flv), or PDF documents. For all technical assistance with SlideRoom, contact support@support@slideroom.com.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

FUNDING FOR MFA GRADUATES IN STUDIO ART

The Art Department awards roughly \$1.3 million annually to fund graduate student education. Funding comes in the form of teaching assistantships (TA & TA-IS), project assistantships (PA), fellowships, and scholarship funding packages. TA, PA and fellowship awards provide full tuition remission, living stipends, and medical benefits. Scholarships range in awarded amounts and are used to offset annual tuition costs. Students apply every year for funding and are awarded comprehensive funding packages based on their continued success in the program. Funding is based on sustained academic and artistic progress and satisfactory performance toward the completion of the degree. For up-to-date application instructions, see Graduate Funding (<https://art.wisc.edu/graduate/graduate-funding>) on the Art Department website.

FUNDING THROUGH THE ART DEPARTMENT

Art Department Teaching Assistantships: Continuing students apply for teaching assistantship (TA) positions in November, through the Annual Funding Application. Incoming students will apply for TA positions within the department's Admissions Application. Because of the demanding responsibilities of these positions, the department prioritizes students moving into their second and third year of the program. All continuing students are offered an interview for TA positions. Students completing their third year of the program are not eligible to teach a fourth year. Qualified incoming applicants will be considered for an interview, as class sections become available. Students may hold a TA position for two years **only**. An appointment as a TA includes remission of all tuition (excluding segregated fees or extra course fees) and health insurance coverage for the duration of the appointment. Appointments usually require teaching two studio sections or three discussion sections per semester.

Art Department Project Assistantships and Teaching

Assistant—Instructional Staff: Project assistantship (PA) and teaching assistant—instructional staff (TA-IS) positions are available within and outside of the department. These are limited-term appointments that pay a salary and provide benefits for studio, lab, or research work. TA-IS applications are included in the Annual Funding Application provided to continuing students in November. Incoming students will apply for TA-IS positions within the department's Admissions Application. An appointment as a TA-IS includes remission of all tuition (excluding segregated fees or extra course fees) and health insurance coverage for the duration of the appointment.

PA positions are offered to qualified students, both incoming and continuing students, by direct selection of faculty members. There is no separate PA application. Eligible incoming and continuing students who have submitted either their Admittance Application or the department's Annual Funding Application will be considered for PA appointments. In past years, MFA students have been successful in locating PA, TA, and TA-IS positions in other departments, primarily in positions requiring experience in art, design, or writing backgrounds. PA appointments can range from one semester to the full calendar year and provide full tuition remission (excluding segregated fees and extra course fees) and health coverage for the duration of the appointment.

Fellowships: Fellowships are awards that enable graduate students to pursue their degrees full-time. The steering committee nominates students for fellowships. The Graduate School has general fellowship

information on its website (<https://grad.wisc.edu/funding>). These fellowships are administered through the Graduate School.

OTHER OPTIONS TO FUND YOUR EDUCATION

Office of Student Financial Aid (<https://financialaid.wisc.edu>)
333 E. Campus Mall #9701

Financial aid information for graduate student grants, employment appeals, and general loans is available at Student Financial Services. Please note that the Art Department does not have anything to do with student financial aid awards.

Work Study

Work-study is awarded through student financial aid. Work-study positions are listed in the work-study office. Many professors in the Art Department hire work-study students to assist them in lab courses.

Grants Information Collection

Room 262 Memorial Library 608-262-6431

The Grants Information Collection (<https://www.library.wisc.edu/memorial/collections/grants-%20information-collection>) is one of a network of approximately 200 collections established by the Foundation Center, an independent national service organization in New York, to provide an authoritative source of information on foundation and corporate giving for nonprofit organizations. Resources on scholarships, fellowships, grants and other funding opportunities for individuals also constitute a large part of the collection's holdings. In addition to publications from the Foundation Center, including its computerized database, FC Search, the Grants Information Collection also includes other sources of information in both print and electronic format on private and corporate foundations and federal funding agencies. Here, supplemented by other campus collections, users can also find books, periodicals and pamphlets and a sampling of videos on fund raising, proposal writing and philanthropy.

The Albert Murray Fine Arts Educational Fund

A number of Art Department graduate students have received support from this fund. Applications for graduate and undergraduate students are available in the Art Department office. You may also contact the Albert K. Murray Fine Arts Educational Fund, Post Office Box 367, Adamsville, OH 43802-0367.

College Art Association

The College Art Association has a Professional Development Fellowship program to help students of color make the transition from graduate school to a professional career. The fellowship is available to students who demonstrate financial need and will receive their MFA or Ph.D. in the upcoming academic year. Contact: College Art Association (<http://www.collegeart.org>), 275 Seventh Avenue, New York, NY 10001, phone: 212-691-1051 x209.

Fulbright and Other Travel Programs

Fulbright Fellowships provide round-trip international transportation, tuition (when applicable), health and accident insurance, and maintenance for one academic year. The Fellowships Office also administers other travel fellowships including the Lusk Memorial Fellowship and the Miguel Vinciguerra Fellowship. For applications contact the Fellowships Office, 327 Ingraham Hall, 1155 Observatory Drive, Madison, WI 53706, 608-265-2409.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 32 credits

Minimum Residence Credit Requirement 23 credits

Minimum Graduate Coursework Requirement Half of degree coursework (16 credits out of 32 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements No other specific grade requirements.

Assessments and Examinations At the end of the fourth semester, M.A. candidates will have an oral and written review of their creative work conducted by a committee of three tenure-track professors and an optional fourth, nonsigning member.

Language Requirements No language requirements.

COURSES REQUIRED

Code	Title	Credits
Art		
ART 700	Introduction to Graduate Studies in Art	3
ART 908	Seminar-Art	3
ART 508	Colloquium in Art	1
	Art History (Students must take two Art History courses that are >300 level)	6
	Outside Academic Elective >300 level (This course cannot be a studio course and must be taken outside of the Art Department)	3
	16 additional credits chosen in consultation with advisor	16
Total Credits		32

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://art.wisc.edu/wp-content/uploads/sites/3/2017/10/Amendment-Oct-24.pdf>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 9 credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW-Madison Undergraduate

No credits from a UW-Madison undergraduate degree are allowed to count toward the degree.

UW-Madison University Special

With program approval, students are allowed to count no more than 9 credits of coursework numbered 300 or above taken as a UW-Madison University Special student. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

ADVISOR / COMMITTEE

All students are required to conduct a yearly progress report meeting with their major professor. Committee is formed by the end of the student's third semester for M.A. qualifiers in their fourth semester.

CREDITS PER TERM ALLOWED

12 credits per semester, 13 with petition

TIME CONSTRAINTS

The M.A. show of creative work must be completed by the fourth semester of the candidate's studies.

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

In the three-year program of study, students may receive both M.A. and MFA degrees.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Demonstrate mastery in both the practice and broad understanding of major trends and the historical underpinnings, methodologies and techniques of contemporary visual art both orally and in writing.
2. Demonstrate and develop critical thinking skills through required coursework and additional self selected courses within the department and across campus as well as through independent study with individual professors.

3. Examine and evaluate specific examples of artistic and academic production as it relates to their area of artistic research.

4. Gain exposure to wide set of professional resources and career opportunities.

5. Develop and complete original research that advances a field of study in at least one of the broad based discipline areas represented in the Department of Art.

6. Evaluate and interpret professional writing from a variety of disciplines and use this information to develop a theoretical framework for their own artistic research.

7. Learn to develop a rigorous and sustainable studio practice.

8. Develop independent and self directed artistic research.

9. Learn to develop the necessary materials to submit grant proposals to professional organizations.

10. Develop a critical position and broad understanding of the artistic field that they most closely align with through their artistic research.

11. (Communication) Effectively communicate to diverse audiences in writing, through oral presentations and discussions.

12. Learn to write clear and concise statements articulating the direction and intention of their research for professional publications and exhibitions.

13. Learn to present their research both informatively and articulately to diverse audiences through public lectures and symposiums.

14. Learn to give and receive feedback orally and in writing.

15. Be provided with opportunities to engage in public outreach, exhibitions and education in the community, state and nationally.

16. (Teaching effectively) Teach a variety of courses within the Department of Art foundations program for undergraduate students.

17. Have the opportunity to apply for competitive positions as instructors of record for the following undergraduate courses in drawing, design, digital media and 20th-century art history and contemporary practices.

18. Be provided opportunities for mentorship in teaching methods.

19. Be provided opportunities for observation and shadowing full time teaching faculty in the Department of Art.

20. Be provided with diverse training that will prepare them for a range of flexible and sustainable careers (e.g., academia, industry, community engagement, museum and gallery support services, art commerce and outreach at all levels).

21. Develop broadly applicable skills in critical thinking and problem solving.

22. Be provided with opportunities for leadership, art project management, and teamwork through collaboration, communication skills, and collaborations with academic and nonacademic partners.

PEOPLE

FACULTY

For more information about faculty, see UW/ART. (<https://art.wisc.edu/people/faculty>)

Faisal Abdu'Allah (Printmaking)
Emily Arthur (Printmaking)
Lynda Barry (Comics)
Derrick Buisch (Painting & Drawing)
Jeffrey Clancy (Metals)
Laurie Beth Clark (4-D)
Jim Escalante (Book Arts)
Sarah FitzSimons (Sculpture)
Aristotle Georgiades (Sculpture)
Lisa Gralnick (Metals)
Gerit Grimm (Ceramics)
Stephen Hilyard (4-D)
John Hitchcock (Printmaking)
Tom Jones (Photography)
Helen Lee (Glass)
Tom Loeser (Wood Working)
Dennis Miller (Graphic Design)
Meg Mitchell (4-D)
Nancy Mladenoff (Painting & Drawing)
Michael Peterson (4-D)
Douglas Rosenberg (4-D)
Elaine Scheer (Painting & Drawing)
Gail Simpson (Sculpture)
Leslie Smith III (Painting & Drawing)
T.L. Solien (Painting & Drawing)
Fred Stonehouse (Painting & Drawing)
José Carlos Teixeira (4-D)

FACULTY ASSOCIATES

Mary Hoeffler (Art Education)
Michael Valliquette (Art Foundations)

ACCREDITATION

ACCREDITATION

National Association of Schools of Art and Design (<https://nasad.arts-accredit.org>)

Accreditation status: Accredited. Next accreditation review: 2025–2026.

ART, MFA

The Art Department at the University of Wisconsin–Madison offers a wide selection of areas of study, and the MFA program encourages an inter-disciplinary approach to art making.

The graduate program in art is currently comprised of approximately 70 graduate students and 27 full-time faculty. The faculty is a distinguished group of professional artists who are active in the research and exhibition of their work and are also devoted teachers. An important strength of the graduate program lies in the breadth and diversity of its faculty. The

program continues to grow and provides a wealth of artistic experiences for its students.

AREAS OF STUDY

Relief Printing

The graduate relief printing area concentrates on all forms of relief printmaking and unique prints. Specialized courses are offered in woodcut, linocut, and other forms of raised surface printing. The interrelationship between relief printing, monotype/monoprints, hybrid print techniques, installation and those in typographic design and fine book reproduction is encouraged. The Relief lab is equipped with a Takach press, Vandercook letter press, Charles Brand Press, and Reliance Press.

Screen Printing

Graduate screen printing concentrates on formulating ideas and developing a personal visual language. The program utilizes the technical experience of the intro course (photo based, hand-cut and painted stencils, digital media) and develops the use of color, transparencies, and textural effects to realize print editions and unique prints that reflect creativity and technical competence. The use of the multiple in a contemporary context for installation-based artworks, multimedia, and dimensional prints is encouraged. The serigraphy lab is equipped with two large vacuum bases to print 4x5ft and 5x8ft, three medium size vacuum bases, two washout units, two light exposure tables, light tables, and a variety of screens.

Etching/Intaglio

The etching/intaglio classes present this traditional process by laying the groundwork of basic technique to further understanding of its experimental possibilities. Five presses of varying size offer the capacity to explore many techniques, from traditional engraving and etching with hard, soft and granular grounds, to photo etching processes. There is an emphasis on color and multiple plate printing as well as monoprint methods. Aside from methods, students do research into the history of the multiple and its current use in all areas of contemporary art. Enlargement of the medium into installation and use of nontraditional substrates and formats are expected. The use of digital technology such as digital camcorders, digital cameras and inkjet printing expand this medium's contemporary currency.

Lithography

Lithography works are based in individual conceptual development while utilizing both stones and aluminum plates. Course work is geared to a high degree of craft and professionalism. All phases of lithography are stressed including direct, transfer and photo. The center of the program is a well-equipped workshop incorporating five presses, a very large graining sink, and more than 100 stones of varying sizes up to 30 inches by 40 inches.

Digital Printmaking

Courses in digital print-production techniques provide graphics students with the necessary skills to take original art or digital media to printed output. Courses also provide a thorough explanation of the various systems, software, and hardware fundamentals involved in the integration of digital forms with etching, lithography, screen printing, photography, book arts, and graphic design. Print Production Techniques (Digital Printmaking) is also designed as an introductory course to ART 636 Computer Augmented Printmaking. As part of their course work, students will learn to utilize campus computer facilities as well as the Design Center or MERIT Lab, Print Production Studio, and the Digital Printmaking Center.

Topics covered will include an introduction to image acquisition for high resolution output, color proofing, imaging for photo plates and screens, introductory digital color-management and theory, printmaking and computer art history, and a survey of emerging print technologies including an expanded notion of electronic image presentation and distribution for the web. Simulations in virtual classrooms will be included as part of the learning environment. Student evaluations will be based on work produced for three critiques during the semester and a final portfolio review.

Graphic Design and Typography

The courses in graphic design emphasize the process of visual communication of ideas and information, with attention to aesthetic considerations, techniques, and methods. Course work in letterpress and computer typesetting introduce historical and visual aspects of formal typography and serve to facilitate experimentation with the communicative properties of type. Practical study in this area involves the design and production of books, broadsides, brochures, and posters; the development and application of logotypes and design formats; and utilizing the facilities of letterpress, computer technologies, and graphic reproduction techniques. In addition, a focus on book structures and artists' books is provided.

Photography

The photography area encourages students to pursue their advanced research in a multidisciplinary program. Students may work strictly in photography or in combination with other disciplines such as bookmaking, typography, printmaking, installation, video, or web-based work. There is a high teacher-to-student ratio in order to promote a supportive atmosphere for artist development. Students are given a studio with access to a private black & white darkroom and digital lab. The general photography labs include facilities for digital, black & white, and alternative processes.

Paper Making

The courses in paper making are concerned with understanding the inherent materials used in the paper making processes as applied to traditional sheet forming and as they relate to other contemporary concepts in book arts, sculpture and drawing. New paper-making facilities were opened in May 2009 in the Art Lofts building.

Drawing and Painting

Courses in painting emphasizes conceptual, formal, and material logic in the development of an individualized studio practice. This course of study promotes an understanding of contemporary and historical painting and drawing practice as well as the theoretical premises pertinent to furthering the student's intellectual and creative development.

Within the multidisciplinary department, the student is encouraged to access the broad variety of available facilities, equipment, and faculty fundamental to their continued artistic growth and specialization. Graduate students are provided with a private studio space

Sculpture

The sculpture area offers a balance between techniques and concepts. Various forms of expression from object making, installation, and time-based media are encouraged. Issues of professional practice within the traditional art venues as well as in the larger public domain are addressed. Students are encouraged to develop their individual voice as artists, be part of a constructive community, and prepare to be creative citizens.

Facilities are available for most of the processes needed to produce sculpture: welding (including MIG and TIG), a foundry with a large alpine

sculpture kiln for foundry molds and two gas melt furnaces, forging facilities, and shops for mixed media construction, casting and paint.

Woodworking and Furniture Design

The wood/furniture area explores the technical and conceptual possibilities of woodworking and furniture design. The curriculum is project-based and teaches a full range of skills from design development through drawing and model building, as well as hand and machine based construction skills. Graduate students receive a work space in one of two private bench rooms attached to the machine room and have 24-hour access to the studio facility. The graduate program stresses advanced visual research and is highly flexible. Graduate students produce both functional and nonfunctional work that represents a wide spectrum of aesthetic perspectives. The context of a very large and diverse research university allows for effective support and mentoring of varied and wide-ranging approaches to art making. Experimentation and collaboration with other areas of the Art Department and the larger university are actively encouraged.

The wood/furniture facilities offer a state-of-the-art laboratory for working with wood. However, the program promotes and endorses a far-reaching exploration of traditional and cutting edge materials as well as newer digitally driven approaches to design and fabrication. Graduate studio research includes extensive one-on-one interaction with faculty from all areas of the Art Department. Additional feedback is provided through group critiques by faculty, fellow students, guest critics, and visiting artists.

Ceramics

The ceramics area emphasizes a relationship between the field of ceramics and contemporary approaches to art making, theory, and criticism. The area offers a diverse approach to materials and processes, emphasizing work that is both technically proficient and conceptually diverse. Through advanced study, students will gain an understanding of the technical concerns involved in ceramic production such as clay and glaze calculation and mold making, while simultaneously developing the critical and historical skills necessary to apply those processes to finished works. The ceramics studio offers a wide assortment of equipment including a fully stocked supply of raw materials for clay and glaze mixing, digital scales and test kilns, electric wheels, extruders, slab rollers, an industrial spray booth, slip casting equipment, and a variety of both updraft gas and computer-controlled electric kilns. Graduate students receive private studio space, and are strongly encouraged to experiment and collaborate with other areas of the Art Department and university. Graduate-level research includes extensive one-on-one interaction with faculty from all areas of the department, with additional feedback provided through group critiques by faculty, fellow students, guest critics, and visiting artists.

Glass

Courses in glass stress proficiency in the basic manipulative processes inherent in the glass medium and encourage students to expand traditional boundaries to use old technologies along with new lighting technologies. The glass area has been one of the first tenants in the department's loft building. Facilities are available to accomplish most hot and cold working methods. Students, faculty, and lecturers often exhibit their work in public settings beyond the traditional gallery setting. The graduate studios are in the Art Lofts building, creating a lively environment for making and studying artwork.

Metals

The metals area at UW–Madison has a long and distinguished history. The area is designed to challenge students to learn about the making

of art through the specific materials, techniques, history, and cultural significance of the metalsmithing and jewelry fields. Technical proficiency is encouraged in the service of deep socially significant investigation and research. Analytical and critical thinking, historical responsibility, and theoretical awareness are explored in a seminar setting with metals faculty. Visiting artists offer lectures, demonstrations, and individual critiques with grad students that round out this rigorous and comprehensive area.

The metals studios occupy six rooms on the seventh floor of the Mosse Humanities Building. With approximately 4,500 square feet of instructional and studio space, these well-equipped facilities include acetylene, ox/acteylene and propane torches, annealing booths, centrifugal and vacuum casting equipment, enameling kilns and enamels, flexible shafts machines at every work station, a large selection of anvils, hammers and stakes for raising, forming and forging, hydraulic die forming, a gas forge, electroforming, manual and electric rolling mills, sand blaster, band and jig saws, lathes, milling machines and drill presses, a dedicated polishing room, spray etchers, sheet metal working equipment, mold making equipment, and a full compliment of hand tools. The resource center includes a computer, digital projector, photo equipment, and metals library.

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FUNDING THROUGH THE ART DEPARTMENT

Art Department Teaching Assistantships: Continuing students apply for teaching assistantship (TA) positions in November, through the Annual Funding Application. Incoming students will apply for TA positions within

the department's Admissions Application. Because of the demanding responsibilities of these positions, the department prioritizes students moving into their second and third year of the program. All continuing students are offered an interview for TA positions. Students completing their third year of the program are not eligible to teach a fourth year. Qualified incoming applicants will be considered for an interview, as class sections become available. Students may hold a TA position for two years **only**. An appointment as a TA includes remission of all tuition (excluding segregated fees or extra course fees) and health insurance coverage for the duration of the appointment. Appointments usually require teaching two studio sections or three discussion sections per semester.

Art Department Project Assistantships and Teaching

Assistant—Instructional Staff: Project assistantship (PA) and teaching assistant—Instructional Staff (TA-IS) positions are available within and outside of the department. These are limited-term appointments that pay a salary and provide benefits for studio, lab, or research work. TA-IS applications are included in the Annual Funding Application provided to continuing students in November. Incoming students will apply for TA-IS positions within the department's Admissions Application. An appointment as a TA-IS includes remission of all tuition (excluding segregated fees or extra course fees) and health insurance coverage for the duration of the appointment.

PA positions are offered to qualified students, both incoming and continuing students by direct selection of faculty members. There is no separate PA application. Eligible incoming and continuing students who have submitted either their Admittance Application or the department's Annual Funding Application will be considered for PA appointments. In past years, MFA students have been successful in locating PA, TA, and TA-IS positions in other departments, primarily in positions requiring experience in art, design or writing backgrounds. PA Appointments can range from one semester to the full calendar year and provide full tuition remission (excluding segregated fees and extra course fees) and health coverage for the duration of the appointment.

Fellowships: Fellowships are awards that enable graduate students to pursue their degrees full-time. The steering committee nominates students for fellowships. The Graduate School has general fellowship information on its website (<http://grad.wisc.edu/funding>). These fellowships are administered through the Graduate School.

OTHER OPTIONS TO FUND YOUR EDUCATION

Office of Student Financial Aid (<https://financialaid.wisc.edu>)

333 East Campus Mall #9701

Financial Aid information for graduate student grants, employment appeals and general loans is available at Student Financial Services. Please note that the Art Department does not have anything to do with student financial aid awards.

Work-Study

Work-study is awarded through student financial aid. Work-study positions are listed in the work-study office. Many professors in the Art Department hire work study students to assist them in lab courses.

Grants Information Collection

Room 262 Memorial Library, 608-262-6431

The Grants Information Collection (<https://www.library.wisc.edu/memorial/collections/grants-%20information-collection>) is one of a network of approximately 200 collections established by the Foundation Center, an independent national service organization in New York,

to provide an authoritative source of information on foundation and corporate giving for nonprofit organizations. Resources on scholarships, fellowships, grants and other funding opportunities for individuals also constitute a large part of the collection's holdings. In addition to publications from the Foundation Center, including its computerized database, FC Search, the Grants Information Collection also includes other sources of information in both print and electronic format on private and corporate foundations and federal funding agencies. Here, supplemented by other campus collections, users can also find books, periodicals and pamphlets and a sampling of videos on fund raising, proposal writing and philanthropy.

The Albert Murray Fine Arts Educational Fund

A number of Art Department graduate students have received support from this fund. Applications for graduate and undergraduate students are available in the Art Department office. You may also contact the Albert K. Murray Fine Arts Educational Fund, Post Office Box 367, Adamsville, OH 43802-0367.

College Art Association

The College Art Association has a Professional Development Fellowship program to help students of color make the transition from graduate school to a professional career. The fellowship is available to students who demonstrate financial need and will receive their MFA or Ph.D in the upcoming academic year. Contact: College Art Association (<http://collegeart.org>), 275 Seventh Avenue, New York, NY 10001, phone: 212-691-1051 x209.

Fulbright and Other Travel Programs

Fulbright Fellowships provide round-trip international transportation, tuition (when applicable), health and accident insurance, and maintenance for one academic year. The Fellowships Office also administers other travel fellowships including the Lusk Memorial Fellowship and the Miguel Vinciguerra Fellowship. For applications contact the Fellowships Office, 327 Ingraham Hall, 1155 Observatory Drive, Madison, WI 53706, 608-265-2409.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-

campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 60 credits

Minimum Residence Credit Requirement 51 credits

Minimum Graduate Coursework Requirement Half of degree coursework (30 credits out of 60 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements No other specific grade requirements.

Assessments and Examinations MFA QUALIFIER
Students will host a solo exhibition of their work during the fourth semester of the program. This exhibition serves as an opportunity for the student to meet with their committee to discuss their research as it relates to contemporary studio practice and content, historical context and formal issues. The qualifier functions as a critique in which students can expect to defend the work and field specific questions asked by their committee. After the hour long meeting the committee will give the student a list of questions that the student will write responses to. Two weeks following the exhibition the student submits their written responses for evaluation. The committee will then approve the student to advance in the program.

FINAL MFA EXHIBITION

After the successful completion of the qualifier, students will host a solo exhibition of their work. This exhibition takes place during the sixth semester of the program. The students' committee will come together one time to discuss the candidates' masters body of work along with the decisions the student made in presenting both their work and research. At this meeting students should expect to defend not only their practice, but be able to articulate evidence of their academic research as it relates to the exhibited works. After the hour long meeting the committee will convene and make their recommendations for the conferring of the MFA degree.

Language Requirements No language requirements.

COURSES REQUIRED

Code	Title	Credits
Art		
ART 700	Introduction to Graduate Studies in Art	3
ART 908	Seminar-Art (Students must take two Art Seminar courses)	6
ART 508	Colloquium in Art	1
Art History (Students must take two Art History courses that are >300 level)		6
Outside Academic Elective >300 level (This course cannot be a studio course and must be taken outside of the Art Department)		3
Total Credits		19

Additional Coursework

(Graduate students work with their graduate committee chair to structure coursework and develop research outside of the programs' 19 required credits adding up to the required 60 credits). Below is a partial list of additional coursework students may take while in the program.

Code	Title	Credits
Art Studio		
ART 722	Graduate Painting I	2-3
ART 726	Graduate Intaglio Printmaking I	2-3
ART 736	Graduate Graphics Workshop I	2-6
ART 826	Graduate Intaglio Printmaking II	2-3
ART 836	Graduate Graphics Workshop II	2-6
ART 912	Advanced Research-Drawing	1-4
ART 914	Advanced Research-Sculpture	1-4
ART 922	Advanced Research-Painting	1-4
ART 924	Advanced Research-Ceramics	1-4
ART 944	Advanced Research-Art Metal	1-4
ART 996	Advanced Research-Graphics	1-4
ART 999	Independent Study	1-4
ART 309	Digital Art and Code	4
ART 316	Lithography	4
ART 328	The Computer in the Visual Arts	4
ART 334	Wood Working	3-4
ART 336	Serigraphy	3-4
ART/DANCE 341	Sound Design for the Performing and Visual Arts	3
ART 343	Metal Fabrication and Welding in Sculpture	3-4
ART 354	Glassworking	4
ART 376	Photography	3-4
ART 409	Digital Fabrication Studio	4
ART 414	Art Foundry	3
ART 446	Artists' Books	4
ART 454	Neon: Light as Sculpture	4
ART 456	Illustration	3

ART 466	Papermaking: History, Elements and Techniques	4
ART 470	Special Topics in 4D Art	3-4
ART 511	Art Performance	3-4
ART 518	Artist's Video	4
ART 521	Installations and Environments	4
ART 528	Digital Interactive Studio	4
ART 531	Screen Performance	3-4
ART 608	Interdisciplinary Critique in the Visual Arts	3
ART 636	Computer Augmented Printmaking	4

may be dismissed or allowed to continue based upon review of progress during the probationary semester.

ADVISOR / COMMITTEE

All students are required to conduct a yearly progress report meeting with the chair and members of their committee. The committee will meet at the end of the student's sixth semester to review work for the MFA degree.

CREDITS PER TERM ALLOWED

12 credits per semester, 13 with petition

TIME CONSTRAINTS

The MFA show of creative work must be completed by the sixth or seventh semester of the candidate's studies.

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

In the three-year program of study, students may receive both M.A. and MFA degrees.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://art.wisc.edu/wp-content/uploads/sites/3/2017/10/Amendment-Oct-24.pdf>) is the repository for all of the program's policies and requirements.

Prior Coursework

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 9 credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

With program approval, students are allowed to count no more than 9 credits of coursework numbered 300 or above taken as a UW–Madison University Special student. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

Student progress will be reviewed through coursework or at yearly meetings. If the advisor and graduate committee find that at the yearly meeting or at any other time that a student has failed to achieve satisfactory progress with academic or conduct expectations the student may be dismissed from the program.

Students placed on probation will be placed on probation for one semester and will be reviewed by the program steering committee following the probationary semester. Students placed on probation

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. To facilitate a mastery in both the practice and understanding of major trends in contemporary visual culture.
2. To facilitate a broad and diverse understanding of the historical underpinnings, methodologies and techniques of contemporary visual art.
3. To facilitate the development of critical thinking through coursework within the department and across campus as well as through independent study with individual professors.
4. To facilitate exposure to a wide set of professional resources and career opportunities.
5. To develop and complete original research that advances a field of study in at least one of the broad based discipline areas offered by our program.
6. To attain the skill set necessary to evaluate and interpret professional writing from a variety of disciplines in order to develop a theoretical framework for their own artistic research.
7. To develop develop a rigorous and sustainable studio art practice both in and out of a studio context.

8. To develop professional practices that facilitates a sustainable career in the arts; that allows students to present their research to diverse audiences through public lectures, symposia and exhibitions.

PEOPLE

FACULTY

For more information about faculty, see UW/ART (<https://art.wisc.edu/people/faculty>).

Faisal Abdu'Allah (Printmaking)
Emily Arthur (Printmaking)
Lynda Barry (Comics)
Derrick Buisch (Painting & Drawing)
Jeffrey Clancy (Metals)
Laurie Beth Clark (4-D)
Jim Escalante (Book Arts)
Sarah FitzSimons (Sculpture)
Aristotle Georgiades (Sculpture)
Lisa Gralnick (Metals)
Gerit Grimm (Ceramics)
Stephen Hilyard (4-D)
John Hitchcock (Printmaking)
Tom Jones (Photography)
Helen Lee (Glass)
Tom Loeser (Wood Working)
Dennis Miller (Graphic Design)
Meg Mitchell (4-D)
Nancy Mladenoff (Painting & Drawing)
Michael Peterson (4-D)
Douglas Rosenberg (4-D)
Elaine Scheer (Painting & Drawing)
Gail Simpson (Sculpture)
Leslie Smith III (Painting & Drawing)
T.L. Solien (Painting & Drawing)
Fred Stonehouse (Painting & Drawing)
José Carlos Teixeira (4-D)

FACULTY ASSOCIATES

Mary Hoeffler (Art Education)
Michael Valliquette (Art Foundations)

ACCREDITATION

ACCREDITATION

National Association of Schools of Art and Design (<https://nasad.arts-accredit.org>)

Accreditation status: Accredited. Next accreditation review: 2025–2026.

ART HISTORY

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Art History, Doctoral Minor (p. 107)

- Art History, M.A. (p. 108)
- Art History, Ph.D. (p. 110)
- Material Culture Studies, Graduate/Professional Certificate (p. 114)
- Transdisciplinary Study of Visual Cultures, Doctoral Minor (p. 116)
- Transdisciplinary Study of Visual Cultures, Graduate/Professional Certificate (p. 117)

PEOPLE

Faculty: Professors Andrzejewski (Chair), Cahill, Casid, Chopra, Dale, Drewal, Marshall, Martin, and Phillips; Associate Professors McClure and Phillips-Court; Assistant Professors Brisman, Li, and Pruitt

ART HISTORY, DOCTORAL MINOR

The Doctoral Minor in Art History is intended for students outside of the department to gain familiarity with the discipline generally while also honing an area of specialization.

REQUIREMENTS

The minimum number of credits is 9, and may be more depending on the student's focus and particular research path.

1. All students pursuing the minor are required to take ART HIST 701 Practicum in Art History: Bibliography, Historiography, Methods (Note: With approval, a seminar in theory and method can be substituted for ART HIST 701)
2. Selection of the remaining two courses in Art History should be made with a particular emphasis in mind (Examples of an "emphasis" might include specialization in time period, geography, medium, or theory/methodology)
3. Coursework must be graded courses numbered 600 or above (if a student wants to take a 300- or 400-level course the student must work with the graduate coordinator and professor to set up a grad-level section for the course); no audits or pass/fail
4. Maximum 3 credits of independent study (e.g., 699, 799, 899, 999); research and thesis cannot be used to satisfy the minor (e.g., 790, 890, 990)
5. After the courses have been completed, bring the major department's Minor Agreement Form (<https://uwmadison.box.com/s/za9ifyn1gshzrwfrtvjlp12v3vh9cbds>) to the art history graduate coordinator, department chair, or graduate administrator and have it signed.
6. Return the Minor Agreement Form to the major department to prepare any requisite warrants. A copy will be kept in the art history department.

See the program website (<https://arthistory.wisc.edu/academics/grad/programs/minors/mnrequirements>) for more information.

PEOPLE

Faculty: Professors Andrzejewski (Chair), Cahill, Casid, Chopra, Dale, Drewal, Marshall, Martin, and Phillips; Associate Professors McClure and Phillips-Court; Assistant Professors Brisman, Li, and Pruitt

ART HISTORY, M.A.

The Department of Art History offers programs leading to the master of arts and the doctor of philosophy in art history. Our faculty is comprised of specialists in, to name a few: African and African Diaspora art; American art and architecture; American material culture; contemporary art and theory; Chinese art; curatorial studies; early modern European art; Islamic art and architecture; Japanese art; Medieval European art; print culture; photography, film, and video; vernacular architecture; Victorian art and material culture; and visual studies and critical theory. The department encourages the study of the global history of art, and material and visual culture while investigating works in all media from a wide range of periods and a variety of world cultures.

Students enjoy close interaction with their mentors and profit from superb resources for interdisciplinary research. Faculty members have international reputations in their specialties, regularly receive prestigious awards, lecture widely, and serve on major professional boards. Graduates of the department teach at the postsecondary level or pursue careers in museum and curatorial professions, private galleries and auction houses, library or archival work, architecture and historical preservation, and conservation.

The department is housed in the Conrad A. Elvehjem Building with the Chazen Museum of Art (<http://www.chazen.wisc.edu>), which has a broad historical collection with several areas of particular strength, an active acquisitions program, and facilities to host major traveling exhibitions and exhibition courses. Graduate students use these collections for research and publishing projects. They may also have the opportunity to work on exhibitions in special classes or as project assistants. The building is also home to the Kohler Art Library, which contains an excellent collection of published materials and full range of periodicals. The department possesses a large image collection and access to ArtStor.

ADMISSIONS

While students may pursue a stand-alone M.A., those who wish to pursue a Ph.D. should apply directly to that program. Admission to either program is offered to applicants who have an outstanding undergraduate record of academic achievement. The successful applicant typically presents both a compelling statement of purpose for graduate studies and an advanced research paper. To be considered for admission, applicants must have taken the GRE recently (within five years of their application deadline). To be competitive in some subfields, applicants should have training in at least one foreign language. Applicants are encouraged to contact prospective faculty advisors for more details. Non-native English speakers must present TOEFL or IELTS scores.

Admission to the Asian M.A. track (Chinese or Japanese art) is offered to applicants who have similar qualifications and training, but with an East Asian emphasis and demonstrated skills in the East Asian language appropriate to the intended field of specialization.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have

researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Financial aid is normally reserved for students in the Ph.D. program. The department awards a small number of fellowships for an academic year or a semester's support at different stages in the graduate career. The department awards the Margaret Davison Shorger Fellowship for the study of Italian art, the Charles C. Killin Wisconsin Distinguished Graduate Fellowship in East Asian Art, and the Chipstone/James Watrous Wisconsin Distinguished Graduate Fellowship in American Material Culture. Research travel is also supported by the Shirley L. and Dr. William Fritz Mueller Art History Graduate Student Fund and the Ray Reider Golden Art History Fund, and the Joan Mirviss Fund for Japanese art. The department awards travel grants for students delivering papers at major conferences and annually appoints five to six graduate students as teaching or project assistants. Individual faculty may also offer one- or two-semester project assistantships in connection with specific research projects. In addition, the department nominates candidates for fellowships administered outside the department and the university.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum 30 credits

Credit Requirement

Minimum 24 credits

Residence Credit Requirement

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements No other grade requirements.

Assessments and Examinations No formal examination required. There is an M.A. thesis.

Language Requirements Reading competency in one language.

REQUIRED COURSES

Code	Title	Credits
ART HIST 701	Practicum in Art History: Bibliography, Historiography, Methods	3

M.A. students with a strong background in art history or the equivalent should take a minimum of seven art history courses, at least THREE of which must be seminars

Breadth

At least one course in three of the five following areas:

Cross-Cultural/Diaspora

Africa/Middle East

Asia

Europe

The Americas

At least one course in three of the four following periods:

Ancient to Medieval

Early Modern (Circa 1400–Circa 1800)

Modern (Circa 1800–Circa 1945)

Contemporary (Post 1945)

Language

One foreign language.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 9 credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to the master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

Allowed up to 7 credits numbered 700 or above, and graduate level courses ART HIST 601 Introduction to Museum Studies I, ART HIST 602 Introduction to Museum Studies II, and L I S/ ART HIST/HISTORY/JOURN 650 History of Books and Print Culture in Europe and North America.

UW–Madison University Special

With program approval, students are allowed to count up to 15 credits of coursework numbered 300 or above taken as a UW–Madison University Special student. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The status of a student can be one of three options:

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

ADVISOR / COMMITTEE

All students are required to conduct a yearly progress report meeting with their advisor, scheduled by December 17 and completed by April 30. Failure to do so will result in a hold being placed on the student's registration.

CREDITS PER TERM ALLOWED

12 credits

TIME CONSTRAINTS

The thesis, written in consultation with the major professor, must be completed no later than two semesters after thesis work begins.

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Priority for assistantship funding is given to Ph.D. students.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Mastery of techniques for visual analysis (examining features such as materials, proportion, light, color, form and narrative structure) of single images and for comparative analysis of multiple images and objects.
2. Advanced proficiency in interpreting images/objects in ways that take into account the historical contexts in which they were produced and received.
3. In-depth knowledge across a range of time and geography to reach an understanding of the ways in which art and its meaning are rooted in culture.
4. Advanced ability to locate and enlist research resources in both print and digital form and assess the strengths and weaknesses of various types of resources.
5. Advanced knowledge and skills necessary to interpret images/objects in ways that consider a variety of theoretical perspectives.
6. Ability to assess and critique complex scholarly arguments and evaluate the strength of the visual and textual evidence presented.
7. Advanced skills in effective and impactful communication in both written and oral form in ways that acknowledge diverse audiences in an increasingly global society.
8. Skills in public engagement such that our students are able to effectively communicate complex ideas to a lay public in written, oral, and digital form in keeping with the Wisconsin Idea.

PEOPLE

Faculty: Professors Andrzejewski (Chair), Cahill, Casid, Chopra, Dale, Drewal, Marshall, Martin, and Phillips; Associate Professors McClure and Phillips-Court; Assistant Professors Brisman, Li, and Pruitt

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Students enjoy close interaction with their mentors and profit from superb resources for interdisciplinary research. Faculty members have international reputations in their specialties, regularly receive prestigious awards, lecture widely, and serve on major professional boards. Graduates of the department teach at the postsecondary level or pursue careers in museum and curatorial professions, private galleries and auction houses, library or archival work, architecture and historical preservation, and conservation.

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REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely

online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement	51 credits
Minimum Residence Credit Requirement	32 credits
Minimum Graduate Coursework Requirement	Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.
Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	No other grade requirements.
Assessments and Examinations	Doctoral students must submit a dissertation prospectus. Doctoral students must pass a written and an oral exam prior to becoming dissertators.
Language Requirements	Reading competency in at least two languages (additional language requirements may pertain to some fields).
Doctoral Minor/Breadth Requirements	All doctoral students are required to complete a minor.

REQUIRED COURSES

Code	Title	Credits
Coursework		
ART HIST 701	Practicum in Art History: Bibliography, Historiography, Methods	3

10 art history classes, four of which may be lecture courses, but students are strongly encouraged to take as many seminars as possible. In special circumstances up to two independent studies (ART HIST 799) - one at the MA and one at the Ph.D. level-may be substituted for lecture courses

Breadth

At least one course in two of the following five following areas:

Cross-Cultural/Diaspora

Africa/Middle East

Asia

Europe

The Americas

At least one course in two of the following four following periods:

Ancient to Medieval

Early Modern (Circa 1400–Circa 1800)

Modern (Circa 1800–Circa 1945)

Contemporary (Post 1945)

Language

Two foreign languages. If you satisfied language requirements at the M.A. level within the past 5 years these languages count toward your two required languages.

NAMED OPTIONS (SUB-MAJORS)

A named option is a formally documented sub-major within an academic major program. Named options appear on the transcript with degree conferral.

- Art History: Architectural History, Ph.D. (p. 113)

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 21 credits of graduate work from other institutions. Coursework earned ten years or more prior to admission to the doctoral degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

Allowed up to 7 credits numbered 700 or above, and graduate level courses ART HIST 601 Introduction to Museum Studies I, ART HIST 602 Introduction to Museum Studies II, and ART HIST/HISTORY/JOURN/L I S 650 History of Books and Print Culture in Europe and North America .

UW–Madison University Special

With program approval, students are allowed to count up to 15 credits of coursework numbered 600 or above taken as a UW–Madison University Special student. Coursework earned ten or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

A semester GPA below 3.0 will result in the student being placed on academic probation. If a semester GPA of 3.0 is not attained during the subsequent semester of full time enrollment (or 12 credits of enrollment if enrolled part-time) the student may be dismissed from

the program or allowed to continue for one additional semester based on advisor appeal to the Graduate School.

ADVISOR / COMMITTEE

All students are required to conduct a yearly progress report meeting with their thesis committee after passing the Preliminary Examination.

CREDITS PER TERM ALLOWED

12 credits

TIME CONSTRAINTS

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Priority for assistantship funding is given to Ph.D. students.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Shows professional-level mastery of the skills acquired at earlier stages (visual analysis, contextual interpretation, research methods, evaluation of arguments, application of varied theoretical perspectives).
2. Articulates research problems, potentials, and limits with respect to theory, knowledge, or practice within the field of art history (including visual culture and material culture).
3. Formulates ideas, concepts, designs, and/or techniques beyond the current boundaries of knowledge within the field of art history/visual culture/material culture.
4. Conducts research and produces scholarship that makes a substantive contribution to the field and to interdisciplinary enquiry.
5. Demonstrates breadth within their learning experiences.
6. Shows advanced skills in effective and impactful communication in both written and oral form in ways that acknowledge diverse audiences in an increasingly global society.
7. Fosters ethical and professional conduct.

8. Prepares to be an educator who uses the latest pedagogies such that one can compellingly and thoroughly teach, motivate, and shape the next generation of global citizens in the arts and sciences with a focus on the visual.

9. Foster skills in public engagement such that our students are able to effectively communicate complex ideas about art, visual culture and material culture to a lay public in written, oral, and digital form in keeping with the Wisconsin Idea.

10. Is able to prompt and participate in interdisciplinary dialogue with scholars and the public about the power of images and objects both historically and in the present, to persuade, critique, and even coerce.

PEOPLE

Faculty: Professors Andrzejewski (Chair), Cahill, Casid, Chopra, Dale, Drewal, Marshall, Martin, and Phillips; Associate Professors McClure and Phillips-Court; Assistant Professors Brisman, Li, and Pruitt

ART HISTORY: ARCHITECTURAL HISTORY, PH.D.

Admissions to the Art History: Architectural History Ph.D. have been suspended as of fall 2018. If you have any questions, please contact the department (arthistory@ls.wisc.edu).

This is a named option in the Art History Ph.D. (p. 110)

The Architectural History named option curriculum within the art history department is designed for students whose research is focused on historical study of architecture. The option offers training in specialized skill areas for students working in this area. It also takes advantage of a collaborative relationship between UW–Madison faculty and faculty in the School of Architecture & Urban Planning (<http://www4.uwm.edu/sarup>) at the University of Wisconsin–Milwaukee (UWM) that enables students to take courses at both campuses (known as the Buildings–Landscapes–Cultures (<http://www.blc.wisc.edu>) companion program). Many students involved in the option also participate in the Material Culture Program (<http://www.materialculture.wisc.edu>). The Architectural option was approved in June of 2008; the first class matriculated in 2009.

ADMISSIONS

Admissions to the Art History: Architectural History Ph.D. have been suspended as of fall 2018. If you have any questions, please contact the department (arthistory@ls.wisc.edu).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement	51 credits
Minimum Residence Credit Requirement	32 credits
Minimum Graduate Coursework Requirement	Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.
Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	No other grade requirements.
Assessments and Examinations	Doctoral students must submit a dissertation prospectus. Doctoral students must pass a written and an oral exam prior to becoming dissertators.

Language Requirements	Reading competency in at least two languages (additional language requirements may pertain to some fields).
Doctoral Minor/Breadth Requirements	All doctoral students are required to complete a minor.

REQUIRED COURSES

ART HIST 701, ART HIST 449 Topics in Architectural History Architectural Field School.

The Ph.D. architectural option allows students flexibility in their coursework that enables them to meet requirements of the Ph.D. in art history while also taking specialized coursework necessary for them to work effectively in the specific study of architectural history. Core requirements include an advanced, specialized methods/historiography course in architectural history that also includes students from UWM (to be taken during the student's second semester in residence) and a fieldschool class (usually taken in the summer). Because work in the field of architectural history requires training not only in art history but also in related fields (such as landscape history, design, material culture, and cultural geography), students also take some of their required coursework outside of art history.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

NAMED OPTION-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

Designated courses taught by BLC-affiliated faculty at UW–Milwaukee.

UW–Madison Undergraduate

No prior coursework from UW–Madison undergraduate career may count toward requirements.

UW–Madison University Special

No prior coursework from UW–Madison Special student career may count toward requirements.

PROBATION

A semester GPA below 3.0 will result in the student being placed on academic probation. If a semester GPA of 3.0 is not attained during the subsequent semester of full time enrollment (or 12 credits of enrollment if enrolled part-time) the student may be dismissed from the program or allowed to continue for one additional semester based on advisor appeal to the Graduate School.

ADVISOR / COMMITTEE

All students are required to conduct a yearly progress report meeting with their thesis committee after passing the preliminary examination.

CREDITS PER TERM ALLOWED

12 credits

TIME CONSTRAINTS

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Priority for assistantship funding is given to Ph.D. students.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PEOPLE

Faculty: Professors Andrzejewski (Chair), Cahill, Casid, Chopra, Dale, Drewal, Marshall, Martin, and Phillips; Associate Professors McClure and Phillips-Court; Assistant Professors Brisman, Li, and Pruitt

MATERIAL CULTURE STUDIES, GRADUATE/PROFESSIONAL CERTIFICATE

Admissions to the Material Culture Studies Graduate/Professional Certificate have been suspended as of fall 2018. If you have any questions, please contact the department (arthistory@ls.wisc.edu).

The primary focus of the certificate in material culture studies is to teach different methods and approaches for studying objects as evidence. Those in the program seek to understand how historical, cultural, behavioral, and social meanings can be revealed and studied through objects as well as how material things in turn shape human experience. Students learn ideas, methods, skills and practices that prepare them for careers in higher education, museums, historical societies, architecture and design, product design, advertising, historic preservation, and journalism. Another goal is to introduce a variety of professional career paths for those interested in the relationship between objects, history, and culture. Internships at local museums, historical societies, and other

organizations as well as class field trips and activities allow students to bridge the academic and professional worlds.

ADMISSIONS

Admissions to the Material Culture Studies Graduate/Professional Certificate have been suspended as of fall 2018. If you have any questions, please contact the department (arthistory@ls.wisc.edu).

REQUIREMENTS

Code	Title	Credits
ART HIST/ANTHRO/ DS/HISTORY/ LAND ARC 764	Dimensions of Material Culture	4
ART HIST 563	Proseminar in Material Culture	3
Electives ¹		9
Internship ²		1-3
Total Credits		17-19

¹ Students may take only one course in any department. Choices should be clustered around a focus. For example, one strategy is to take a range of courses related to a specific geographic area, specialization or time period. Other students may choose to pursue a cluster of courses that emphasizes nationally emerging specializations within the field of material culture including courses related to museums/exhibitions, historic preservation, archival technology or product design. Students should work with a material culture faculty member to develop this focus. Other courses can be selected as electives from traditional disciplinary approaches and content, but must be approved by the chair of the Material Culture Advisory Committee. Students must work closely with both their advisor within their home major and an advisor among material culture advisors to assure that both major and certificate requirements are fulfilled.

² Graduate students must complete a 1-3 credit internship/practicum/field experience. This is developed with a faculty member and an outside institution. Credits are determined by the scope of the internship. These credits count as elective credits. We have established internship opportunities with the State Historical Society of Wisconsin, Chipstone Foundation, and the John Michael Kohler Arts Center and are currently developing more opportunities with institutions such as the Pecatonica Foundation.

ELECTIVES COURSE LIST

Code	Title	Credits
ANTHRO 309	Prehistoric Europe	3
ANTHRO 310	Topics in Archaeology (Topic: Archaeology of South Asia OR Archaeology of Technology and Trade)	3
ANTHRO/ AMER IND 354	Archaeology of Wisconsin	3
ANTHRO/ AMER IND 355	Archaeology of Eastern North America	3
ANTHRO 370	Field Course in Archaeology	3-6

ANTHRO 490	Undergraduate Seminar (Topic: Archaeology of Migration OR Ancient Cities)	3
ANTHRO/ FOLKLORE 520	Ethnic Representations in Wisconsin	4
ANTHRO/ FOLKLORE/MUSIC/ THEATRE 539	The Folklore of Festivals and Celebrations	3
ANTHRO 696	Archaeological Methods of Curation	1-3
ANTHRO 942	Seminar-Archaeological Problems	3
ART HIST/ CLASSICS 300	The Art and Archaeology of Ancient Greece	3-4
ART HIST/ CLASSICS 304	The Art and Archaeology of Ancient Rome	3-4
ART HIST/DS 363	American Decorative Arts and Interiors: 1620-1840	3-4
ART HIST 364	History of American Art: Art, Material Culture, and Constructions of Identity, 1607-present	3-4
ART HIST 463	Topics in American Material Culture	3-4
ART HIST 468	Frank Lloyd Wright	3-4
ART HIST/ RELIG ST 478	Art and Religious Practice in Medieval Japan	3
ART HIST 479	Art and History in Africa	3-4
ART HIST 525	Proseminar in Italian Renaissance Art	3
ART HIST 579	Proseminar in African Art	3
ART HIST/ AFROAMER 802	Visual Cultures: Topics in Visual Cultures (Topic: Taste)	3
ART HIST 601	Introduction to Museum Studies I	3
ART HIST 602	Introduction to Museum Studies II	3
ART HIST 865	Seminar-American Art	3
ART HIST 875	Seminar in Japanese Art	3
CLASSICS/ ART HIST 300	The Art and Archaeology of Ancient Greece	3-4
CLASSICS/ ART HIST 304	The Art and Archaeology of Ancient Rome	3-4
CLASSICS 372	Topics in Roman Culture	1-3
CNSR SCI 470	History of Consumer Movements in the United States	3
DS 355	History of Fashion, 1400-Present	3
DS/BSE/ LAND ARC 356	Sustainable Residential Construction	3
DS 360	Global Perspectives on Design and Culture	3
DS 420	Twentieth Century Design	3
DS 421	History of Architecture and Interiors I: Antiquity through 18th Century	3
DS 422	History of Architecture & Interiors II: 19th and 20th Centuries	3
DS 430	History of Textiles	3
DS 501	Special Topics (Topic: History of Design II OR Survey of Interior Design)	1-3
DS/FOLKLORE 655	Comparative World Dress	3
DS 720	Literature of Design Theory	3

FOLKLORE 320	Folklore of Wisconsin	3
FOLKLORE 439	Foodways	3
FOLKLORE/ SCAND ST 440	Scandinavian American Folklore	3
FOLKLORE/L I S 490	Field Methods and the Public Presentation of Folklore	3
FOLKLORE/ ANTHRO 520	Ethnic Representations in Wisconsin	4
FOLKLORE/ ANTHRO/MUSIC/ THEATRE 539	The Folklore of Festivals and Celebrations	3
FOLKLORE 540	Local Culture and Identity in the Upper Midwest	3
FOLKLORE/ ANTHRO 639	Field School: Ethnography of Wisconsin Festivals	6-8
GEOG/URB R PL 305	Introduction to the City	3-4
GEOG 342	Geography of Wisconsin	3
GEOG 508	Landscape and Settlement in the North American Past	3
HISTORY/ JOURN 560	History of Mass Communication	4
HISTORY/ART HIST/ JOURN/L I S 650	History of Books and Print Culture in Europe and North America	3
HISTORY/L I S 734	Introduction to Archives and Records Management	3
HIST SCI 337	History of Technology	3
LAND ARC 675	Historic Preservation Planning Field Workshop	1-4
LAND ARC 677	Cultural Resource Preservation and Landscape History	3
MUSIC/ANTHRO/ FOLKLORE/ THEATRE 539	The Folklore of Festivals and Celebrations	3
SCAND ST/ FOLKLORE 440	Scandinavian American Folklore	3
JOURN/ HISTORY 560	History of Mass Communication	4
L I S/FOLKLORE 490	Field Methods and the Public Presentation of Folklore	3
L I S/ART HIST/ HISTORY/ JOURN 650	History of Books and Print Culture in Europe and North America	3
L I S/HISTORY 734	Introduction to Archives and Records Management	3
THEATRE 327	History of Costume for the Stage	3
THEATRE 464	Costume Technology Topics	3-4
THEATRE/ANTHRO/ FOLKLORE/ MUSIC 539	The Folklore of Festivals and Celebrations	3
THEATRE 763	Costume Design III	3

PEOPLE

Materials Studies Culture Core Faculty: Professors Martin (Art History), Schroeder (Anthropology); Associate Professors Allen (Scandinavian Studies), Andrzejewski (Art History), Aylward (Classics), Gilmore

(Landscape Architecture/Folklore Studies), Nelson (Design Studies); Assistant Professors Li (Art History), Penick (Design Studies), Pruitt (Art History).

Materials Studies Culture Affiliate Faculty: Professors Bernstein (English), Buenger (Art History), Cahill (Art History), Cook (Music), Dale (Art History), Drewal (Art History), Enstad (History), Geiger (Art History), Kenoyer (Anthropology), Leary (Folklore Studies), Loeser (Art), Nyhart (History of Science), Phillips (Art History), Vaughn (Journalism and Mass Communication); Associate Professors Chopra (Art History), Dennis (Landscape Architecture), Sacaridiz (Art), Schatzberg (History of Science); Assistant Professor Shin (Design Studies)

TRANSDISCIPLINARY STUDY OF VISUAL CULTURES, DOCTORAL MINOR

The **Doctoral Minor in the Transdisciplinary Study of Visual Cultures** is intended for Ph.D. students from across the university who desire training in the study of visual cultures. This transdisciplinary field analyzes the social construction of the visual as well as how the visual creates our social world. Visual culture studies differs from other related disciplines in two ways: first, its field of inquiry includes an expansive array of visual cultural artifacts and practices; and, second, its methodologies focus on the constitution of power relations through visual markers of race, gender, disability, and nationality. As the world continues to become increasingly understood through, and reliant on, the visual (the internet, films, television, scientific graphs, data visualization, video games, and advertisements), the need for people trained with the ability to critically interpret, create, and evaluate those mediums is essential.

REQUIREMENTS

The Ph.D. minor in the transdisciplinary study of visual cultures is research-driven. Selection of courses should contribute to the development of your primary area of specialization. The minor is awarded upon successful completion of 9 graduate-level credits in a combination of required and elective coursework, with a GPA of 3.0 (4.0 basis). Required coursework consists of ART HIST/AFROAMER 801 Historiography, Theory and Methods in Visual Culture; ART HIST/AFROAMER 802 Visual Cultures: Topics in Visual Cultures, or equivalent. Elective coursework consists of one 3-credit course to be selected, in consultation with a program faculty advisor, from a wide range of crosslisted and “meets with” courses offered by program faculty in numerous programs and departments. A list of possible course options are available on the CVC website (<https://cvc.wisc.edu/courses>), although it is not exhaustive. Please, note that even if a course is listed on the website it is not a guarantee that it will receive program credit. Please consult with the director of the CVC to ensure that your selected courses meet criteria for credit.

Code	Title	Credits
Required:		
ART HIST/ AFROAMER 801	Historiography, Theory and Methods in Visual Culture	3
ART HIST/ AFROAMER 802	Visual Cultures: Topics in Visual Cultures (or equivalent) ¹	3
Electives:		
		3

Elective coursework consists of at least one 3-credit course to be selected, in consultation with a program faculty advisor, from a wide range of crosslisted and “meets with” courses offered by program faculty in numerous programs and departments. Following is a list of current or recent courses:

ART HIST 355	History of Photography	3
AFROAMER/ GEN&WS 679	Visual Culture, Gender and Critical Race Theory	3
ART HIST 440	Art and Power in the Arab World	3
GEN&WS 371	Disability and Gender in Film	3
GEOG 501	Space and Place: A Geography of Experience	3
E ASIAN 376	Manga.	3
DS 642	Taste	3
COM ARTS 451	Television Criticism	3
LCA/ART HIST 428	Visual Cultures of South Asia	3
ART HIST 506	Curatorial Studies Exhibition Practice	3
SPANISH 564	Theory and Practice of Hispanic Theatre	4
ART HIST 354	Cross-Cultural Arts Around the Atlantic Rim: 1800 to the Present	3-4
GEN&WS 372	Visualizing Bodies	3
ART HIST 879	Seminar in African Art	3
LCA/ART HIST 621	Mapping, Making, and Representing Colonial Spaces	3
ART HIST 430	Topics in Visual Culture	3
AFROAMER/ GEN&WS 367	Art and Visual Culture: Women of the African Diaspora and Africa	3
GEN&WS 449	Special Topics in Feminism and Social and Cultural Theory	3
COM ARTS 540	Television Genres	3
ART 908	Seminar-Art	3
COM ARTS 468	Producing for Internet TV and Video	3

¹ This course can be substituted with any other graduate topics course in visual culture in consultation with the CVC Director.

PEOPLE

CVC DIRECTOR

Guillermina De Ferrari (Spanish and Portuguese)

STEERING COMMITTEE 2017 - 2018

- Faisal Abdu'Allah (Art)
- Johanna Almiron (Afro-American Studies)
- Jill Casid (Visual Culture/Art History)
- Paola Hernández (Spanish and Portuguese)
- Eric Hoyt (Media and Cultural Studies/Communication Arts)
- Adam Kern (Visual Culture/East Asian Languages & Literature)
- Michael Jay McClure (Art History)
- Keith Woodward (Geography)
- Amy Gaeta (Student Liaison)

PROGRAM ASSISTANT:

Jessica A. Cooley (Art History)

A list of affiliate faculty may be found here (<https://cvc.wisc.edu/people/affiliate-faculty>).

TRANSDISCIPLINARY STUDY OF VISUAL CULTURES, GRADUATE/ PROFESSIONAL CERTIFICATE

The Graduate/Professional Certificate in the Transdisciplinary Study of Visual Cultures is intended for master's degree students (usually MFA and terminal M.A. candidates) from across the university who desire training in the study of visual cultures. This transdisciplinary field analyzes the social construction of the visual as well as how the visual creates our social world. Visual culture studies differs from other related disciplines in two ways: first, its field of inquiry includes an expansive array of visual cultural artifacts and practices; and, second, its methodologies focus on the constitution of power relations through visual markers of race, gender, disability, and nationality. As the world continues to become increasingly understood through, and reliant on, the visual (the internet, films, television, scientific graphs, data visualization, video games, and advertisements), the need for people trained with the ability to critically interpret, create, and evaluate those mediums is essential.

REQUIREMENTS

The Graduate/Professional Certificate in the Transdisciplinary Study of Visual Cultures is a research-driven certificate. Selection of courses should contribute to your professional development. The certificate is awarded upon successful completion of 9 graduate-level credits in a combination of required and elective coursework, with a GPA of 3.0 (4.0 basis). Required coursework consists of ART HIST/AFROAMER 801 Historiography, Theory and Methods in Visual Culture; ART HIST/AFROAMER 802 Visual Cultures: Topics in Visual Cultures, or equivalent. Elective coursework consists of one 3-credit course to be selected, in consultation with a program faculty advisor, from a wide range of crosslisted and “meets with” courses offered by program faculty in numerous programs and departments. A list of possible course options are available on the CVC website (<https://cvc.wisc.edu/courses>), although it is not exhaustive. Please note that even if a course is listed on the website it is not a guarantee that it will receive program credit. Please consult with the director of the CVC to ensure that your selected courses meet criteria for credit.

Code	Title	Credits
Required:		
ART HIST/ AFROAMER 801	Historiography, Theory and Methods in Visual Culture	3
ART HIST/ AFROAMER 802	Visual Cultures: Topics in Visual Cultures (or equivalent) ¹	3
Electives:		

Elective coursework consists of at least one 3-credit course to be selected, in consultation with a program faculty advisor, from a wide range of crosslisted and “meets with” courses offered by program faculty in numerous programs and departments. Following is a list of current or recent courses:

ART HIST 355	History of Photography	3
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GEN&WS 371	Disability and Gender in Film	3
GEOG 501	Space and Place: A Geography of Experience	3
E ASIAN 376	Manga.	3
DS 642	Taste	3
COM ARTS 451	Television Criticism	3
ART HIST/LCA 428	Visual Cultures of South Asia	3
ART HIST 506	Curatorial Studies Exhibition Practice	3
SPANISH 564	Theory and Practice of Hispanic Theatre	4
ART HIST 354	Cross-Cultural Arts Around the Atlantic Rim: 1800 to the Present	3-4
ART HIST 879	Seminar in African Art	3
ART HIST/LCA 621	Mapping, Making, and Representing Colonial Spaces	3
GEN&WS 372	Visualizing Bodies	3
ART HIST 430	Topics in Visual Culture	3
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GEN&WS 449	Special Topics in Feminism and Social and Cultural Theory	3
COM ARTS 540	Television Genres	3
ART 908	Seminar-Art	3
COM ARTS 468	Producing for Internet TV and Video	3

¹ This course can be substituted with any other graduate topics course in visual culture in consultation with the CVC Director.

LEARNING OUTCOMES

1. Understand the history, methodology, and potentials of Visual Culture as a field of study including cultural studies, art theory, and theoretical frameworks as they are practiced in the field of Visual Cultures.
2. Have ability to discuss concepts, ideas, and theoretical questions in a clear and understandable manner when engaging both specialized audiences and the wider community.
3. Develop theoretically informed critical methodologies for the analysis and interpretation of visual culture, literary texts, and cultural formations.
4. Develop archival research skills and other evidence-gathering techniques with the aim of furthering historical and cultural knowledge of specific fields.

5. Develop critical writing skills necessary for constructing cogent and original arguments following protocols consistent with existing scholarship in visual cultures.

PEOPLE

CVC DIRECTOR

Guillermina De Ferrari (Spanish and Portuguese)

STEERING COMMITTEE 2017 - 2018

- Faisal Abdu'Allah (Art)
- Johanna Almiron (Afro-American Studies)
- Jill Casid (Visual Culture/Art History)
- Paola Hernández (Spanish and Portuguese)
- Eric Hoyt (Media and Cultural Studies/Communication Arts)
- Adam Kern (Visual Culture/East Asian Languages & Literature)
- Michael Jay McClure (Art History)
- Keith Woodward (Geography)
- Amy Gaeta (Student Liaison)

PROGRAM ASSISTANT:

Jessica A. Cooley (Art History)

A list of affiliate faculty may be found here (<https://cvc.wisc.edu/people/affiliate-faculty>).

ASIAN LANGUAGES AND CULTURES

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE PROFESSIONAL/CERTIFICATES

- Asian Languages and Cultures, Doctoral Minor (p. 119)
- Asian Languages and Cultures, M.A. (p. 120)
- Asian Languages and Cultures, Ph.D. (p. 125)
- Chinese, Doctoral Minor (p. 129)
- Chinese, M.A. (p. 130)
- Chinese, Ph.D. (p. 134)
- Japanese, Doctoral Minor (p. 138)
- Japanese, M.A. (p. 139)
- Japanese, Ph.D. (p. 143)

PEOPLE

FACULTY

Professors Bühnemann, Dunne, Huang, Huntington, Kern, McGloin, Mori (chair), Nienhauser, Zhang; Associate Professors Cerulli, D'Etcheverry, Geyer, Lim, Meulenbeld, Ridgely; Assistant Professors Yang, Zhu (Diversity Liaison); Faculty Associate Barnard, Nakakubo

EAST ASIA

Charo D'Etcheverry (<http://alc.wisc.edu/about/faculty/charo-detcheverry>) (Associate Professor). Area: Classical Japanese Literature

Naomi Geyer (<http://alc.wisc.edu/about/faculty/naomi-geyer>) (Associate Professor). Area: Japanese Language

Nicole Huang (<http://alc.wisc.edu/about/faculty/nicole-huang>) (Professor). Area: Transcultural East Asia; 20th century Chinese and Taiwanese Literature

Rania Huntington (<http://alc.wisc.edu/about/faculty/rania-huntington>) (Professor). Area: Ming and Qing Narrative and Drama, Chinese Literature of the weird and supernatural

Adam L. Kern (<http://alc.wisc.edu/about/faculty/adam-l-kern>) (Professor). Area: Popular Literature, Culture, Poetry, Theater, and Visual Culture of early modern-modern Japan.

Byung-jin Lim (<http://alc.wisc.edu/about/faculty/byung-jin-lim>) (Associate Professor). Area: Korean Language and Linguistics, Second / Foreign Language Acquisition, Korean Language Textbook Development

Naomi McGloin (<http://alc.wisc.edu/about/faculty/naomi-mcgloin>) (Professor). Area: Japanese Language and Linguistics

Mark Meulenbeld (<http://alc.wisc.edu/about/faculty/william-nienhauser>) (Associate Professor). Area: Daoism, Chinese Religion and Literature

Junko Mori (<http://alc.wisc.edu/about/faculty/steve-ridgely>) (Professor). Area: Japanese Linguistics, Applied Linguistics, Sociolinguistics

Takako Nakakubo (<http://alc.wisc.edu/about/faculty/takako-nakakubo>) (Faculty Associate). Area: Second Language Acquisition of Japanese, Japanese Pedagogy

William Nienhauser (<http://alc.wisc.edu/about/faculty/william-nienhauser>) (Professor). Area: Early Traditional Chinese Fiction and History; early poetry (Du Fu and Tao Qian)

Steve Ridgely (<http://alc.wisc.edu/about/faculty/steve-ridgely>) (Associate Professor). Area: Modern Japanese Literature, Pop culture, TransAsian studies

Bei Yang (<http://alc.wisc.edu/about/faculty/bei-yang>) (Assistant Professor). Area: Second Language Acquisition, Chinese Languages and Linguistics

Hongming Zhang (<http://alc.wisc.edu/about/faculty/hongming-zhang>) (Professor). Area: Chinese Linguistics; History of Chinese Language; Teaching Chinese as a Second Language

Weihua Zhu (<http://alc.wisc.edu/about/faculty/weihua-zhu>) (Assistant Professor). Area: Chinese Language, Pedagogy and Second Language Acquisition

SOUTH ASIA

Gudrun Bühnemann (<http://alc.wisc.edu/about/faculty/gudrun-b%C3%BChnemann>) (Professor). Area: Sanskrit Language and Literature; Buddhism in India and Nepal; Hinduism; Tantrism; Yoga Studies

Anthony Cerulli (<http://alc.wisc.edu/about/faculty/anthony-cerulli>) (Associate Professor). Area: Theory and Method in the Study of Religion in South Asia; History of Medicine in India; Sanskrit Language and Literature; Kerala History and Culture; Malayalam Language.

John D. Dunne (<http://alc.wisc.edu/about/faculty/john-d-dunne>) (Professor). Area: Buddhist Philosophy and Contemplative Practice; Religious Studies; Cognitive Science of Religion

SOUTHEAST ASIA

Erlin Barnard (<http://alc.wisc.edu/about/faculty/erlin-barnard>) (Faculty Associate) Area: Indonesian Language, Language Pedagogy; Materials Development; Second Language Acquisition

LANGUAGE INSTRUCTORS

Language instructors (<http://alc.wisc.edu/about/language-instructors>) are an integral part of our department, teaching more than 14 languages during the academic year from East (Chinese, Japanese, Korean), South (Hindi, Persian, Sanskrit, Tibetan, Urdu), Southeast (Burmese, Filipino, Hmong, Indonesian, Thai, Vietnamese) Asian Languages.

GRADUATE ADVISOR

Undergraduate Advisor:
email Rachel Weiss (rweiss@wisc.edu)
1244 Van Hise Hall
608-890-0138

ASIAN LANGUAGES AND CULTURES, DOCTORAL MINOR

REQUIREMENTS

Students in other departments who wish to minor in Asian languages and cultures must complete 12 credits above the 300 level with a cumulative GPA of 3.0 in the department. Such students are required to take one course in literature and one course in religion or philosophy. Any other courses to fulfill the minor requirement are selected in prior consultation with the student's faculty advisor, who is designated as such by the Department of Asian Languages and Cultures and is authorized to sign the doctoral minor agreement form.

Courses cross-listed in a student's major department and in Asian Languages and Cultures do not count toward the minor requirement. Elementary and intermediate language courses or "directed study" courses are not accepted toward the fulfillment of the minor requirement in languages and cultures of Asia.

PEOPLE

FACULTY

Asian Languages and Cultures is home to nearly twenty faculty whose research and teaching specialties range from traditional medicine in India, the Hinduist roots of yoga, or diversifying contemporary mindfulness practice with insights from Tibetan Buddhism, to human rights in Thailand - from Chinese ghost stories, traditional poetics and philology, to sociolinguistics and discourse analysis of the Mandarin, Japanese, Korean, Indonesian languages - and from analysis of classical Japanese tale fiction, early modern comedic narratives, manga, anime, and Japanese counterculture. Visit our faculty pages (<https://alc.wisc.edu/about/faculty>) for more information on areas of expertise, current research, teaching and publications.

Erlin Barnard
esbarnard@wisc.edu
Faculty Associate

Fields of Study: Language Pedagogy; Materials Development; Second Language Acquisition

Gudrun Bühnemann
gbuhnema@wisc.edu
Professor

Fields of Study: Sanskrit language and literature; Buddhism in India and Nepal; Hinduism; Tantrism and Yoga Studies

Anthony Cerulli
acerulli@wisc.edu
Associate Professor

Fields of Study: Hinduism; Religion in South Asia; Medical Humanities; History of Medicine in India; Sanskrit Language and Literature; Kerala History and Culture

Charo D'Etcheverry
csetcheverry@wisc.edu
Associate Professor

Fields of Study: Classical Japanese literature (especially court fiction & its reception and early kabuki)

John D. Dunne
jddunne@wisc.edu
Professor

Fields of Study: Buddhist philosophy and contemplative practice; Religious Studies; Cognitive Science of Religion; Contemplative Science

Naomi Geyer
nfgeyer@wisc.edu
Associate Professor

Fields of Study: Japanese Language, Language Pedagogy, Pragmatics

Tyrell Haberkorn
Associate Professor

Fields of Study: Violence, Human Rights, Sovereignty, Arbitrary Detention, Land Rights, Agrarian Struggle, Historiographies of Repression, Gender Studies, Socialism, Dissident Literature, Southeast Asia (Thailand).

Rania Huntington
huntington@wisc.edu
Professor

Fields of Study: Ming and Qing narrative and drama, literature of the weird and supernatural, memory in literature, depiction of women in literature

Adam L. Kern
alkern@wisc.edu
Professor

Fields of Study: The popular literature, culture, poetry, theater, and visual culture of early modern unto modern Japan (1600-1900). Transcultural comics in Japan (manga, kibyōshi, etc) and beyond.

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jmori@wisc.edu
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Fields of Study: Japanese Linguistics, Applied Linguistics, Conversation Analysis, Sociolinguistics

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Fields of Study: Second Language Acquisition of Japanese, Japanese Pedagogy, Learning Strategies

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whnienha@wisc.edu
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Associate Professor

Fields of Study: Modern Japanese literature, Cultural Theory, Transasian Studies

Hongming Zhang
hzhang6@wisc.edu
Professor

Fields of Study: Chinese linguistics; syntax-phonology interface; prosodic phonology; poetic prosody; history of Chinese language; teaching Chinese as a second language

Weihua Zhu
wzhu34@wisc.edu (wzhu34@wisc.edu)
Assistant Professor

Fields of Study: Discourse Analysis, Pragmatics, Pedagogy and Second Language Acquisition

ASIAN LANGUAGES AND CULTURES, M.A.

The Department of Asian Languages and Cultures offers new interdisciplinary M.A. and Ph.D. programs. Students may design their own courses of study that take advantage of the many opportunities on campus to do in-depth research on Asia from multiple disciplinary perspectives and across the traditional area studies divisions of East, South, and Southeast Asia. Students may also choose to focus their studies in a thematic track, such as: Asian religions; Asian medical and health humanities; and Asian rights, violence, and law. Initially working with two co-advisors, each student will craft a program of coursework that combines Asia-focused courses with disciplinary study in and beyond the Department of Asian Languages and Cultures. This may include linkages with other departments as well as UW–Madison's rich array of centers and programs, including the Center for Healthy Minds (<https://centerhealthyminds.org>), Center for Visual Cultures (<https://cvc.wisc.edu>), Human Rights Program (http://law.wisc.edu/gls/human_rights.html), Religious Studies Program (<http://religioustudies.lss.wisc.edu>), Center for East Asian Studies (<https://eastasia.wisc.edu>), Center for South Asia (<http://southasia.wisc.edu>), and Center for Southeast Asian Studies (<http://seasia.wisc.edu>).

We welcome applications from a wide range of students compelled to work transregionally, transdisciplinarily, or both. This includes students with a traditional background in Asian Studies and related academic fields as well as practitioners whose path to studying Asia has been through professional work.

The Department of Asian Languages and Cultures anticipates the formation of a lively intellectual community around Transasian studies and looks forward to supporting student-led seminars, reading groups, workshops and other events.

ADMISSIONS

Thank you for your interest in our programs. The Department of Asian Languages and Cultures (ALC) offers a graduate program in Asian Languages and Cultures (<https://alc.wisc.edu/graduate-programs/asian-languages-and-cultures>), Chinese (<https://alc.wisc.edu/graduate-programs/chinese>) and Japanese (<https://alc.wisc.edu/graduate-programs/japanese>).

Prior to submitting application and materials, applicants should carefully review the information regarding the program of interest and the faculty's expertise (<https://alc.wisc.edu/about/faculty>) to determine the fit between their interest and the program. To this extent, prospective applicants may contact a specific faculty to discuss their research interest prior to submitting applications.

Applicants should also review the Graduate School's admission process (<http://guide.wisc.edu/graduate/asian-languages-cultures/asian-languages-cultures-ma/%20https://grad.wisc.edu/apply>), Graduate School's minimum requirements (<http://grad.wisc.edu/admissions/requirements>), and program requirements and information prior to submitting the online application and fee. The application fee cannot be waived or refunded.

DEADLINES

We accept applications for the fall term only.

In order to be considered for fellowships, project assistantships, and teaching assistantships (<https://alc.wisc.edu/graduate-programs/costs>), all application materials must be in **by January 10**.

If you do not need any funding support, you may submit applications **by April 15**.

APPLICATION PROCESS

New applicants to UW-Madison apply to programs through the Graduate School application process. Complete the online Graduate application (<https://apply.grad.wisc.edu/Account/Login?ReturnUrl=%2f>) and select the Asian Languages and Cultures (major code 596) or Chinese (major code 171) or Japanese (major code 583) program.

If you are a currently enrolled UW-Madison graduate student and would like to add or change your current graduate program to Asian Languages and Cultures, Chinese, or Japanese, you do not need to fill out the online application. You will need to submit the following to the ALC Graduate Program Coordinator (1244 Van Hise):

- ALC Departmental Application form (https://alc.wisc.edu/sites/alc.wisc.edu/files/ALC%20Departmental%20Application_internal2017.pdf)
- Grad School "Add/Change Program (<https://grad.wisc.edu/documents/change-program>)" form (click on link and look for form in the "Academic Forms" box)
- Letters of recommendation
- CV or Resume

- Statement of purpose

The applications from current UW–Madison graduate students will be reviewed every spring, together with new applications submitted.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Students applying to the Department of Asian Languages and Culture and students currently enrolled in the department may apply for fellowship support. Most fellowships are handled through the department. However, some are available through sources outside of the department and have different application procedures.

Graduate Studies Costs

For tuition and living costs, please view the Cost of Graduate School page (<http://grad.wisc.edu/admissions/cost>). International applicants recommended for admission to the Graduate School are required to show sufficient funds to attend the University during the course of studies (tuition, food and housing, incidentals and health insurance) to be officially accepted by the Graduate School.

Financial Assistance

Our department offers financial assistance in the forms of fellowships, teaching assistantships (TAships), and project assistantships (PAships).

These positions are highly competitive as applicants are competing against other applicants across the department, and across campus in some cases. **Please make note of the deadline of January 10 for financial assistance consideration.** All necessary materials including test scores must be submitted by the deadline.

If you are an international applicant and receive a fellowship, PAship or TAship, please make note that you will likely be required to show additional financial documentation to meet the minimum required for your official acceptance to the Graduate School.

Fellowships. Students applying to the Department of Asian Languages and Culture and students currently enrolled in the department may apply for fellowship support. Most fellowships are handled through the department. However, some are available through sources outside of the department and have different application procedures. Some examples are as follows:

- **Foreign Language & Area Studies (FLAS) Fellowships:** FLAS fellowships are funded by the U.S. Department of Education and administered by the UW's National Resource Centers to assist

students in acquiring foreign language and either area or international studies competencies. FLAS awards are only available for specific languages (<https://flas.wisc.edu/Languages.html>), and are contingent on federal funding.

Applicants must be U.S. citizens or permanent residents of the United States. Applications by students in professional fields are encouraged. Preference will be given to applicants with a high level of academic ability and with previous language training. Academic Year and Summer FLAS awards are **two separate competitions** requiring **two separate and complete applications**. Complete details about FLAS at UW-Madison are available on the FLAS FAQs (<https://flas.wisc.edu/FAQS.html>) (your first stop) and the FLAS Languages & Coordinators (<https://flas.wisc.edu/Languages.html>) pages (should you have additional questions).

- **Advanced Opportunity Fellowship (AOF):** This fellowship is awarded to highly qualified underrepresented students. To be considered for AOF funding, prospective students must be new to the Graduate School and be admissible to a graduate program at the University of Wisconsin-Madison. For further information: <https://grad.wisc.edu/diversity/oeid/>

Project Assistantships. Availabilities of PAship vary from one year to another, depends on the types of projects the departmental faculty are engaged in. PAs assist faculty members' research projects and/or respond to some programmatic needs of the department and other campus units.

Teaching Assistantships. Availabilities and types of TAship vary from one year to another, depending on the department's curricular needs and the student enrollment. TAs will support a number of our language and culture courses, typically team-teaching with faculty members. If you are interested in being a teaching assistant in our language programs, you must submit the TA application and necessary materials through the Graduate School application system **by January 10**.

Other Forms of Financial Aid: Loans and some on-campus job openings are handled through the Student Financial Services Office (<https://financialaid.wisc.edu>). Please contact them to obtain more information

Please also refer to the Graduate School's Funding Information for New and Current Graduate Students (<https://grad.wisc.edu/studentfunding/currentstudents>) page for additional information.

Students may also obtain information from the Grants Information Center (<https://www.library.wisc.edu/memorial/collections/grants-information-collection>) in the Memorial Library, Room 262, 728 State Street, Madison, WI 53706. Phone 608-262-3242.

If you encounter questions or difficulties with the application process, please contact the Graduate Coordinator at rweiss@wisc.edu.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements Students must earn a B or above in all coursework (300 or Requirements above, not including research credits) taken as a graduate student.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

Assessments and Examinations There are two possible exit requirements for the M.A. One of the following two options will be chosen in consultation with the advisors.

Students should select two substantially revised and/or expanded research papers completed during their graduate study to submit to their committee (the advisors and one additional faculty member). In addition to the written papers, an oral presentation of these papers to the committee is required.

Or

An approximately 50-page M.A. thesis. In addition to the written thesis, an oral presentation of the thesis to the committee is required. This option is usually appropriate for a student who wishes to continue in the Ph.D. program.

Language Requirements Six semesters of study of an Asian language or four semesters of study of two Asian languages, or the equivalent level of proficiency as established by examination by department faculty and staff. Additional language study may be required by the advisors.

REQUIRED COURSES

- At least 21 credits in Asia-related graduate courses in the department or elsewhere on campus.
- At most 9 credits of other graduate courses as approved by the advisors.
- Language study at the third-year level and beyond can count toward the total degree credits to a maximum of 12 credits.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 9 credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree or earned ten years is not allowed to satisfy requirements.

UW-Madison Undergraduate

With program approval, no more than 7 credits of graduate coursework (as defined above) completed while a UW-Madison undergraduate maybe counted to satisfy degree requirements. Coursework earned five or more years prior

to admission to a master's degree is not allowed to satisfy requirements.

UW-Madison University Special

With program approval, students are allowed to count no more than 9 credits of coursework numbered 300 or above taken as a UW-Madison University Special student. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

If a student's average falls below 3.0 in a given semester, the department will decide whether the student may continue on probation. A specific plan will be arranged with dates and deadlines in place in regard to removal of probationary status.

ADVISOR / COMMITTEE

Starting Fall 2018, all students are required to have two co-advisors, identified at the time of admissions. During the course of study, students meet regularly with their advisors to ensure satisfactory progress.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

The maximum time for completing all M.A. requirements and passing the M.A. examination is three years.

Master's degree students who are absent for five or more years will not be given credit for prior work.

OTHER

The program offers limited financial assistance in the form of fellowships and teaching assistantships to candidates who are highly qualified. Applicants should consult the program website for selection criteria and application materials for assistantships.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

The Graduate School Office of Professional Development (OPD) coordinates, develops, and promotes learning opportunities to foster the academic, professional, and life skills of graduate students and postdoctoral researchers and scholars.

Professional development topics include Individual Development Plans (<https://grad.wisc.edu/pd/idp>), communication, mentoring, grant writing, dissertation writing, career exploration, job search strategies, and more. OPD collaborates with the Writing Center, Libraries, DoIT Software Training for Students, Delta, career centers, and others to provide a

wealth of resources and events tailored to the needs of UW–Madison graduate students.

The office developed and maintains DiscoverPD (<https://my.grad.wisc.edu/DiscoverPD>), an innovative tool for UW-Madison graduate students to advance their academic and professional goals.

DiscoverPD introduces nine areas (or "facets") of professional development, includes a self-assessment, and provides a customized report of areas of strength and weakness. The report comes with recommendations to help graduate students strengthen their ability within each area.

More information on campus resources for student professional development is available at Graduate Student Professional Development (<http://grad.wisc.edu/pd>). Students may keep up-to-date by reading GradConnections (<https://grad.wisc.edu/new-students>), the weekly newsletter for graduate students, and bookmarking the Events Calendar (<https://grad.wisc.edu/events>) to keep tabs on upcoming workshops of interest.

LEARNING OUTCOMES

1. Demonstrate understanding of the primary field(s) of study in a historical, comparative, and global context.
2. Demonstrate understanding of the major theories, research methods, and approaches to inquiry in the selected area of the student's focus.
3. Demonstrate ability to integrate theories into practice.
4. Demonstrate ability to articulate and communicate knowledge in specialized field(s).
5. Recognize and apply principles of professional and ethical conduct.

PEOPLE

FACULTY

Asian Languages and Cultures is home to nearly twenty faculty whose research and teaching specialties range from traditional medicine in India, the Hinduist roots of yoga, or diversifying contemporary mindfulness practice with insights from Tibetan Buddhism, to human rights in Thailand - from Chinese ghost stories, traditional poetics and philology, to sociolinguistics and discourse analysis of the Mandarin, Japanese, Korean, Indonesian languages - and from analysis of classical Japanese tale fiction, early modern comedic narratives, manga, anime, and Japanese counterculture. Visit our faculty pages (<https://alc.wisc.edu/about/faculty>) for more information on areas of expertise, current research, teaching and publications.

Erlin Barnard

esbarnard@wisc.edu

Faculty Associate

Fields of Study: Language Pedagogy; Materials Development; Second Language Acquisition

Gudrun Bühnemann

gbuhnema@wisc.edu

Professor

Fields of Study: Sanskrit language and literature; Buddhism in India and Nepal; Hinduism; Tantrism and Yoga Studies

Anthony Cerulli

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Associate Professor

Fields of Study: Hinduism; Religion in South Asia; Medical Humanities; History of Medicine in India; Sanskrit Language and Literature; Kerala History and Culture

Charo D'Etcheverry

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Associate Professor

Fields of Study: Classical Japanese literature (especially court fiction & its reception and early kabuki)

John D. Dunne

jddunne@wisc.edu

Professor

Fields of Study: Buddhist philosophy and contemplative practice; Religious Studies; Cognitive Science of Religion; Contemplative Science

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Associate Professor

Fields of Study: Japanese Language, Language Pedagogy, Pragmatics

Tyrell Haberkorn

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Fields of Study: Violence, Human Rights, Sovereignty, Arbitrary Detention, Land Rights, Agrarian Struggle, Historiographies of Repression, Gender Studies, Socialism, Dissident Literature, Southeast Asia (Thailand).

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Professor

Fields of Study: Ming and Qing narrative and drama, literature of the weird and supernatural, memory in literature, depiction of women in literature

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Professor

Fields of Study: The popular literature, culture, poetry, theater, and visual culture of early modern unto modern Japan (1600-1900). Transcultural comics in Japan (manga, kibyōshi, etc) and beyond.

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Associate Professor

Fields of Study: Korean Language and Linguistics, Second/Foreign Language Acquisition, Computer-Mediated Communication, Korean Language Textbook Development

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jmori@wisc.edu

Professor

Fields of Study: Japanese Linguistics, Applied Linguistics, Conversation Analysis, Sociolinguistics

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Fields of Study: Second Language Acquisition of Japanese, Japanese Pedagogy, Learning Strategies

William Nienhauser

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Fields of Study: Modern Japanese literature, Cultural Theory, Transasian Studies

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Fields of Study: Chinese linguistics; syntax-phonology interface; prosodic phonology; poetic prosody; history of Chinese language; teaching Chinese as a second language

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Assistant Professor

Fields of Study: Discourse Analysis, Pragmatics, Pedagogy and Second Language Acquisition

ASIAN LANGUAGES AND CULTURES, PH.D.

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ADMISSIONS

Thank you for your interest in our programs. The Department of Asian Languages and Cultures (ALC) offers a graduate program in Asian

Languages and Cultures (<https://alc.wisc.edu/graduate-programs/asian-languages-and-cultures>), Chinese (<https://alc.wisc.edu/graduate-programs/chinese>) and Japanese (<https://alc.wisc.edu/graduate-programs/japanese>).

Prior to submitting application and materials, applicants should carefully review the information regarding the program of interest and the faculty’s expertise (<https://alc.wisc.edu/about/faculty>) to determine the fit between their interest and the program. To this extent, prospective applicants may contact a specific faculty to discuss their research interest prior to submitting applications.

Applicants should also review the Graduate School’s admission process (<http://guide.wisc.edu/graduate/asian-languages-cultures/asian-languages-cultures-phd/%20https://grad.wisc.edu/apply>), Graduate School’s minimum requirements (<http://grad.wisc.edu/admissions/requirements>), and program requirements and information prior to submitting the online application and fee. The application fee cannot be waived or refunded.

DEADLINES

We accept applications for the fall term only.

In order to be considered for fellowships, project assistantships, and teaching assistantships (<https://alc.wisc.edu/graduate-programs/costs>), all application materials must be in **by January 10**.

If you do not need any funding support, you may submit applications **by April 15**.

APPLICATION PROCESS

New applicants to UW-Madison apply to programs through the Graduate School application process. Complete the online Graduate application (<https://apply.grad.wisc.edu/Account/Login?ReturnUrl=%2f>) and select the Asian Languages and Cultures (major code 596) or Chinese (major code 171) or Japanese (major code 583) program.

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- ALC Departmental Application form (https://alc.wisc.edu/sites/alc.wisc.edu/files/ALC%20Departmental%20Application_internal2017.pdf)
- Grad School "Add/Change Program (<https://grad.wisc.edu/documents/change-program>)" form (click on link and look for form in the "Academic Forms" box)
- Letters of recommendation
- CV or Resume
- Statement of purpose

The applications from current UW–Madison graduate students will be reviewed every spring, together with new applications submitted.

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Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have

researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Students applying to the Department of Asian Languages and Culture and students currently enrolled in the department may apply for fellowship support. Most fellowships are handled through the department. However, some are available through sources outside of the department and have different application procedures.

Graduate Studies Costs

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Our department offers financial assistance in the forms of fellowships, teaching assistantships (TAs), and project assistantships (PAs).

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- **Foreign Language & Area Studies (FLAS) Fellowships:** FLAS fellowships are funded by the U.S. Department of Education and administered by the UW's National Resource Centers to assist students in acquiring foreign language and either area or international studies competencies. FLAS awards are only available for specific languages (<https://flas.wisc.edu/Languages.html>), and are contingent on federal funding. Applicants must be U.S. citizens or permanent residents of the United States. Applications by students in professional fields are encouraged. Preference will be given to applicants with a high level of academic ability and with previous language training.

Academic Year and Summer FLAS awards are **two separate competitions** requiring **two separate and complete applications**. Complete details about FLAS at UW-Madison are available on the FLAS FAQs (<https://flas.wisc.edu/FAQS.html>) (your first stop) and the FLAS Languages & Coordinators (<https://flas.wisc.edu/Languages.html>) pages (should you have additional questions).

- **Advanced Opportunity Fellowship (AOF):** This fellowship is awarded to highly qualified underrepresented students. To be considered for AOF funding, prospective students must be new to the Graduate School and be admissible to a graduate program at the University of Wisconsin-Madison. For further information: <https://grad.wisc.edu/diversity/oeid/>

Project Assistantships. Availabilities of PAship vary from one year to another, depends on the types of projects the departmental faculty are engaged in. PAs assist faculty members' research projects and/or respond to some programmatic needs of the department and other campus units.

Teaching Assistantships. Availabilities and types of TAship vary from one year to another, depending on the department's curricular needs and the student enrollment. TAs will support a number of our language and culture courses, typically team-teaching with faculty members. If you are interested in being a teaching assistant in our language programs, you must submit the TA application and necessary materials through the Graduate School application system **by January 10**.

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If you encounter questions or difficulties with the application process, please contact the Graduate Coordinator at rweiss@wisc.edu.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 51 credits

Minimum Residence Credit Requirement 32 credits

Minimum Graduate Coursework Requirement All 51 credits must be in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements No other specific grade requirements.

Assessments and Examinations The preliminary exam must be taken within 1 semester after completing doctoral coursework. Comprehensive written preliminary exams will be based on reading lists developed with the committee. These exams have four parts: general competence in major field; secondary field; theory and method; and specialized area of dissertation focus. The preliminary examination will be evaluated by a committee of at least three members (the co-advisors and an additional faculty member).

Successful completion of the exam process will also require research language competence as demonstrated through examinations in one or more languages as determined by the advisors.

A dissertation proposal must be approved within 1 year after completing prelim exams. An oral defense of the proposal will be evaluated by the committee.

Language Requirements Additional language coursework beyond the M.A. requirements is not required in general, but students must gain sufficient competence to pass the research language exams required by the advisors.

Doctoral Minor/Breadth Requirements A doctoral minor is not a requirement, but a student, in consultation with their advisors, may choose to complete a minor.

Required Courses

- At least 15 credits in Asia-related graduate courses in the department or elsewhere on campus
- At most 6 credits of other courses as approved by the advisors
- Additional language coursework beyond the M.A. requirements is not required in general, but students must gain sufficient competence to pass the research language exams required by the advisors. Language study at the third year level and beyond can count toward the total degree credits to a maximum of 6 credits past the M.A.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 9 credits of graduate coursework from other institutions. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

With program approval, no more than 7 credits of graduate coursework (as defined above) completed while a UW–Madison undergraduate maybe counted to satisfy degree requirements. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison University Special

With program approval, students are allowed to count no more than 9 credits of graduate coursework (as defined above) taken as a UW–Madison special student. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

PROBATION

A semester GPA below 3.0 will result in the student being placed on department probation. If a semester GPA of 3.0 is not attained during the subsequent semester of enrollment, the student may be dismissed from the program or allowed to continue for one

additional semester based on advisor appeal to the Graduate School.

ADVISOR / COMMITTEE

Starting fall 2018, all students are required to be supervised by co-advisors. One of the co-advisors must be a member of the Japanese program, but the other co-advisor can be identified from related fields outside of the Japanese program.

At the point of beginning work on the dissertation, a single dissertation advisor (most likely one of the co-advisors) may be chosen, or the co-advising arrangement may continue for the dissertation as well.

Dissertation committees must have at least four members representing more than one graduate program, three of whom must be UW–Madison graduate faculty or former UW–Madison graduate faculty up to one year after resignation or retirement. At least one of the four members must be from outside of the student's major program or major field (often from the minor field).

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be considered to not be in good standing with the department and may need to request permission for an extension from the APC.

OTHER

The program offers limited financial assistance in the form of fellowships and teaching assistantships to candidates who are highly qualified. Applicants should consult the program website for selection criteria and application materials for assistantships.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

The Graduate School Office of Professional Development (OPD) coordinates, develops, and promotes learning opportunities to foster the academic, professional, and life skills of graduate students and postdoctoral researchers and scholars.

Professional development topics include Individual Development Plans (<https://grad.wisc.edu/pd/idp>), communication, mentoring, grant writing,

dissertation writing, career exploration, job search strategies, and more. OPD collaborates with the Writing Center, Libraries, DoIT Software Training for Students, Delta, career centers, and others to provide a wealth of resources and events tailored to the needs of UW–Madison graduate students.

The office developed and maintains DiscoverPD (<https://my.grad.wisc.edu/DiscoverPD>), an innovative tool for UW–Madison graduate students to advance their academic and professional goals.

DiscoverPD introduces nine areas (or "facets") of professional development, includes a self-assessment, and provides a customized report of areas of strength and weakness. The report comes with recommendations to help graduate students strengthen their ability within each area.

More information on campus resources for student professional development is available at Graduate Student Professional Development (<http://grad.wisc.edu/pd>). Students may keep up-to-date by reading GradConnections (<https://grad.wisc.edu/new-students>), the weekly newsletter for graduate students, and bookmarking the Events Calendar (<https://grad.wisc.edu/events>) to keep tabs on upcoming workshops of interest.

LEARNING OUTCOMES

1. Demonstrate a thorough and in-depth understanding of research problems, potentials, and limits with respect to theory, knowledge, or practice in the selected area of the student's focus.
2. Formulate ideas, concepts, designs, and/or techniques beyond the current boundaries of knowledge within the specialized field(s).
3. Create scholarship and advance knowledge that makes a substantive contribution to the field(s).
4. Articulate and communicate complex ideas in a clear and understandable manner to both specialized and general audiences.
5. Recognize, apply, and foster ethical and professional conduct.

PEOPLE

FACULTY

Asian Languages and Cultures is home to nearly twenty faculty whose research and teaching specialties range from traditional medicine in India, the Hinduist roots of yoga, or diversifying contemporary mindfulness practice with insights from Tibetan Buddhism, to human rights in Thailand - from Chinese ghost stories, traditional poetics and philology, to sociolinguistics and discourse analysis of the Mandarin, Japanese, Korean, Indonesian languages - and from analysis of classical Japanese tale fiction, early modern comedic narratives, manga, anime, and Japanese counterculture. Visit our faculty pages (<https://alc.wisc.edu/about/faculty>) for more information on areas of expertise, current research, teaching and publications.

Erlin Barnard

esbarnard@wisc.edu

Faculty Associate

Fields of Study: Language Pedagogy; Materials Development; Second Language Acquisition

Guhrun Böhnmann

gbuhnema@wisc.edu

Professor

Fields of Study: Sanskrit language and literature; Buddhism in India and Nepal; Hinduism; Tantrism and Yoga Studies

Anthony Cerulli

acerulli@wisc.edu

Associate Professor

Fields of Study: Hinduism; Religion in South Asia; Medical Humanities; History of Medicine in India; Sanskrit Language and Literature; Kerala History and Culture

Charo D'Etcheverry

cdetcheverry@wisc.edu

Associate Professor

Fields of Study: Classical Japanese literature (especially court fiction & its reception and early kabuki)

John D. Dunne

jddunne@wisc.edu

Professor

Fields of Study: Buddhist philosophy and contemplative practice; Religious Studies; Cognitive Science of Religion; Contemplative Science

Naomi Geyer

nfgeyer@wisc.edu

Associate Professor

Fields of Study: Japanese Language, Language Pedagogy, Pragmatics

Tyrell Haberkorn

Associate Professor

Fields of Study: Violence, Human Rights, Sovereignty, Arbitrary Detention, Land Rights, Agrarian Struggle, Historiographies of Repression, Gender Studies, Socialism, Dissident Literature, Southeast Asia (Thailand).

Rania Huntington

huntington@wisc.edu

Professor

Fields of Study: Ming and Qing narrative and drama, literature of the weird and supernatural, memory in literature, depiction of women in literature

Adam L. Kern

alkern@wisc.edu

Professor

Fields of Study: The popular literature, culture, poetry, theater, and visual culture of early modern unto modern Japan (1600-1900). Transcultural comics in Japan (manga, kibyōshi, etc) and beyond.

Byung-jin Lim

byungjin.lim@wisc.edu

Associate Professor

Fields of Study: Korean Language and Linguistics, Second/Foreign Language Acquisition, Computer-Mediated Communication, Korean Language Textbook Development

Junko Mori

jmori@wisc.edu

Professor

Fields of Study: Japanese Linguistics, Applied Linguistics, Conversation Analysis, Sociolinguistics

Takako Nakakubo

tnakakubo@wisc.edu

Faculty Associate

Fields of Study: Second Language Acquisition of Japanese, Japanese Pedagogy, Learning Strategies

William Nienhauser

whnienha@wisc.edu

Professor

Fields of Study: Early traditional fiction and history; early poetry (especially Du Fu and Tao Qian)

Steve Ridgely

steve.ridgely@wisc.edu

Associate Professor

Fields of Study: Modern Japanese literature, Cultural Theory, Transasian Studies

Hongming Zhang

hzhang6@wisc.edu

Professor

Fields of Study: Chinese linguistics; syntax-phonology interface; prosodic phonology; poetic prosody; history of Chinese language; teaching Chinese as a second language

Weihua Zhu

wzhu34@wisc.edu (wzhu34@wisc.edu)

Assistant Professor

Fields of Study: Discourse Analysis, Pragmatics, Pedagogy and Second Language Acquisition

CHINESE, DOCTORAL MINOR

REQUIREMENTS

Students from other graduate programs intending to take a doctoral minor in Chinese should consult the director of graduate study. For the minor, at least 12 credits in graduate-level courses are required (400 level or above; certain 300-level courses are accepted with the prior consent of the program).

PEOPLE

FACULTY

Rania Huntington, Professor

huntington@wisc.edu

Areas of Expertise: Ming and Qing narrative and drama, literature of the weird and supernatural, memory in literature, depiction of women in literature

Current Research: Memory, kinship, and genre in the works of the Yu family of Deqing, 19th-early 20th century. Plays depicting the Taiping Rebellion. Chinese literature of the supernatural, a general introduction.

William Nienhauser, Professor

whnienha@wisc.edu

Areas of Expertise: Early traditional fiction and history; early poetry (especially Du Fu and Tao Qian).

Current Research: *Shiji* of Sima Qian, Tao Qian, *Soushen ji*, Tang *chuanqi* tales, Du Fu.

Hongming Zhang, Professor

hzhang6@wisc.edu

Areas of Expertise: Chinese linguistics; syntax-phonology interface; prosodic phonology; poetic prosody; history of Chinese language; teaching Chinese as a second language

Current Research: Prosodic phonology, language change, rules/forms of classical poetic composition (with respect to tonal pattern and rhyme scheme), and teaching Chinese as a second language (esp. tonal acquisition).

Weihua Zhu, Assistant Professor

wzhu34@wisc.edu

Areas of Expertise: Discourse Analysis, Pragmatics, Pedagogy and Second Language Acquisition

Current Research: Interactional features of Mandarin Chinese speakers in natural conversation; Speech behavior and pragmatic perception; Teaching Chinese as a foreign language

CHINESE, M.A.

UW–Madison offers an M.A. and Ph.D. degree in Chinese, specializing either in **linguistics** (<https://alc.wisc.edu/graduate-program/chinese-linguistics>) or in **literature and culture** (<https://alc.wisc.edu/graduate-program/chinese-literature-and-culture>). The program provides broad foundations and focused training in these two specialties, assuring that our graduates are amply prepared to teach and conduct research.

The linguistics specialty excels in areas of historical linguistics, phonology, prosody, grammaticalization, interface study between syntax and phonology, dialectology, language education, and pragmatics.

The literature and culture specialty covers periods from the pre-Qin through the modern and contemporary, including study of fictional and historiographical narrative, poetry, and drama.

The graduate program in Chinese is housed in the **Department of Asian Languages and Cultures** (<https://alc.wisc.edu>), along with the Japanese and the Asian Languages and Cultures Program. As such students will have opportunities to interact with all faculty, staff, and graduate students affiliated with the department to examine their area of specialty in broader regional and disciplinary contexts.

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Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely

online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum 30 credits

Credit Requirement

Minimum 16 credits

Residence Credit Requirement

Minimum Graduate Coursework Requirement All 30 credits must be completed in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall 3.00 GPA required.

Graduate GPA Requirement

Other Grade Requirements Students must earn a B or above in all coursework (300 or above, not including research credits) taken as a graduate student.

Assessments and Examinations A final written examination is required.

Candidates are required to submit two substantial research papers written in seminars, or, with the consent of the major advisor, in a course at or above the 700 level.

Language Requirements Advanced proficiency in modern Chinese is required. Reading proficiency in Classical Chinese is required for students with interests in pre-twentieth century culture or historical linguistics.

COURSES REQUIRED

All students must take

Code	Title	Credits
E ASIAN 701	Proseminar in Chinese Literature	3
Select one of the following:		6
E ASIAN 651 & E ASIAN 652	History of Chinese Literature and	
E ASIAN 631 & E ASIAN 632	History of the Chinese Language and	
E ASIAN 671 & E ASIAN 672	Literary Studies in Chinese Drama and Literary Studies in Chinese Fiction	
Select one semester of one other history sequence		3
Select one of the following in the chosen track: ^{1,2}		3
E ASIAN 932	Seminar in Chinese Linguistics	
E ASIAN 951	Seminar in Chinese Literature	
E ASIAN 971	Seminar in Chinese Thought	

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

² These may be substituted with other appropriate courses with the approval of the advisor. It is recommended that Chinese linguistics students take E ASIAN 431 Introduction to Chinese Linguistics and E ASIAN 432 Introduction to Chinese Linguistics.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://alc.wisc.edu/graduate-programs/chinese>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 9 credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

With program approval, no more than 7 credits of graduate coursework (as defined above) completed while a UW–Madison undergraduate may be counted to satisfy degree requirements. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison University Special

With program approval, students are allowed to count no more than 9 credits of graduate coursework (as defined above) taken as a UW–Madison Special student. Coursework earned five or more years prior to admission to a Master's degree is not allowed to satisfy requirements.

PROBATION

If a student's average falls below 3.0 in a given semester, the department will decide whether the student may continue on probation. A specific plan will be arranged with dates and deadlines in place in regard to removal of probationary status.

ADVISOR / COMMITTEE

Starting Fall 2018, all students are required to have two co-advisors, identified at the time of admissions. During the course of study, students meet regularly with their advisors to ensure satisfactory progress.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

The maximum time for completing all M.A. requirements and passing the M.A. examination is three years.

Master's degree students who are absent for five or more years will not be given credit for prior work.

OTHER

The program offers limited financial assistance in the form of fellowships and teaching assistantships to candidates who are highly qualified. Applicants should consult the program website for selection criteria and application materials for assistantships.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

The Graduate School Office of Professional Development (OPD) coordinates, develops, and promotes learning opportunities to foster the academic, professional, and life skills of graduate students and postdoctoral researchers and scholars.

Professional development topics include Individual Development Plans (<https://grad.wisc.edu/pd/idp>), communication, mentoring, grant writing, dissertation writing, career exploration, job search strategies, and more. OPD collaborates with the Writing Center, Libraries, DoIT Software Training for Students, Delta, career centers, and others to provide a wealth of resources and events tailored to the needs of UW–Madison graduate students.

The office developed and maintains DiscoverPD (<https://my.grad.wisc.edu/DiscoverPD>), an innovative tool for UW-Madison graduate students to advance their academic and professional goals.

DiscoverPD introduces nine areas (or "facets") of professional development, includes a self-assessment, and provides a customized report of areas of strength and weakness. The report comes with recommendations to help graduate students strengthen their ability within each area.

More information on campus resources for student professional development is available at Graduate Student Professional Development (<http://grad.wisc.edu/pd>). Students may keep up-to-date by reading GradConnections (<https://grad.wisc.edu/new-students>), the weekly newsletter for graduate students, and bookmarking the Events Calendar (<https://grad.wisc.edu/events>) to keep tabs on upcoming workshops of interest.

LEARNING OUTCOMES

1. Demonstrate understanding of the primary field(s) of study in a historical, comparative, and global context.

2. Demonstrate understanding of the major theories, research methods, and approaches to inquiry in one of the following areas of study: Chinese literature and culture, Chinese linguistics, and Transasian studies.

3. Demonstrate ability to integrate theories into practice.

4. Demonstrate ability to articulate and communicate knowledge in specialized field(s).

5. Recognize and apply principles of ethical and professional conduct.

PEOPLE

FACULTY

Asian Languages and Cultures is home to nearly twenty faculty whose research and teaching specialties range from traditional medicine in India, the Hinduist roots of yoga, or diversifying contemporary mindfulness practice with insights from Tibetan Buddhism, to human rights in Thailand - from Chinese ghost stories, traditional poetics and philology, to sociolinguistics and discourse analysis of the Mandarin, Japanese, Korean, Indonesian languages - and from analysis of classical Japanese tale fiction, early modern comedic narratives, manga, anime, and Japanese counterculture. Visit our faculty pages (<https://alc.wisc.edu/about/faculty>) for more information on areas of expertise, current research, teaching and publications.

Erlin Barnard

esbarnard@wisc.edu

Faculty Associate

Fields of Study: Language Pedagogy; Materials Development; Second Language Acquisition

Gudrun Bühnemann

gbuhnema@wisc.edu

Professor

Fields of Study: Sanskrit language and literature; Buddhism in India and Nepal; Hinduism; Tantrism and Yoga Studies

Anthony Cerulli

acerulli@wisc.edu

Associate Professor

Fields of Study: Hinduism; Religion in South Asia; Medical Humanities; History of Medicine in India; Sanskrit Language and Literature; Kerala History and Culture

Charo D'Etcheverry

cdetcheverry@wisc.edu

Associate Professor

Fields of Study: Classical Japanese literature (especially court fiction & its reception and early kabuki)

John D. Dunne

jddunne@wisc.edu

Professor

Fields of Study: Buddhist philosophy and contemplative practice; Religious Studies; Cognitive Science of Religion; Contemplative Science

Naomi Geyer

nfgeyer@wisc.edu

Associate Professor

Fields of Study: Japanese Language, Language Pedagogy, Pragmatics

Tyrell Haberkorn

Associate Professor

Fields of Study: Violence, Human Rights, Sovereignty, Arbitrary Detention, Land Rights, Agrarian Struggle, Historiographies of Repression, Gender Studies, Socialism, Dissident Literature, Southeast Asia (Thailand).

Rania Huntington

huntington@wisc.edu

Professor

Fields of Study: Ming and Qing narrative and drama, literature of the weird and supernatural, memory in literature, depiction of women in literature

Adam L. Kern

alkern@wisc.edu

Professor

Fields of Study: The popular literature, culture, poetry, theater, and visual culture of early modern unto modern Japan (1600-1900). Transcultural comics in Japan (manga, kibyōshi, etc) and beyond.

Byung-jin Lim

byungjin.lim@wisc.edu

Associate Professor

Fields of Study: Korean Language and Linguistics, Second/Foreign Language Acquisition, Computer-Mediated Communication, Korean Language Textbook Development

Junko Mori

jmori@wisc.edu

Professor

Fields of Study: Japanese Linguistics, Applied Linguistics, Conversation Analysis, Sociolinguistics

Takako Nakakubo

tnakakubo@wisc.edu

Faculty Associate

Fields of Study: Second Language Acquisition of Japanese, Japanese Pedagogy, Learning Strategies

William Nienhauser

whnienha@wisc.edu

Professor

Fields of Study: Early traditional fiction and history; early poetry (especially Du Fu and Tao Qian)

Steve Ridgely

steve.ridgely@wisc.edu

Associate Professor

Fields of Study: Modern Japanese literature, Cultural Theory, Transasian Studies

Hongming Zhang

hzhang6@wisc.edu

Professor

Fields of Study: Chinese linguistics; syntax-phonology interface; prosodic phonology; poetic prosody; history of Chinese language; teaching Chinese as a second language

Weihua Zhu

wzhu34@wisc.edu (wzhu34@wisc.edu)

Assistant Professor

Fields of Study: Discourse Analysis, Pragmatics, Pedagogy and Second Language Acquisition

CHINESE, PH.D.

UW–Madison offers an M.A. and Ph.D. degree in Chinese, specializing either in **linguistics** (<https://alc.wisc.edu/graduate-program/chinese-linguistics>) or in **literature and culture** (<https://alc.wisc.edu/graduate-program/chinese-literature-and-culture>). The program provides broad foundations and focused training in these two specialties, assuring that our graduates are amply prepared to teach and conduct research.

The linguistics specialty excels in areas of historical linguistics, phonology, prosody, grammaticalization, interface study between syntax and phonology, dialectology, language education, and pragmatics.

The literature and culture specialty covers periods from the pre-Qin through the modern and contemporary, including study of fictional and historiographical narrative, poetry, and drama.

The graduate program in Chinese is housed in the **Department of Asian Languages and Cultures** (<https://alc.wisc.edu>), along with the Japanese and the Asian Languages and Cultures Program. As such students will have opportunities to interact with all faculty, staff, and graduate students affiliated with the department to examine their area of specialty in broader regional and disciplinary contexts.

ADMISSIONS

Thank you for your interest in our programs. The Department of Asian Languages and Cultures (ALC) offers a graduate program in Asian Languages and Cultures (<https://alc.wisc.edu/graduate-programs/asian-languages-and-cultures>), Chinese (<https://alc.wisc.edu/graduate-programs/chinese>) and Japanese (<https://alc.wisc.edu/graduate-programs/japanese>).

Prior to submitting application and materials, applicants should carefully review the information regarding the program of interest and the faculty's expertise (<https://alc.wisc.edu/about/faculty>) to determine the fit between their interest and the program. To this extent, prospective applicants may contact a specific faculty to discuss their research interest prior to submitting applications.

Applicants should also review the Graduate School's admission process (<http://guide.wisc.edu/graduate/asian-languages-cultures/chinese-phd/%20https://grad.wisc.edu/apply>), Graduate School's minimum requirements (<http://grad.wisc.edu/admissions/requirements>), and program requirements and information prior to submitting the online application and fee. The application fee cannot be waived or refunded.

DEADLINES

We accept applications for the fall term only.

In order to be considered for fellowships, project assistantships, and teaching assistantships (<https://alc.wisc.edu/graduate-programs/costs>), all application materials must be in **by January 10**.

If you do not need any funding support, you may submit applications **by April 15**.

APPLICATION PROCESS

New applicants to UW–Madison apply to programs through the Graduate School application process. Complete the online Graduate application (<https://apply.grad.wisc.edu/Account/Login?ReturnUrl=%2f>) and select

the Asian Languages and Cultures (major code 596) or Chinese (major code 171) or Japanese (major code 583) program.

If you are a currently enrolled UW-Madison graduate student and would like to add or change your current graduate program to Asian Languages and Cultures, Chinese, or Japanese, you do not need to fill out the online application. You will need to submit the following to the ALC Graduate Program Coordinator (1244 Van Hise):

- ALC Departmental Application form (https://alc.wisc.edu/sites/alc.wisc.edu/files/ALC%20Departmental%20Application_internal2017.pdf)
- Grad School "Add/Change Program (<https://grad.wisc.edu/documents/change-program>)" form (click on link and look for form in the "Academic Forms" box)
- Letters of recommendation
- CV or Resume
- Statement of purpose

The applications from current UW–Madison graduate students will be reviewed every spring, together with new applications submitted.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Students applying to the Department of Asian Languages and Culture and students currently enrolled in the department may apply for fellowship support. Most fellowships are handled through the department. However, some are available through sources outside of the department and have different application procedures.

Graduate Studies Costs

For tuition and living costs, please view the Cost of Graduate School page (<http://grad.wisc.edu/admissions/cost>). International applicants recommended for admission to the Graduate School are required to show sufficient funds to attend the University during the course of studies (tuition, food and housing, incidentals and health insurance) to be officially accepted by the Graduate School.

Financial Assistance

Our department offers financial assistance in the forms of fellowships, teaching assistantships (TAs), and project assistantships (PAs).

These positions are highly competitive as applicants are competing against other applicants across the department, and across campus in some cases. **Please make note of the deadline of January 10 for**

financial assistance consideration. All necessary materials including test scores must be submitted by the deadline.

If you are an international applicant and receive a fellowship, PAs or TAs, please make note that you will likely be required to show additional financial documentation to meet the minimum required for your official acceptance to the Graduate School.

Fellowships. Students applying to the Department of Asian Languages and Culture and students currently enrolled in the department may apply for fellowship support. Most fellowships are handled through the department. However, some are available through sources outside of the department and have different application procedures. Some examples are as follows:

- **Foreign Language & Area Studies (FLAS) Fellowships:** FLAS fellowships are funded by the U.S. Department of Education and administered by the UW's National Resource Centers to assist students in acquiring foreign language and either area or international studies competencies. FLAS awards are only available for specific languages (<https://flas.wisc.edu/Languages.html>), and are contingent on federal funding. Applicants must be U.S. citizens or permanent residents of the United States. Applications by students in professional fields are encouraged. Preference will be given to applicants with a high level of academic ability and with previous language training. Academic Year and Summer FLAS awards are **two separate competitions** requiring **two separate and complete applications**. Complete details about FLAS at UW-Madison are available on the FLAS FAQs (<https://flas.wisc.edu/FAQS.html>) (your first stop) and the FLAS Languages & Coordinators (<https://flas.wisc.edu/Languages.html>) pages (should you have additional questions).
- **Advanced Opportunity Fellowship (AOF):** This fellowship is awarded to highly qualified underrepresented students. To be considered for AOF funding, prospective students must be new to the Graduate School and be admissible to a graduate program at the University of Wisconsin-Madison. For further information: <https://grad.wisc.edu/diversity/oeid/>

Project Assistantships. Availabilities of PAs vary from one year to another, depends on the types of projects the departmental faculty are engaged in. PAs assist faculty members' research projects and/or respond to some programmatic needs of the department and other campus units.

Teaching Assistantships. Availabilities and types of TAs vary from one year to another, depending on the department's curricular needs and the student enrollment. TAs will support a number of our language and culture courses, typically team-teaching with faculty members. If you are interested in being a teaching assistant in our language programs, you must submit the TA application and necessary materials through the Graduate School application system **by January 10**.

Other Forms of Financial Aid: Loans and some on-campus job openings are handled through the Student Financial Services Office (<https://financialaid.wisc.edu>). Please contact them to obtain more information

Please also refer to the Graduate School's Funding Information for New and Current Graduate Students (<https://grad.wisc.edu/studentfunding/currentstudents>) page for additional information.

Students may also obtain information from the Grants Information Center (<https://www.library.wisc.edu/memorial/collections/grants-information-collection>) in the Memorial Library, Room 262, 728 State Street, Madison, WI 53706. Phone 608-262-3242.

If you encounter questions or difficulties with the application process, please contact the Graduate Coordinator at rweiss@wisc.edu.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 51 credits

Minimum Residence Credit Requirement 32 credits

Minimum Graduate Coursework Requirement All 51 credits must be completed in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements Ph.D. candidates should maintain a 3.5 GPA in all coursework and may not have any more than two Incompletes on their record at any one time.

Assessments and Examinations All students must take a comprehensive written preliminary examination, covering fields defined in consultation with the advisor and other committee members.

A dissertation proposal must be presented to the members of the Ph.D. committee and accepted within one semester of passing the preliminary examination.

Language Requirements Advanced proficiency in modern Chinese is required. Students must demonstrate reading proficiency in classical Chinese and one additional research language.

Doctoral Minor/Breadth Requirements All doctoral students are required to complete a minor.

REQUIRED COURSES

Four seminars beyond the M.A. level (p. 131) (see below) are required. With the consent of the major professor, courses above the 700 level (exclusive of independent-reading courses) may be substituted for up to two of the seminars.

Requirements for the M.A.

All students must take

Code	Title	Credits
E ASIAN 701	Proseminar in Chinese Literature	3
Select one of the following:		6
E ASIAN 651 & E ASIAN 652	History of Chinese Literature and	
E ASIAN 631 & E ASIAN 632	History of the Chinese Language and	
E ASIAN 671 & E ASIAN 672	Literary Studies in Chinese Drama and Literary Studies in Chinese Fiction	
Select one semester of one other history sequence		3
Select one of the following in the chosen track: ^{1,2}		3
E ASIAN 932	Seminar in Chinese Linguistics	
E ASIAN 951	Seminar in Chinese Literature	
E ASIAN 971	Seminar in Chinese Thought	

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

² These may be substituted with other appropriate courses with the approval of the advisor. It is recommended that Chinese linguistics students take E ASIAN 431 Introduction to Chinese Linguistics and E ASIAN 432 Introduction to Chinese Linguistics.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding

general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://alc.wisc.edu/graduate-programs/chinese>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 9 credits of graduate coursework from other institutions. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

With program approval, no more than 7 credits of graduate coursework (as defined above) completed while a UW–Madison undergraduate may be counted to satisfy degree requirements. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison University Special

With program approval, students are allowed to count no more than 9 credits of graduate coursework (as defined above) taken as a UW–Madison Special student. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

PROBATION

A semester GPA below 3.5 will result in the student being placed on academic probation. If a semester GPA of 3.5 is not attained during the subsequent semester of full time enrollment, the student may be dismissed from the program or allowed to continue for 1 additional semester based on advisor appeal to the Graduate School. A student on probation may not take the preliminary examination.

ADVISOR / COMMITTEE

Starting Fall 2018, all students are required to be supervised by co-advisors. One of the co-advisors must be a member of the Japanese Program, but the other co-advisor can be identified from related fields outside of the Japanese Program.

At the point of beginning work on the dissertation, a single dissertation advisor (most likely one of the co-advisors) may be chosen, or the co-advising arrangement may continue for the dissertation as well.

Dissertation committees must have at least 4 members representing more than one graduate program, 3 of whom must be UW-Madison graduate faculty or former UW-Madison graduate faculty up to one year after resignation or retirement. At least one of the 4 members must be from outside of the student's major program or major field (often from the minor field).

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

OTHER

The program offers limited financial assistance in the form of fellowships and teaching assistantships to candidates who are highly qualified. Applicants should consult the program website for selection criteria and application materials for assistantships.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

The Graduate School Office of Professional Development (OPD) coordinates, develops, and promotes learning opportunities to foster the academic, professional, and life skills of graduate students and postdoctoral researchers and scholars.

Professional development topics include Individual Development Plans (<https://grad.wisc.edu/pd/idp>), communication, mentoring, grant writing, dissertation writing, career exploration, job search strategies, and more. OPD collaborates with the Writing Center, Libraries, DoIT Software Training for Students, Delta, career centers, and others to provide a wealth of resources and events tailored to the needs of UW–Madison graduate students.

The office developed and maintains DiscoverPD (<https://my.grad.wisc.edu/DiscoverPD>), an innovative tool for UW-Madison graduate students to advance their academic and professional goals.

DiscoverPD introduces nine areas (or "facets") of professional development, includes a self-assessment, and provides a customized report of areas of strength and weakness. The report comes with recommendations to help graduate students strengthen their ability within each area.

More information on campus resources for student professional development is available at Graduate Student Professional Development (<http://grad.wisc.edu/pd>). Students may keep up-to-date by reading GradConnections (<https://grad.wisc.edu/new-students>), the weekly newsletter for graduate students, and bookmarking the Events Calendar (<https://grad.wisc.edu/events>) to keep tabs on upcoming workshops of interest.

LEARNING OUTCOMES

1. Demonstrate a thorough and in-depth understanding of research problems, potentials, and limits with respect to theory, knowledge, or practice in at least one of the following areas of study: Chinese literature and culture, Chinese linguistics, and Transasian studies.
2. Formulate ideas, concepts, designs, and/or techniques beyond the current boundaries of knowledge within the specialized field(s).
3. Create scholarship and advance knowledge that makes a substantive contribution to the field(s).
4. Articulate and communicate complex ideas in a clear and understandable manner to both specialized and general audience.
5. Recognize, apply, and foster ethical and professional conduct.

PEOPLE

FACULTY

Rania Huntington, Professor
huntington@wisc.edu

Areas of Expertise: Ming and Qing narrative and drama, literature of the weird and supernatural, memory in literature, depiction of women in literature

Current Research: Memory, kinship, and genre in the works of the Yu family of Deqing, 19th-early 20th century. Plays depicting the Taiping Rebellion. Chinese literature of the supernatural, a general introduction.

William Nienhauser, Professor
whneinha@wisc.edu

Areas of Expertise: Early traditional fiction and history; early poetry (especially Du Fu and Tao Qian).

Current Research: *Shiji* of Sima Qian, Tao Qian, *Soushen ji*, Tang *chuanqi* tales, Du Fu.

Hongming Zhang, Professor
hzhang6@wisc.edu

Areas of Expertise: Chinese linguistics; syntax-phonology interface; prosodic phonology; poetic prosody; history of Chinese language; teaching Chinese as a second language

Current Research: Prosodic phonology, language change, rules/forms of classical poetic composition (with respect to tonal pattern and rhyme scheme), and teaching Chinese as a second language (esp. tonal acquisition).

Weihua Zhu, Assistant Professor
wzhu34@wisc.edu

Areas of Expertise: Discourse Analysis, Pragmatics, Pedagogy and Second Language Acquisition

Current Research: Interactional features of Mandarin Chinese speakers in natural conversation; Speech behavior and pragmatic perception; Teaching Chinese as a foreign language

JAPANESE, DOCTORAL MINOR

REQUIREMENTS

Students from other graduate programs intending to take a doctoral minor in Japanese should consult the director of graduate studies. For the minor, at least 12 credits in graduate-level courses are required (400 level or above; certain 300-level courses are accepted with the prior consent of the program).

PEOPLE

FACULTY

Charo D'Etcheverry, Associate Professor
cdetcheverry@wisc.edu

Areas of Expertise: Classical Japanese literature (especially court fiction & its reception and early kabuki)

Naomi Geyer, Associate Professor
nfgeyer@wisc.edu

Areas of Expertise: Japanese Language, Language Pedagogy, Pragmatics

Adam L. Kern, Professor
alkern@wisc.edu

Areas of Expertise: The popular literature, culture, poetry, theater, and visual culture of early modern unto modern Japan (1600-1900). Transcultural comics in Japan (manga, *kibyôshi*, etc) and beyond.

Naomi McGloin, Professor
nmcgloin@wisc.edu

Areas of Expertise: Japanese Language and Linguistics

Junko Mori, Professor
jmori@wisc.edu

Areas of Expertise: Japanese Linguistics, Applied Linguistics, Conversation Analysis, Sociolinguistics

Takako Nakakubo, Faculty Associate
tnakakubo@wisc.edu

Areas of Expertise: Second Language Acquisition of Japanese, Japanese Pedagogy, Learning Strategies

Steve Ridgely, Associate professor
steve.ridgely@wisc.edu

Areas of Expertise: modern Japanese literature, cultural theory, transasian studies

Current Research: 1960s counterculture, Expo 70, kitsch, topology in Japanese art and literature

JAPANESE, M.A.

UW–Madison offers an M.A. and Ph.D. degree in Japanese, specializing either in linguistics or in literature and culture. The program provides broad foundations and focused training in these two specialties, assuring that our graduates are amply prepared to teach and conduct research.

The linguistics specialty excels in areas such as functional linguistics, pragmatics, discourse/conversation analysis, sociolinguistics, applied linguistics, and language pedagogy.

The literature and culture specialty covers the Heian through Heisei periods, offering a wide range of courses on fiction, poetry, drama, popular culture, visual culture, cinema, acoustic culture, and cutting-edge cross-media and avant-garde topics, particularly manga and anime.

The Japanese Program is housed in the **Department of Asian Languages and Cultures (ALC)**, along with the Chinese Program and the Asian Languages and Cultures Program. As such students will have opportunities to interact with all faculty, staff, and graduate students affiliated with the department to examine their area of specialty in broader regional and disciplinary contexts.

ADMISSIONS

Thank you for your interest in our programs. The Department of Asian Languages and Cultures (ALC) offers a graduate program in Asian Languages and Cultures (<https://alc.wisc.edu/graduate-programs/asian-languages-and-cultures>), Chinese (<https://alc.wisc.edu/graduate-programs/chinese>) and Japanese (<https://alc.wisc.edu/graduate-programs/japanese>).

Prior to submitting application and materials, applicants should carefully review the information regarding the program of interest and the faculty's expertise (<https://alc.wisc.edu/about/faculty>) to determine the fit between their interest and the program. To this extent, prospective applicants may contact a specific faculty to discuss their research interest prior to submitting applications.

Applicants should also review the Graduate School's admission process (<http://guide.wisc.edu/graduate/asian-languages-cultures/japanese-ma/%20https://grad.wisc.edu/apply>), Graduate School's minimum requirements (<http://grad.wisc.edu/admissions/requirements>), and program requirements and information prior to submitting the online application and fee. The application fee cannot be waived or refunded.

DEADLINES

We accept applications for the fall term only.

In order to be considered for fellowships, project assistantships, and teaching assistantships (<https://alc.wisc.edu/graduate-programs/costs>), all application materials must be in **by January 10**.

If you do not need any funding support, you may submit applications **by April 15**.

APPLICATION PROCESS

New applicants to UW-Madison apply to programs through the Graduate School application process. Complete the online Graduate application (<https://apply.grad.wisc.edu/Account/Login?ReturnUrl=%2f>) and select

the Asian Languages and Cultures (major code 596) or Chinese (major code 171) or Japanese (major code 583) program.

If you are a currently enrolled UW-Madison graduate student and would like to add or change your current graduate program to Asian Languages and Cultures, Chinese, or Japanese, you do not need to fill out the online application. You will need to submit the following to the ALC Graduate Program Coordinator (1244 Van Hise):

- ALC Departmental Application form (https://alc.wisc.edu/sites/alc.wisc.edu/files/ALC%20Departmental%20Application_internal2017.pdf)
- Grad School "Add/Change Program (<https://grad.wisc.edu/documents/change-program>)" form (click on link and look for form in the "Academic Forms" box)
- Letters of recommendation
- CV or Resume
- Statement of purpose

The applications from current UW–Madison graduate students will be reviewed every spring, together with new applications submitted.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Students applying to the Department of Asian Languages and Culture and students currently enrolled in the department may apply for fellowship support. Most fellowships are handled through the department. However, some are available through sources outside of the department and have different application procedures.

Graduate Studies Costs

For tuition and living costs, please view the Cost of Graduate School page (<http://grad.wisc.edu/admissions/cost>). International applicants recommended for admission to the Graduate School are required to show sufficient funds to attend the University during the course of studies (tuition, food and housing, incidentals and health insurance) to be officially accepted by the Graduate School.

Financial Assistance

Our department offers financial assistance in the forms of fellowships, teaching assistantships (TAs), and project assistantships (PAs).

These positions are highly competitive as applicants are competing against other applicants across the department, and across campus in some cases. **Please make note of the deadline of January 10 for**

financial assistance consideration. All necessary materials including test scores must be submitted by the deadline.

If you are an international applicant and receive a fellowship, PAship or TAsip, please make note that you will likely be required to show additional financial documentation to meet the minimum required for your official acceptance to the Graduate School.

Fellowships. Students applying to the Department of Asian Languages and Culture and students currently enrolled in the department may apply for fellowship support. Most fellowships are handled through the department. However, some are available through sources outside of the department and have different application procedures. Some examples are as follows:

- **Foreign Language & Area Studies (FLAS) Fellowships:** FLAS fellowships are funded by the U.S. Department of Education and administered by the UW's National Resource Centers to assist students in acquiring foreign language and either area or international studies competencies. FLAS awards are only available for specific languages (<https://flas.wisc.edu/Languages.html>), and are contingent on federal funding. Applicants must be U.S. citizens or permanent residents of the United States. Applications by students in professional fields are encouraged. Preference will be given to applicants with a high level of academic ability and with previous language training. Academic Year and Summer FLAS awards are **two separate competitions** requiring **two separate and complete applications**. Complete details about FLAS at UW-Madison are available on the FLAS FAQs (<https://flas.wisc.edu/FAQS.html>) (your first stop) and the FLAS Languages & Coordinators (<https://flas.wisc.edu/Languages.html>) pages (should you have additional questions).
- **Advanced Opportunity Fellowship (AOF):** This fellowship is awarded to highly qualified underrepresented students. To be considered for AOF funding, prospective students must be new to the Graduate School and be admissible to a graduate program at the University of Wisconsin-Madison. For further information: <https://grad.wisc.edu/diversity/oeid/>

Project Assistantships. Availabilities of PAship vary from one year to another, depends on the types of projects the departmental faculty are engaged in. PAs assist faculty members' research projects and/or respond to some programmatic needs of the department and other campus units.

Teaching Assistantships. Availabilities and types of TAsip vary from one year to another, depending on the department's curricular needs and the student enrollment. TAs will support a number of our language and culture courses, typically team-teaching with faculty members. If you are interested in being a teaching assistant in our language programs, you must submit the TA application and necessary materials through the Graduate School application system **by January 10**.

Other Forms of Financial Aid: Loans and some on-campus job openings are handled through the Student Financial Services Office (<https://financialaid.wisc.edu>). Please contact them to obtain more information

Please also refer to the Graduate School's Funding Information for New and Current Graduate Students (<https://grad.wisc.edu/studentfunding/currentstudents>) page for additional information.

Students may also obtain information from the Grants Information Center (<https://www.library.wisc.edu/memorial/collections/grants-information-collection>) in the Memorial Library, Room 262, 728 State Street, Madison, WI 53706. Phone 608-262-3242.

If you encounter questions or difficulties with the application process, please contact the Graduate Coordinator at rweiss@wisc.edu.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum 30 credits
Credit
Requirement

Minimum 16 credits
Residence
Credit
Requirement

Minimum All 30 credits must be in graduate-level coursework;
Graduate courses with the Graduate Level Coursework attribute are
Coursework identified and searchable in the university's Course Guide
Requirement (<https://registrar.wisc.edu/course-guide/>).

Overall 3.00 GPA required.
Graduate GPA
Requirement

Other Grade Requirements Students must earn a B or above in all coursework (300 or above, not including research credits) taken as a graduate student.

Assessments and Examinations Japanese linguistics students are required to pass two in-class exams on Japanese Pedagogy and Japanese Linguistics; and to successfully deliver an M.A. project presentation based on a research project or a pedagogy-oriented project.

For Japanese literature/culture students, a final examination is required.

Language Requirements Advanced proficiency in modern Japanese is required.

REQUIRED COURSES

Linguistics Track ¹

Code	Title	Credits
Required Courses:		
E ASIAN 434	Introduction to Japanese Linguistics	3
E ASIAN 623	Teaching of Japanese as a Foreign Language	3
E ASIAN 775	Studies in Japanese Linguistics (Repeatable)	3

- 18 credits out of the 30 credits need to be taken from the department. The required courses above must be part of these. You may consider taking courses on Japanese literature/culture to satisfy this portion of requirements.
- If you do not have sufficient linguistics background, you are encouraged to take LINGUIS/ANTHRO 301 Introduction to Linguistics: Descriptive and Theoretical during your first semester.
- If you had not satisfied the prerequisites for the M.A. program (the equivalent of our undergraduate major degree, which includes 4 years of Japanese in our program) prior to your enrollment, you need to satisfy this requirement by taking appropriate level of language courses.
- You may consider taking courses on linguistics, applied linguistics, language acquisition or language education offered in Linguistics, English (Language and Linguistics), Curriculum and Instruction, French and Italian, German, Spanish and Portuguese, and so on to fulfill the requirements.
- Consult the faculty every semester regarding the registration of courses in the following semester. You may discuss your plans with any one of the three Japanese linguistics faculty, but please consult the designated graduate advisor, the role of which will be rotated among the faculty.
- Most students take four semesters to complete the course work necessary for the MA degree, and officially earn the degree in the following summer (an exception to this schedule may be considered on a case-by-case basis).

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Literature Track ¹

Japanese literature/culture students must take three graduate-level courses (500 level or above) in literature/culture, including at least one course at the 700 level or higher.

Code	Title	Credits
Required Courses:		
E ASIAN 573	Readings in Classical Japanese Literature	3
E ASIAN 574		3
E ASIAN 563	Readings in Modern Japanese Literature	3
E ASIAN 564		3
Seminar in Japanese Literature		

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://alc.wisc.edu/graduate-programs/japanese>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 9 credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

With program approval, no more than 7 credits of graduate coursework (as defined above) completed while a UW–Madison undergraduate may be counted to satisfy degree requirements. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison University Special

With program approval, students are allowed to count no more than 9 credits of graduate coursework (as defined above) taken as a UW–Madison Special student. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

If a student's average falls below 3.0 in a given semester, the department will decide whether the student may continue on probation. A specific plan will be arranged with dates and deadlines in place in regard to removal of probationary status.

ADVISOR / COMMITTEE

Starting fall 2018, all students are required to have two co-advisors, identified at the time of admissions. During the course of study, students meet regularly with their advisors to ensure satisfactory progress.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

The maximum time for completing all M.A. requirements and passing the M.A. examination is three years.

Master's degree students who are absent for five or more years will not be given credit for prior work.

OTHER

The program offers limited financial assistance in the form of fellowships and teaching assistantships to candidates who are highly qualified. Applicants should consult the program website for selection criteria and application materials for assistantships.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

The Graduate School Office of Professional Development (OPD) coordinates, develops, and promotes learning opportunities to foster the academic, professional, and life skills of graduate students and postdoctoral researchers and scholars.

Professional development topics include Individual Development Plans (<https://grad.wisc.edu/pd/idp>), communication, mentoring, grant writing, dissertation writing, career exploration, job search strategies, and more. OPD collaborates with the Writing Center, Libraries, DoIT Software Training for Students, Delta, career centers, and others to provide a wealth of resources and events tailored to the needs of UW–Madison graduate students.

The office developed and maintains DiscoverPD (<https://my.grad.wisc.edu/DiscoverPD>), an innovative tool for UW–Madison graduate students to advance their academic and professional goals.

DiscoverPD introduces nine areas (or "facets") of professional development, includes a self-assessment, and provides a customized report of areas of strength and weakness. The report comes with recommendations to help graduate students strengthen their ability within each area.

More information on campus resources for student professional development is available at Graduate Student Professional Development (<http://grad.wisc.edu/pd>). Students may keep up-to-date by reading GradConnections (<https://grad.wisc.edu/new-students>), the weekly newsletter for graduate students, and bookmarking the Events Calendar (<https://grad.wisc.edu/events>) to keep tabs on upcoming workshops of interest.

LEARNING OUTCOMES

1. Demonstrate a thorough and in-depth understanding of research problems, potentials, and limits with respect to theory, knowledge, or practice in at least one of the following areas of study: Japanese literature and culture, Japanese linguistics, and Transasian studies.
2. Formulate ideas, concepts, designs, and/or techniques beyond the current boundaries of knowledge within the specialized field(s).
3. Create scholarship and advance knowledge that makes a substantive contribution to the field(s).
4. Articulate and communicate complex ideas in a clear and understandable manner to both specialized and general audience.
5. Recognize, apply, and foster ethical and professional conduct.

PEOPLE

FACULTY

Charo D'Etcheverry, Associate Professor
cdetcheverry@wisc.edu

Areas of Expertise: Classical Japanese literature (especially court fiction & its reception and early kabuki)

Naomi Geyer, Associate Professor
nfgeyer@wisc.edu

Areas of Expertise: Japanese Language, Language Pedagogy, Pragmatics

Adam L. Kern, Professor
alkern@wisc.edu

Areas of Expertise: The popular literature, culture, poetry, theater, and visual culture of early modern unto modern Japan (1600-1900). Transcultural comics in Japan (manga, *kibyōshi*, etc) and beyond.

Naomi McGloin, Professor
nmcgloin@wisc.edu

Areas of Expertise: Japanese Language and Linguistics

Junko Mori, Professor
jmori@wisc.edu

Areas of Expertise: Japanese Linguistics, Applied Linguistics, Conversation Analysis, Sociolinguistics

Takako Nakakubo, Faculty Associate
tnakakubo@wisc.edu

Areas of Expertise: Second Language Acquisition of Japanese, Japanese Pedagogy, Learning Strategies

Steve Ridgely, Associate professor

steve.ridgely@wisc.edu

Areas of Expertise: modern Japanese literature, cultural theory, transasian studies

Current Research: 1960s counterculture, Expo 70, kitsch, topology in Japanese art and literature

JAPANESE, PH.D.

UW–Madison offers an M.A. and Ph.D. degree in Japanese, specializing either in linguistics or in literature and culture. The program provides broad foundations and focused training in these two specialties, assuring that our graduates are amply prepared to teach and conduct research.

The linguistics specialty excels in areas such as functional linguistics, pragmatics, discourse/conversation analysis, sociolinguistics, applied linguistics, and language pedagogy.

The literature and culture specialty covers the Heian through Heisei periods, offering a wide range of courses on fiction, poetry, drama, popular culture, visual culture, cinema, acoustic culture, and cutting-edge cross-media and avant-garde topics, particularly manga and anime.

The Japanese Program is housed in the **Department of Asian Languages and Cultures** (ALC), along with the Chinese Program and the Asian Languages and Cultures Program. As such students will have opportunities to interact with all faculty, staff, and graduate students affiliated with the department to examine their area of specialty in broader regional and disciplinary contexts.

ADMISSIONS

Thank you for your interest in our programs. The Department of Asian Languages and Cultures (ALC) offers a graduate program in Asian Languages and Cultures (<https://alc.wisc.edu/graduate-programs/asian-languages-and-cultures>), Chinese (<https://alc.wisc.edu/graduate-programs/chinese>) and Japanese (<https://alc.wisc.edu/graduate-programs/japanese>).

Prior to submitting application and materials, applicants should carefully review the information regarding the program of interest and the faculty's expertise (<https://alc.wisc.edu/about/faculty>) to determine the fit between their interest and the program. To this extent, prospective applicants may contact a specific faculty to discuss their research interest prior to submitting applications.

Applicants should also review the Graduate School's admission process (<http://guide.wisc.edu/graduate/asian-languages-cultures/japanese-phd/%20https://grad.wisc.edu/apply>), Graduate School's minimum requirements (<http://grad.wisc.edu/admissions/requirements>), and program requirements and information prior to submitting the online application and fee. The application fee cannot be waived or refunded.

DEADLINES

We accept applications for the fall term only.

In order to be considered for fellowships, project assistantships, and teaching assistantships (<https://alc.wisc.edu/graduate-programs/costs>), all application materials must be in **by January 10**.

If you do not need any funding support, you may submit applications **by April 15**.

APPLICATION PROCESS

New applicants to UW-Madison apply to programs through the Graduate School application process. Complete the online Graduate application (<https://apply.grad.wisc.edu/Account/Login?ReturnUrl=%2f>) and select the Asian Languages and Cultures (major code 596) or Chinese (major code 171) or Japanese (major code 583) program.

If you are a currently enrolled UW-Madison graduate student and would like to add or change your current graduate program to Asian Languages and Cultures, Chinese, or Japanese, you do not need to fill out the online application. You will need to submit the following to the ALC Graduate Program Coordinator (1244 Van Hise):

- ALC Departmental Application form (https://alc.wisc.edu/sites/alc.wisc.edu/files/ALC%20Departmental%20Application_internal2017.pdf)
- Grad School "Add/Change Program (<https://grad.wisc.edu/documents/change-program>)" form (click on link and look for form in the "Academic Forms" box)
- Letters of recommendation
- CV or Resume
- Statement of purpose

The applications from current UW–Madison graduate students will be reviewed every spring, together with new applications submitted.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Students applying to the Department of Asian Languages and Culture and students currently enrolled in the department may apply for fellowship support. Most fellowships are handled through the department. However, some are available through sources outside of the department and have different application procedures.

Graduate Studies Costs

For tuition and living costs, please view the Cost of Graduate School page (<http://grad.wisc.edu/admissions/cost>). International applicants

recommended for admission to the Graduate School are required to show sufficient funds to attend the University during the course of studies (tuition, food and housing, incidentals and health insurance) to be officially accepted by the Graduate School.

Financial Assistance

Our department offers financial assistance in the forms of fellowships, teaching assistantships (TAships), and project assistantships (PAships).

These positions are highly competitive as applicants are competing against other applicants across the department, and across campus in some cases. **Please make note of the deadline of January 10 for financial assistance consideration.** All necessary materials including test scores must be submitted by the deadline.

If you are an international applicant and receive a fellowship, PAship or TAship, please make note that you will likely be required to show additional financial documentation to meet the minimum required for your official acceptance to the Graduate School.

Fellowships. Students applying to the Department of Asian Languages and Culture and students currently enrolled in the department may apply for fellowship support. Most fellowships are handled through the department. However, some are available through sources outside of the department and have different application procedures. Some examples are as follows:

- **Foreign Language & Area Studies (FLAS) Fellowships:** FLAS fellowships are funded by the U.S. Department of Education and administered by the UW's National Resource Centers to assist students in acquiring foreign language and either area or international studies competencies. FLAS awards are only available for specific languages (<https://flas.wisc.edu/Languages.html>), and are contingent on federal funding. Applicants must be U.S. citizens or permanent residents of the United States. Applications by students in professional fields are encouraged. Preference will be given to applicants with a high level of academic ability and with previous language training. Academic Year and Summer FLAS awards are **two separate competitions requiring two separate and complete applications.** Complete details about FLAS at UW-Madison are available on the FLAS FAQs (<https://flas.wisc.edu/FAQS.html>) (your first stop) and the FLAS Languages & Coordinators (<https://flas.wisc.edu/Languages.html>) pages (should you have additional questions).
- **Advanced Opportunity Fellowship (AOF):** This fellowship is awarded to highly qualified underrepresented students. To be considered for AOF funding, prospective students must be new to the Graduate School and be admissible to a graduate program at the University of Wisconsin-Madison. For further information: <https://grad.wisc.edu/diversity/oeid/>

Project Assistantships. Availabilities of PAship vary from one year to another, depends on the types of projects the departmental faculty are engaged in. PAs assist faculty members' research projects and/or respond to some programmatic needs of the department and other campus units.

Teaching Assistantships. Availabilities and types of TAship vary from one year to another, depending on the department's curricular needs and the student enrollment. TAs will support a number of our language and culture courses, typically team-teaching with faculty members. If you are interested in being a teaching assistant in our language programs,

you must submit the TA application and necessary materials through the Graduate School application system **by January 10.**

Other Forms of Financial Aid: Loans and some on-campus job openings are handled through the Student Financial Services Office (<https://financialaid.wisc.edu>). Please contact them to obtain more information

Please also refer to the Graduate School's Funding Information for New and Current Graduate Students (<https://grad.wisc.edu/studentfunding/currentstudents>) page for additional information.

Students may also obtain information from the Grants Information Center (<https://www.library.wisc.edu/memorial/collections/grants-information-collection>) in the Memorial Library, Room 262, 728 State Street, Madison, WI 53706. Phone 608-262-3242.

If you encounter questions or difficulties with the application process, please contact the Graduate Coordinator at rweiss@wisc.edu.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum 51 credits
Credit
Requirement

Minimum Residence Credit Requirement	32 credits
Minimum Graduate Coursework Requirement	All 51 credits must be in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.
Overall Graduate GPA Requirement	3.50 GPA required.
Other Grade Requirements	Ph.D. candidates should maintain a 3.5 GPA in all coursework and may not have any more than two incompletes on their record at any one time.
Assessments and Examinations	<p>Japanese linguistics students need to take-home preliminary exams that cover the following three areas: Japanese applied linguistics / Japanese language education; research methods and data analysis; analysis of an issue that reflects the student's specific research interests.</p> <p>Japanese literature/culture students are required to take a comprehensive preliminary examination.</p> <p>All students present a dissertation proposal to the members of the Dissertation Committee and accepted within one semester of passing the preliminary examination.</p>
Language Requirements	<p>Japanese linguistic students are required to demonstrate basic knowledge of the structure of one non-Western language other than Japanese. The language requirements must be completed by time when students finish taking the preliminary exams.</p> <p>Japanese literature students must demonstrate reading proficiency in classical Japanese and one research language.</p>
Doctoral Minor/Breadth Requirements	All doctoral students are required to complete a minor.

REQUIRED COURSES

Linguistics Track ¹

After completing the M.A. (p. 140), Japanese Linguistics students must take at least three additional courses in Japanese linguistics (http://guide.wisc.edu/courses/e_asian) or related fields at the 700 level or higher. It is recommended that students take a research method course such as ENGL 711 Research Methods in Applied Linguistics.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Literature Track ¹

Beyond the M.A. requirements (p. 140), students must take three additional courses in Japanese literature/culture (http://guide.wisc.edu/courses/e_asian) at the 700 level or higher.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do

not appear in the Graduate School admissions application, and they will not appear on the transcript.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://alc.wisc.edu/graduate-programs/japanese>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 9 credits of graduate coursework from other institutions. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

With program approval, no more than 7 credits of graduate coursework (as defined above) completed while a UW–Madison undergraduate may be counted to satisfy degree requirements. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison University Special

With program approval, students are allowed to count no more than 9 credits of graduate coursework (as defined above) taken as a UW–Madison special student. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

PROBATION

A semester GPA below 3.5 will result in the student being placed on academic probation. If a semester GPA of 3.5 is not attained during the subsequent semester of full time enrollment, the student may be dismissed from the program or allowed to continue for 1 additional semester based on advisor appeal to the Graduate School. A student on probation may not take the preliminary examination.

ADVISOR / COMMITTEE

Starting fall 2018, all students are required to be supervised by co-advisors. One of the co-advisors must be a member of the Japanese Program, but the other co-advisor can be identified from related fields outside of the Japanese Program.

At the point of beginning work on the dissertation, a single dissertation advisor (most likely one of the co-advisors) may be

chosen, or the co-advising arrangement may continue for the dissertation as well.

Dissertation committees must have at least four members representing more than one graduate program, three of whom must be UW–Madison graduate faculty or former UW–Madison graduate faculty up to one year after resignation or retirement. At least one of the four members must be from outside of the student's major program or major field (often from the minor field).

CREDITS PER TERM ALLOWED

Starting fall 2018, all students are required to be supervised by co-advisors. One of the co-advisors must be a member of the Japanese Program, but the other co-advisor can be identified from related fields outside of the Japanese Program.

At the point of beginning work on the dissertation, a single dissertation advisor (most likely one of the co-advisors) may be chosen, or the co-advising arrangement may continue for the dissertation as well.

Dissertation committees must have at least four members representing more than one graduate program, three of whom must be UW–Madison graduate faculty or former UW–Madison graduate faculty up to one year after resignation or retirement. At least one of the four members must be from outside of the student's major program or major field (often from the minor field).

TIME CONSTRAINTS

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

OTHER

The program offers limited financial assistance in the form of fellowships and teaching assistantships to candidates who are highly qualified. Applicants should consult the program website for selection criteria and application materials for assistantships.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

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Professional development topics include Individual Development Plans (<https://grad.wisc.edu/pd/idp>), communication, mentoring, grant writing, dissertation writing, career exploration, job search strategies, and more. OPD collaborates with the Writing Center, Libraries, DoIT Software Training for Students, Delta, career centers, and others to provide a

wealth of resources and events tailored to the needs of UW–Madison graduate students.

The office developed and maintains DiscoverPD (<https://my.grad.wisc.edu/DiscoverPD>), an innovative tool for UW–Madison graduate students to advance their academic and professional goals.

DiscoverPD introduces nine areas (or "facets") of professional development, includes a self-assessment, and provides a customized report of areas of strength and weakness. The report comes with recommendations to help graduate students strengthen their ability within each area.

More information on campus resources for student professional development is available at Graduate Student Professional Development (<http://grad.wisc.edu/pd>). Students may keep up-to-date by reading GradConnections (<https://grad.wisc.edu/new-students>), the weekly newsletter for graduate students, and bookmarking the Events Calendar (<https://grad.wisc.edu/events>) to keep tabs on upcoming workshops of interest.

LEARNING OUTCOMES

1. Demonstrate a thorough and in-depth understanding of research problems, potentials, and limits with respect to theory, knowledge, or practice in at least one of the following areas of study: Japanese literature and culture, Japanese linguistics, and Transasian studies.
2. Formulate ideas, concepts, designs, and/or techniques beyond the current boundaries of knowledge within the specialized field(s).
3. Create scholarship and advance knowledge that makes a substantive contribution to the field(s).
4. Articulate and communicate complex ideas in a clear and understandable manner to both specialized and general audience.
5. Recognize, apply, and foster ethical and professional conduct.

PEOPLE

FACULTY

Charo D'Etcheverry, Associate Professor
cdetcheverry@wisc.edu

Areas of Expertise: Classical Japanese literature (especially court fiction & its reception and early kabuki)

Naomi Geyer, Associate Professor
nfgeyer@wisc.edu

Areas of Expertise: Japanese Language, Language Pedagogy, Pragmatics

Adam L. Kern, Professor
alkern@wisc.edu

Areas of Expertise: The popular literature, culture, poetry, theater, and visual culture of early modern unto modern Japan (1600-1900). Transcultural comics in Japan (manga, *kibyôshi*, etc) and beyond.

Naomi McGloin, Professor
nmcgloin@wisc.edu

Areas of Expertise: Japanese Language and Linguistics

Junko Mori, Professor
jmori@wisc.edu

Areas of Expertise: Japanese Linguistics, Applied Linguistics,
Conversation Analysis, Sociolinguistics

Takako Nakakubo, Faculty Associate
tnakakubo@wisc.edu

Areas of Expertise: Second Language Acquisition of Japanese, Japanese
Pedagogy, Learning Strategies

Steve Ridgely, Associate professor
steve.ridgely@wisc.edu

Areas of Expertise: modern Japanese literature, cultural theory,
transasian studies

Current Research: 1960s counterculture, Expo 70, kitsch, topology in
Japanese art and literature

ASTRONOMY

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Astronomy, Doctoral Minor (p. 147)
- Astronomy, M.S. (p. 147)
- Astronomy, Ph.D. (p. 149)

PEOPLE

Faculty: Professors Zweibel (chair), Barger, Bershady, Heinz, Lazarian, Mathieu, Stanimirovic, Wilcots; Associate Professor Townsend, Tremonti; Assistant Professors D'Onghia.

ASTRONOMY, DOCTORAL MINOR

REQUIREMENTS

Graduate students from other programs who wish to minor in astronomy should ask the department to assign them a minor professor. The minimum requirement for a minor is 10 credits from courses at or above the 500 level offered by the Department of Astronomy, to include both ASTRON 500 Techniques of Modern Observational Astrophysics and ASTRON 700 Basic Astrophysics I.

PEOPLE

Faculty: Professors Zweibel (chair), Barger, Bershady, Heinz, Lazarian, Mathieu, Stanimirovic, Wilcots; Associate Professor Townsend, Tremonti; Assistant Professors D'Onghia.

ASTRONOMY, M.S.

The Department of Astronomy offers the doctor of philosophy in astronomy. Although a master's degree is offered, students are not admitted for a terminal master's degree.

The department has a long-standing reputation as one of the finest graduate astronomy and astrophysics programs in the United States. The program provides each student with a broad knowledge of modern observational and theoretical astrophysics, while emphasizing the development of independent research skills. Beginning with the first year in the program, graduate students play an active role in the department's research programs and have access to all research facilities. As teaching assistants, they also acquire experience as astronomy educators.

The faculty are engaged in a broad range of observational and theoretical research. Topics of study include dynamical phenomena of massive stars; binary star evolution; dynamics of star clusters and star forming regions; compact objects; the interstellar and intergalactic medium; star formation; plasma astrophysics; computational fluid mechanics; magnetic fields; turbulence; the structure, kinematics, and stellar populations of nearby galaxies; active galactic nuclei; galactic winds and chemical evolution; galaxy clusters; galaxy formation and evolution; the star formation and black hole accretion history of the universe; and the development of innovative astronomical instrumentation. More information is available on the department website.

RESEARCH FACILITIES

Astronomical observations at UW–Madison trace their origin to the 15-inch refractor of Washburn Observatory, founded on the campus in 1878, and still open for public viewing. Wisconsin subsequently pioneered a multi-wavelength approach to astronomical observation. Faculty, research staff, and students are frequent observers on X-ray, ultraviolet, optical, infrared, radio, and submillimeter telescopes around the globe and in space. The department currently participates in the operation of a number of research-class observing facilities and is actively engaged in the development of cutting-edge instrumentation.

The university is a major partner in the WIYN telescope, an advanced technology 3.5m telescope at Kitt Peak, Arizona, optimized for wide-field imaging and spectroscopy, and in the 11m Southern African Large Telescope (SALT), the largest single aperture optical telescope in the Southern Hemisphere. The university is also a partner in the Sloan Digital Sky Survey IV, a massive spectroscopic survey of the distant Universe, nearby galaxies, and stars in the Milky Way. The department is actively involved in ASKAP and MEERKAT, precursor experiments for an array of radio telescopes one square kilometer in size.

The department has a long history of developing astronomical instrumentation for both ground and space-based facilities. Current efforts center on the development of a near-infrared arm for the Robert Stobie Spectrograph on SALT, and the design and testing of fiber bundle arrays for the Sloan Digital Sky Survey IV. UW scientists are also continuing to develop and operate the Wisconsin H-Alpha Mapper (WHAM), a uniquely powerful instrument dedicated to the study of the warm ionized gas in the Milky Way, and an innovative and highly successful Star Tracker for sounding rocket and balloon-borne experiments. Technical support is provided by in-house electronics and machine shops.

The theory group maintains a variety of facilities to support numerical simulations. The main workhorse is a 72-node, 576-core cluster optimized for tightly coupled problems, such as hydrodynamics and magneto-hydrodynamics. A number of smaller clusters are used for development, analysis and three-dimensional visualization.

ADMISSIONS

This master's program is offered for work leading to the Ph.D. Students may not apply directly for the master's, and should instead see the admissions information for the Ph.D (p. 149).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum 34 credits

Credit Requirement

Minimum 16 credits

Residence Credit Requirement

Minimum Graduate Coursework Requirement Half of degree coursework (17 credits out of 34 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall 3.00 GPA required.

Graduate GPA Requirement

Other Grade Requirements A grade of S must be received in ASTRON 990 Research and Thesis before the preliminary examination may be taken.

Assessments and Examinations Students take a preliminary examination after completing their second academic year. Possible scores are "high pass," "low pass," and "fail." Students attaining a high pass or a low pass are eligible for a master's. Students who fail will be dismissed from the program.

To receive a terminal master's degree, students must complete a written master's thesis that is approved by their faculty advisor.

Language Requirements No language requirements.

REQUIRED Courses

Code	Title	Credits
ASTRON 500	Techniques of Modern Observational Astrophysics	3
ASTRON 700	Basic Astrophysics I	2
ASTRON 702	Basic Astrophysics II	2
ASTRON 715	Stellar Interiors and Evolution	2
ASTRON 720	The Interstellar Medium I: Basic Processes	2
ASTRON 730	Galaxies	2
ASTRON 735	Observational Cosmology	2
ASTRON 990	Research and Thesis	1-12

Breadth Requirement

All M.S. students are required to complete 12 credits of coursework in relevant departments outside of astronomy. The coursework will normally be at the 400 level and above although special exceptions may be made in the case where 300-level courses are needed to satisfy prerequisites. At least two courses must be at the 600 level and above. Courses in departments other than physics should be approved by the student's mentoring committee (or the graduate advisor if the mentoring committee has not yet been formed.)

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<http://www.astro.wisc.edu/grad-students/phd-program>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 17 credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW-Madison Undergraduate

Up to 7 credits numbered 700 or above from a UW-Madison undergraduate degree are allowed to count toward the degree.

UW-Madison University Special

With program approval, students are allowed to count no more than 15 credits of coursework numbered 400 or above taken as a UW-Madison Special student. Coursework earned five or more years prior to admission to a master's is not allowed to satisfy requirements.

PROBATION

A grade of C or lower in a core course will result in the student being placed on academic probation. This is removed after the next grade of B or better in a core course. Grades of C or lower in two or more core courses will result in dismissal.

A semester GPA below 3.0 will result in the student being placed on academic probation. This will be removed if the student attains a GPA of 3.0 or above in the subsequent semester.

ADVISOR / COMMITTEE

All students will be assigned a mentoring committee consisting of the student's advisor and two other faculty members. Students are strongly encouraged (but not required) to meet with their mentoring committees twice a year.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years will be dismissed from the program.

OTHER

University fellowships or departmental assistantships are offered, contingent on satisfactory progress. The length of guaranteed student support is four continuous years for those with no prior graduate work. Three continuous years of funding are guaranteed for those with one year or more of prior graduate work. It is almost always the case that students remain fully funded through their thesis defense.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Demonstrate a broad understanding of core astrophysical topics including gravitational dynamics; radiative processes; the interstellar medium; the formation, structure, and evolution of stars and galaxies; cosmology; and observational and numerical techniques.
2. Identify sources and assemble evidence pertaining to questions or challenges in their area of concentration.
3. Synthesize knowledge from disparate sources and evaluate evidence for and against hypotheses.
4. Demonstrate academic mastery in their area of concentration, including an understanding of appropriate research methodologies, current theories, recent findings, and their broader implications.
5. Recognize and apply principles of ethical and professional conduct.

PEOPLE

Faculty: Professors Zweibel (chair), Barger, Bershady, Heinz, Lazarian, Mathieu, Stanimirovic, Wilcots; Associate Professor Townsend, Tremonti; Assistant Professors D'Onghia.

ASTRONOMY, PH.D.

The goal of the graduate program is to prepare capable and creative astronomers for careers in research and education. The granting of the Ph.D. degree indicates that the recipient has a mastery of the knowledge and techniques of modern astrophysics. A Ph.D. candidate is expected to be both knowledgeable of problems at the frontiers of astrophysical research and able to carry out independent forefront research in a specialized area. Candidates are required to gain experience as teaching assistants and are encouraged to work with a variety of faculty and research staff members during the first two years of study.

The Department of Astronomy offers the doctor of philosophy in astronomy. Although a master's degree is offered, students generally are not admitted for a terminal master's degree.

The department has a long-standing reputation as one of the finest graduate astronomy and astrophysics programs in the United States.

The program provides each student with a broad knowledge of modern observational and theoretical astrophysics, while emphasizing the development of independent research skills. Beginning with the first year in the program, graduate students play an active role in the department's research programs and have access to all research facilities. As teaching assistants, they also acquire experience as astronomy educators.

The faculty are engaged in a broad range of observational and theoretical research. Topics of study include dynamical phenomena of massive stars; binary star evolution; dynamics of star clusters and star forming regions; compact objects; the interstellar and intergalactic medium; star formation; plasma astrophysics; computational fluid mechanics; magnetic fields; turbulence; the structure, kinematics, and stellar populations of nearby galaxies; active galactic nuclei; galactic winds and chemical evolution; galaxy clusters; galaxy formation and evolution; the star formation and black hole accretion history of the universe; and the development of innovative astronomical instrumentation. More information is available on the department website.

RESEARCH FACILITIES

Astronomical observations at UW–Madison trace their origin to the 15-inch refractor of Washburn Observatory, founded on the campus in 1878, and still open for public viewing. Wisconsin subsequently pioneered a multi-wavelength approach to astronomical observation. Faculty, research staff, and students are frequent observers on X-ray, ultraviolet, optical, infrared, radio, and submillimeter telescopes around the globe and in space. The department currently participates in the operation of a number of research-class observing facilities and is actively engaged in the development of cutting-edge instrumentation.

The university is a major partner in the WIYN telescope, an advanced technology 3.5m telescope at Kitt Peak, Arizona, optimized for wide-field imaging and spectroscopy, and in the 11m Southern African Large Telescope (SALT), the largest single aperture optical telescope in the Southern Hemisphere. The university is also a partner in the Sloan Digital Sky Survey IV, a massive spectroscopic survey of the distant Universe, nearby galaxies, and stars in the Milky Way. The department is actively involved in ASKAP and MEERKAT, precursor experiments for an array of radio telescopes one square kilometer in size.

The department has a long history of developing astronomical instrumentation for both ground and space-based facilities. Current efforts center on the development of a near-infrared arm for the Robert Stobie Spectrograph on SALT, and the design and testing of fiber bundle arrays for the Sloan Digital Sky Survey IV. UW scientists are also continuing to develop and operate the Wisconsin H-Alpha Mapper (WHAM), a uniquely powerful instrument dedicated to the study of the warm ionized gas in the Milky Way, and an innovative and highly successful Star Tracker for sounding rocket and balloon-borne experiments. Technical support is provided by in-house electronics and machine shops.

The theory group maintains a variety of facilities to support numerical simulations. The main workhorse is a 72-node, 576-core cluster optimized for tightly coupled problems, such as hydrodynamics and magneto-hydrodynamics. A number of smaller clusters are used for development, analysis and three-dimensional visualization.

ADMISSIONS

To enter as a graduate student, an applicant must have undergraduate preparation that includes at least three years of college physics and

mathematics through differential equations. Applicants are judged on the basis of previous academic record, letters of recommendation, personal statement, research experience, and Graduate Record Exam (GRE) scores. Admission is competitive and is for the fall only.

Applicants for admission must submit the following via the Graduate School online application:

- Transcripts of all undergraduate work
- Statement on reasons for graduate study in astronomy
- Three letters of recommendation from people well acquainted with past academic work
- Graduate Record Exam (GRE) scores (general test)
- International students must submit scores from the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS)

Financial support is provided through university fellowships (incoming graduate students only) or department assistantships. To compete for fellowships awarded by the university, students must submit all application materials (including the GRE scores) via the online Graduate School Application by December 31.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses

and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules.

Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 51 credits

Minimum Residence Credit Requirement 32 credits

Minimum Graduate Coursework Requirement Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements A GPA of at least 3.0 is required in the core (required) courses and a student may have no more than 3 credits of a C or below. A grade of S must be received in ASTRON 990 Research and Thesis before the preliminary examination can be taken.

Assessments and Examinations Students take a preliminary examination after completing their second academic year. Possible scores are "high pass," "low pass," and "fail." Students attaining a high pass are eligible to continue toward their Ph.D. Students obtaining a low pass may retake the exam or portions of the exam pending approval by the faculty. If this approval is not granted or students do not wish to retake the exam, they may complete the requirements for a terminal masters. Students who fail the exam will be dismissed from the program.

Doctoral candidates must submit a written dissertation proposal and make an oral presentation to the faculty by the end of their third academic year.

A written dissertation must be submitted and successfully defended before a faculty committee.

Language Requirements No language requirements.

Doctoral Minor / Breadth Requirements All doctoral students are required to complete a minor.

They may either meet the minor requirements set by an external department (typically physics), or they may choose a distributed minor. In the latter case 12 credits must be taken from two or more relevant departments outside of astronomy. The coursework will normally be at the 400 level and above although special exceptions may be made in the case where 300-level courses are needed to satisfy prerequisites. At least two courses must be completed in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide. Courses for the distributed minor or for minors outside of physics should be approved by the student's mentoring committee (or the graduate advisor if the mentoring committee has not yet been formed.)

REQUIRED COURSES

Code	Title	Credits
ASTRON 500	Techniques of Modern Observational Astrophysics	3
ASTRON 700	Basic Astrophysics I	2
ASTRON 702	Basic Astrophysics II	2
ASTRON 715	Stellar Interiors and Evolution	2
ASTRON 720	The Interstellar Medium I: Basic Processes	2
ASTRON 730	Galaxies	2
ASTRON 735	Observational Cosmology	2
ASTRON 990	Research and Thesis	1-12

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<http://www.astro.wisc.edu/grad-students/phd-program>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 34 credits of graduate coursework from other institutions. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

Up to 7 credits numbered 700 or above from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

With program approval, students are allowed to count no more than 15 credits of coursework numbered 400 or above taken as a UW–Madison Special student. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

PROBATION

A grade of C or lower in a core course will result in the student being placed on academic probation. This is removed after the next grade of B or better in a core course. Grades of C or lower in two or more core courses will result in dismissal.

A semester GPA below 3.0 will result in the student being placed on academic probation. This will be removed if the student attains a GPA of 3.0 or above in the subsequent semester.

ADVISOR / COMMITTEE

All students will be assigned a mentoring committee consisting of the student's advisor and two other faculty members. Students are strongly encouraged (but not required) to meet with their mentoring committees twice a year in the first two years and annually thereafter.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

OTHER

University fellowships or departmental assistantships are offered, contingent on satisfactory progress. The length of guaranteed student support is four continuous years for those with no prior graduate work. Three continuous years of funding are guaranteed for those with one year or more of prior graduate work. It is almost always the case that students remain fully funded through their thesis defense.

PROFESSIONAL DEVELOPMENT**GRADUATE SCHOOL RESOURCES**

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Demonstrate a broad understanding of core astrophysical topics including gravitational dynamics; radiative processes; the interstellar

medium; the formation, structure, and evolution of stars and galaxies; cosmology; and observational and numerical techniques.

2. Demonstrate academic mastery in their area of concentration, including a deep understanding of current theories, recent findings, and their broader implications.

3. Use their core knowledge and critical thinking skills to assess the work of others. They will examine the scientific literature, evaluate evidence for and against hypotheses, synthesize knowledge from disparate sources, and develop conclusions.

4. Evaluate scientific literature and use it to construct theoretical frameworks and testable predictions for their own research projects.

5. Participate in writing competitive proposals to use research facilities and to obtain research support.

6. Foster ethical and professional conduct.

7. Develop and complete original research that substantively advances a specific field of study. In so doing, they will cultivate their critical thinking skills, creativity, and independence.

8. Utilize modern instrumental, observational, or theoretical research techniques in their analysis.

9. Formulate ideas, designs, or techniques that advance the boundaries of knowledge within their field.

10. Critically evaluate the robustness and limits of conclusions drawn from their research and the potential for future studies.

11. Write clear and concise research articles for publication in refereed journals.

12. Deliver articulate oral presentations on their research to diverse audiences ranging from academic departments to the general public.

13. Work productively in a collaborative environment.

14. Serve as teaching assistants for at least one semester. Communicate scientific ideas in a clear and understandable manner, employ techniques that enhance student engagement, and develop and carry out assessments of student progress.

PEOPLE

Faculty: Professors Zweibel (chair), Barger, Bershad, Heinz, Lazarian, Mathieu, Stanimirovic, Wilcots; Associate Professor Townsend, Tremonti; Assistant Professors D'Onghia.

ATMOSPHERIC AND OCEANIC SCIENCES**DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES**

- Atmospheric and Oceanic Sciences, Doctoral Minor (p. 153)
- Atmospheric and Oceanic Sciences, M.S. (p. 153)

- Atmospheric and Oceanic Sciences, Ph.D. (p. 156)

PEOPLE

Faculty: Professors Tripoli (Dept. Chair), Ackerman, Desai, Hitchman, Holloway, Martin, Morgan, Petty, Vimont, Associate Professors Back, L'Ecuyer

ATMOSPHERIC AND OCEANIC SCIENCES, DOCTORAL MINOR

REQUIREMENTS

The graduate chair or any other professor in the Department of Atmospheric and Oceanic Sciences may serve as a minor professor on a Ph.D. committee. The graduate chair will certify that the minor course requirements have been met.

The minor requirement is 10 or more credits of any ATM OCN course at or above the 400 level. Overall GPA for the minor must be at least 3.0.

ATM OCN courses assume a prerequisite background in college physics (two semesters), calculus (three semesters), and chemistry (one semester).

PEOPLE

PROFESSORS

Ackerman, Steve

Desai, Ankur

Hitchman, Matt

Holloway, Tracey

Martin, Jonathan

Morgan, Morgan

Petty, Grant

Tripoli, Greg (Chair)

Vimont, Dan

ASSOCIATE PROFESSORS

Back, Larissa

L'Ecuyer, Tristan

ATMOSPHERIC AND OCEANIC SCIENCES, M.S.

The majority of our graduate students get an M.S. degree, which can be earned as part of the path toward a Ph.D. degree or earned as a terminal

degree opening significant opportunities within the public and private sectors.

The department currently has 11 faculty members, approximately 60 graduate students, and many staff members involved in large and energetic research programs. Particular strengths include climate/earth system science, geophysical fluid dynamics, remote sensing, planetary boundary layer, atmospheric chemistry, weather systems and prediction, and oceanography. Course concentrations within the existing degree program are offered in the areas of weather prediction, earth system science, remote sensing, and oceanography.

The department has close ties with the Center for Climatic Research, the Nelson Institute for Environmental Studies, Center for Sustainability and the Global Environment, Space Science and Engineering Center, Cooperative Institute for Meteorological Satellite Studies, National Weather Service, and the State Climatologist Office.

Job opportunities have been strong within the United States for people with graduate degrees in atmospheric and oceanic sciences. The government hires a large number of meteorologists with advanced degrees, as do many private forecasting companies and air quality consulting firms. In addition, there are openings for experts at various government and university research labs.

ADMISSIONS

ADMISSION REQUIREMENTS

Graduate Record Exam (GRE)

The general test is required. This includes verbal, quantitative and analytical parts.

Admitted students generally have quantitative scores of at least 151 (650 prior scale, 56% percentile), verbal reasoning scores of 152 (490 prior scale, 56% percentile) and analytical scores of 4.0 (48% percentile). Scores should not be older than five years.

Prerequisites for Graduate Work

Math—three semesters college calculus sequence for science/engineering majors plus differential equations

Physics—two semesters calculus-based general college physics

Chemistry—one semester general chemistry

A minimum undergraduate GPA of 3.0 is required for admission. The Graduate School computes the GPA based on approximately the last 60 semester hours (two years) of undergraduate work.

International students must submit scores from the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS).

Prior work in atmospheric or oceanic sciences is not required, but it is beneficial. Knowledge of computer programming is recommended.

Applications are also judged on academic record, letters of recommendation, prior research experience, and the statement of purpose.

Please see the ATM OCN website (<http://aoswebsite.aos.wisc.edu/academics/graduate/admission>) for additional information on admission requirements and the application process.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules.

Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS¹

Minimum Credit Requirement	M.S.–Thesis track: 30 credits M.S.–Non-thesis track: 36 credits
Minimum Residence Credit Requirement	M.S.–Thesis track: 16 credits M.S.–Non-thesis track: 19 credits
Minimum Graduate Coursework Requirement	M.S.–Thesis track: Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (https://registrar.wisc.edu/course-guide/). M.S.–Non-thesis track: Half of degree coursework (18 credits out of 36 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (https://registrar.wisc.edu/course-guide/).
Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	M.S.–Thesis track: A grade of B or greater is required for the 12 credits of lecture courses in the department numbered 400 or above. See "Courses Required" below.

The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations M.S.–Thesis track: A master's thesis is required, and must be approved by the major professor and two additional faculty members. A public oral presentation of presentation of the thesis research is required.

M.S.–Non-thesis track: A paper demonstrating technical writing skill is required. The student can write this paper by working individually with a professor in a directed research setting, or as part of a seminar class. The professor in charge of the directed study or seminar course indicates acceptance of the paper as evidence of technical writing skill by signing the paper.

Language Requirements No language requirements.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

REQUIRED COURSES

For both the thesis and non-thesis tracks¹ there is a set of six core courses which are highly recommended as a good foundation for graduate degrees in the Department of Atmospheric and Oceanic Sciences. A GPA of 3.0 must be maintained for both options.

The following is a listing of the core courses:

Code	Title	Credits
ATM OCN 610	Geophysical Fluid Dynamics I	3
ATM OCN 611	Geophysical Fluid Dynamics II	3
ATM OCN 630	Introduction to Atmospheric and Oceanic Physics	3
ATM OCN 640	Radiation in the Atmosphere and Ocean	3
ATM OCN 650	Analysis of Atmospheric Systems	3
ATM OCN 660	Introduction to Physical Oceanography	3

In consultation with their advisor, every student seeking a M.S. degree, will design a curriculum that must be approved by their advisor.

M.S.–Thesis track¹:

- 12 of the credits must be taken in the department as lecture courses numbered 400 or above. Seminars, research, independent study or directed reading courses do not satisfy this requirement. A grade of B or greater is required for these 12 credits.
- An additional 12 (at least) credits may be taken in or out of the department. These credits can include seminars, core courses, and other courses taken as a graduate student. Research credits do not count toward this requirement.
- Up to 6 research credits in the department can be counted (but are not required) toward the 30 credit requirement.

M.S.–Non-thesis track¹:

- At least 18 credits must be from courses numbered 400 or above in the department. Seminars, research, independent study or directed reading courses do not satisfy this requirement.
- An additional 6 (at least) credits must be from courses outside of the department. Seminars and research credits do not satisfy this requirement.
- A total of 30 credits must be taken from nonseminar courses. Research credits do not contribute to this requirement.
- Up to 6 credits can be from seminar courses in any department, from research in the atmospheric and oceanic sciences department only if approved by the student's advisor, or from independent study or directed reading in any department. Up to 2 of these 6 credits may be awarded for prior professional experience, or by an internship conducted as part of the M.S. program.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<http://aoswebsite.aos.wisc.edu/academics/graduate/handbook>) is the repository for all of the program's policies and requirements.

Prior Coursework

Graduate Work from Other Institutions

M.S.–Thesis track¹: With program approval, students are allowed to count no more than 14 credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree or earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

M.S.–Non-thesis track¹: With program approval, students are allowed to count no more than 17 credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree or earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

With program approval, students are allowed to count no more than 7 credits of graduate coursework taken as an undergraduate at UW-Madison, as long as those credits were not applied toward an undergraduate degree. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison University Special

With program approval, students are allowed to count no more than 15 credits of coursework numbered 300 or above taken as a UW–Madison Special student. Coursework earned five or more years prior to admission to a master's is not allowed to satisfy requirements.

PROBATION

A semester GPA below 3.0 will result in the student being placed on academic probation. If a semester GPA of 3.0 is not attained during the subsequent semester of full time enrollment (or 12 credits of enrollment if enrolled part-time) the student may be dismissed from the program or allowed to continue for 1 additional semester based on advisor appeal to the Graduate School.

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

Probation is based on student status. The status of a student can be one of three options:

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).

- Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

ADVISOR / COMMITTEE

All students are required to conduct a yearly progress report meeting with their advisor, scheduled by December 31 and completed by April 30. Failure to do so will result in a hold being placed on the student's registration.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

The M.S. degree should be completed within three years. For additional time constraints, please consult the Graduate School Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>).

OTHER

n/a

- These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

- Acquisition of a broad foundation of knowledge contained in our graduate-level core courses: ATM OCN 610 Geophysical Fluid Dynamics I, ATM OCN 611 Geophysical Fluid Dynamics II, ATM OCN 630 Introduction to Atmospheric and Oceanic Physics, ATM OCN 640 Radiation in the Atmosphere and Ocean, and ATM OCN 660 Introduction to Physical Oceanography.
- Have learned the historical origin and significance of certain issues central to the field by taking a special seminar course (ATM OCN 900 Seminar-Meteorology).
- Have developed a good problem-solving skill that prepares them to become efficient supporting scientists for research institutions or effective career atmospheric professionals in operational units of government or commercial institutions.
- Articulate, critique, or elaborate the theories, research methods, and approaches to inquiry or schools of practice in the field of study.
- Recognize and apply principles of ethical and professional conduct.

PEOPLE

PROFESSORS

Ackerman, Steve

Desai, Ankur

Hitchman, Matt

Holloway, Tracey

Martin, Jonathan

Morgan, Morgan

Petty, Grant

Tripoli, Greg (Chair)

Vimont, Dan

ASSOCIATE PROFESSORS

Back, Larissa

L'Ecuyer, Tristan

ATMOSPHERIC AND OCEANIC SCIENCES, PH.D.

A doctor of philosophy degree is offered with a major in atmospheric and oceanic sciences. Candidates may enter with a master's degree or, for more qualified students, directly after earning a bachelor's degree.

In atmospheric and oceanic sciences, classical physics is applied to describe the behavior of the fluids that compose the atmosphere/ocean/earth system. Influences of solar and terrestrial radiation, clouds and storms, natural and anthropogenic pollution, dynamical forces and turbulence can affect both the weather and longer climatic variations. The department uses computer simulations, passive and active remote sensing, in situ weather instruments, and laboratory experiments to study atmospheric phenomena.

The department has 11 faculty members, approximately 60 graduate students, and many staff members involved in large and energetic research programs. Particular strengths include climate/earth system science, geophysical fluid dynamics, remote sensing, planetary boundary layer, atmospheric chemistry, weather systems and prediction, and oceanography. Course concentrations within the existing degree program are offered in the areas of weather prediction, earth system science, remote sensing, and oceanography.

Course and research emphasis of the department's oceanographic component is in physical oceanography, ocean-atmosphere climate dynamics, and marine geochemical cycles. A concentration of courses in oceanography can be used to satisfy the atmospheric and oceanic sciences doctoral minor.

The department has close ties with the Center for Climatic Research, the Nelson Institute for Environmental Studies, Center for Sustainability and the Global Environment, Space Science and Engineering Center,

Cooperative Institute for Meteorological Satellite Studies, National Weather Service, and the State Climatologist Office.

Financial assistance is available to qualified students. The typical sources of funding are research and teaching assistantships. All applicants are considered for any available assistantships. Financial aid is handled separately from admission in the department. Students generally hear about their admission status well before any decision about financial aid is made.

Job opportunities have been strong within the United States for people with graduate degrees in atmospheric and oceanic sciences. The government hires a large number of meteorologists with advanced degrees, as do many private forecasting companies and air quality consulting firms. In addition, there are openings for experts at various government and university research labs.

ADMISSIONS

ADMISSION REQUIREMENTS

Graduate Record Exam (GRE)

The general test is required. This includes verbal, quantitative and analytical parts.

Admitted students generally have quantitative scores of at least 151 (650 prior scale, 56% percentile), verbal reasoning scores of 152 (490 prior scale, 56% percentile) and analytical scores of 4.0 (48% percentile). Scores should not be older than five years.

Prerequisites for Graduate Work

Math—three semesters college calculus sequence for science/engineering majors plus differential equations

Physics—two semesters calculus-based general college physics

Chemistry—one semester general chemistry

A minimum undergraduate GPA of 3.0 is required for admission.

International students must submit scores from the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS).

Prior work in atmospheric or oceanic sciences is not required, but it is beneficial. Knowledge of computer programming is recommended.

Applications are also judged on academic record, letters of recommendation, prior research experience, and the statement of purpose. PhD students must have an advisor identified before they can be recommended for admission.

For additional information on apply for admission, please go to the AOS website. (<http://aoswebsite.aos.wisc.edu/academics/graduate/admission>)

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Financial assistance is available to qualified students. The typical sources of funding are research and teaching assistantships. All applicants are considered for any available assistantships. Financial aid is handled separately from admission in the department. Students generally hear about their admission status well before any decision about financial aid is made.

Prospective students should see the ATM OCN website (<http://aoswebsite.aos.wisc.edu/academics/graduate/stipends-fees>) for additional funding information.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 51 credits

Minimum Residence Credit Requirement 32 credits

Minimum Graduate Coursework Requirement Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements All grades must be C or better to count towards the degree.

The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades.

Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Students wishing to pursue a Ph.D. are required to take a qualifying examination prior to forming a Ph.D. committee (see above regarding the formation of a Ph.D. committee). For more information about the qualifying examination, please consult the department's Qualifying Exam FAQs (http://www.aos.wisc.edu/education/Qual_ExamFAQ.html).

Ph.D. students are required to complete a preliminary examination by the Ph.D. committee prior to becoming a Ph.D. candidate. Prior to the preliminary examination the student works with the major professor to define an appropriate research topic. This topic is written into a several page research proposal that is given to the Ph.D. committee members a few weeks prior to the preliminary examination.

Language Requirements No language requirements.

Doctoral Minor/Breadth Requirements All doctoral students are required to complete two broadening requirements: a minor, and a supplemental requirement.

Minor requirement:

A minor program consists of Option A (external) 10 or more course credits in one discipline or Option B (distributed) 10 or more credits in one or more departments and can include coursework in the major department. Selection of Option A requires approval of the minor department. Selection of Option B requires approval of the major department. The department monitors minor requirements.

Supplemental requirement:

The supplemental requirement is specified by the Ph.D. committee during the first Ph.D. committee meeting. Examples include (but are not limited to): an augmented minor, substantial foreign language skill, significant professional or field experience, or interdisciplinary coursework.

REQUIRED COURSES

At least 15 credits are from lecture courses numbered 600 or above in the department. Seminars, research credits, and audited courses are not included.

An additional 10 (at least) credits are taken to satisfy the minor requirement (see below). These credits may be from the department, but cannot be used to satisfy the first requirement (15 credits from lecture courses numbered 600 or above in the department).

Students are required to take ATM OCN 900 Seminar-Meteorology.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<http://aoswebsite.aos.wisc.edu/academics/graduate/handbook>) is the repository for all of the program's policies and requirements.

Prior Coursework

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 19 credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

With program approval, students are allowed to count no more than 7 credits of graduate coursework taken as an undergraduate at UW–Madison, as long as those credits were not applied toward an undergraduate degree. Coursework earned five or more years prior to admission to a master's degree or earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison University Special

With program approval, students are allowed to count no more than 15 credits of coursework numbered 300 or above taken as a UW–Madison Special student. Coursework earned five or more years prior to admission to a master's degree or earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

All students are required to conduct a yearly progress report meeting with their thesis committee after passing the preliminary examination.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

The Ph.D. degree should be completed within five years after establishing a Ph.D. committee. For additional time constraints please consult the Graduate School Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>).

OTHER

n/a

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Have an in-depth knowledge of the fields that are relevant to their research areas by taking appropriate courses not only in atmospheric and oceanic sciences, but also in related disciplines including mathematics, statistics, physics, and engineering.
2. Ask the right scientific questions: What are the important scientific problems in this field? Can a problem be solved by the available resources in a reasonable time? How to design a scientific approach to tackle the problem?
3. Read original papers of their research field to understand how previous investigators approach the problem and how they can improve on previous results.
4. Articulate research problems, potentials, and limits with respect to theory, knowledge, or practice within the field of study.
5. Formulate ideas, concepts, designs, and/or techniques beyond the current boundaries of knowledge within the field of study.
6. Fosters ethical and professional conduct.

PEOPLE

PROFESSORS

Ackerman, Steve

Desai, Ankur

Hitchman, Matt

Holloway, Tracey

Martin, Jonathan

PROBATION

A semester GPA below 3.0 will result in the student being placed on academic probation. If a semester GPA of 3.0 is not attained during the subsequent semester of full time enrollment (or 12 credits of enrollment if enrolled part-time) the student may be dismissed from the program or allowed to continue for 1 additional semester based on advisor appeal to the Graduate School.

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

Probation is based on student status. The status of a student can be one of three options:

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

ADVISOR / COMMITTEE

A Ph.D. committee is required in order to become a Ph.D. student. The student, under the guidance of the major professor, must form a committee of five professors consisting of the major professor, three other professors from our department, and one professor from outside the department (often from the minor department). Additional members may be added, if appropriate. Adjunct faculty can be included among the five committee members. If the committee dissolves for any reason, the candidate cannot continue in the Ph.D. program unless a new committee is formed.

The first meeting of the Ph.D. committee should normally occur after the student completes the qualifying examination, but within the same semester as the qualifying examination. Potential committee members, in deciding whether to form a Ph.D. committee, use results from the qualifying examination as well as additional information about a student's suitability for pursuing a Ph.D.

Morgan, Morgan

Petty, Grant

Tripoli, Greg (Chair)

Vimont, Dan

ASSOCIATE PROFESSORS

Back, Larissa

L'Ecuyer, Tristan

BACTERIOLOGY

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Bacteriology, M.S. (p. 160)
- Microbiology, Doctoral Minor (p. 163)
- Microbiology, M.S. (p. 163)
- Microbiology, Ph.D. (p. 165)

PEOPLE

Faculty: Professors Charles Kaspar (chair), Jean-Michel Ané, Cameron Currie, Timothy Donohue, Marcin Filutowicz, Katrina Forest, Richard Gourse, Eric Johnson, Katherine McMahon, Michael Thomas, Jade (Jue) Wang, Karen Wassarman, Jae-Hyuk Yu; Associate Professor Garret Suen; Assistant Professors Daniel Amador-Noguez, Karthik Anantharaman, Briana Burton, Federico Rey, Kalin Vetsigian. In addition, many faculty members from other departments supervise training of graduate students.

BACTERIOLOGY, M.S.

The primary goal of the master of science (M.S.) degree program is to give students a solid understanding of the scientific process and to provide the opportunity to obtain advanced training in microbiology. The master's degree is the terminal degree in this program, and completion of this degree does not allow automatic admission to a Ph.D. program.

This program provides the opportunity to tailor a curriculum of advanced coursework and research to fit the needs of each student, with two different tracks (coursework or research tracks, see below). Students may acquire a general overview of microbiology or may focus on a specialized subject area in microbiology such as bacterial physiology, molecular microbiology, food microbiology, environmental microbiology, biotechnology or medical microbiology. The self-tailored program must meet the requirements of the Department of Bacteriology and the Graduate School for the M.S. degree. Full-time students can expect to complete the M.S. degree in about two years. The M.S. program also can accommodate part-time students with consequent increased time to degree.

The coursework track serves students who want to acquire knowledge about current topics in microbiology primarily in a classwork setting. Examples of students who benefit from this track are those currently

employed in research, clinical, or biotechnology labs seeking an advanced degree; lawyers and law students who wish to specialize in biotechnology or environmental law; and students preparing for health professions.

The research track serves students who seek to improve scientific research skills. This track is chosen by laboratory technicians who want advanced technical training; students seeking laboratory skills for employment; and students who desire laboratory experience and advanced coursework before applying to Ph.D. programs.

ADMISSIONS

APPLICATION DEADLINES

- To begin fall semester:
 - Early deadline: March 1 (notification by April 1)
 - Regular deadline: June 1 (notification by July 1)
- To begin spring semester:
 - Deadline: October 15 (notification by November 15)

Although students may apply to begin the program in any semester, summer application is not encouraged. Students pursuing the research option who have found a lab in which to carry out their research may apply for summer admission. Students who plan to pursue the coursework option will be considered for summer admission only if they need to take a prerequisite or general requirement course that is offered in the summer.

MINIMUM COURSEWORK FOR ADMISSIONS

Students applying to the program should have taken some or all of these courses prior to admission to the program for either coursework or research tracks. Students may correct deficiencies (up to 6 credits) after admission, but these credits do not apply toward the credits of coursework required for the degree, and all deficiencies must be absolved before completion of the master's degree.

- Biology: two semesters
- Chemistry: four semesters of chemistry including two organic with lab component
- Math: one course in math beyond algebra/trigonometry such as calculus, statistics, or computer science
- Physics: two semesters; exceptions will be considered.

The Graduate Record Examination (GRE) is not required for admission to the M.S. program, but scores may be submitted. International students whose undergraduate instruction was not in English must provide evidence of English proficiency by taking the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS).

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Financial aid for students in the M.S. program is not available from the department. Some M.S. students in the research track are supported through their research advisor, but such support is available on a very limited basis.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum
Credit
Requirement

Minimum Residence Credit Requirement	22 credits
Minimum Graduate Coursework Requirement	Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (https://registrar.wisc.edu/course-guide/).
Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.
Assessments and Examinations	Contact the program for information on required assessments and examinations.
Language Requirements	n/a

REQUIRED COURSES

The following courses (or equivalent) are required for completion of the M.S. degree for both the coursework and research tracks, and may be fulfilled by courses taken prior to entrance to the M.S. program or as part of the M.S. program.

Code	Title	Credits
MICROBIO 303	Biology of Microorganisms	3
MICROBIO 526	Physiology of Microorganisms	3
MICROBIO 470	Microbial Genetics & Molecular Machines	3
BIOCHEM 501 or BIOCHEM 507 or BIOCHEM 508	Introduction to Biochemistry General Biochemistry I General Biochemistry II	3-4

There are two tracks for the M.S. degree: one involving primarily formal coursework with no research requirement (coursework option (https://bact.wisc.edu/pro_ms.php?i=ms3)), and the other requiring significant laboratory research with a formal written component describing and analyzing the work performed (research option (https://bact.wisc.edu/pro_ms.php?i=ms4)).

Coursework Track ¹

- At least nine credits of formal coursework must be at the 600 level or above.
- Research (990), special problems (699, 999), and coordinative internship (399) credits may constitute up to nine credits of the 30 required, but cannot be used to satisfy the requirement for nine credits of formal coursework at the 600 or above level.
- General coursework requirements (see above), can be counted towards the 30 credits if taken after entering the program.
- Seminar credits and one-credit courses graded solely on attendance / participation will NOT count toward the 30 credits.
- Students may request to have up to eight graduate microbiology or biochemistry course credits taken prior to entering the MS program

apply toward the 30-credit minimum. The student must provide verification that those credits were not used to satisfy any degree, major, or University requirements from any prior degree they have earned. Decisions are made by the M.S. program advisor.

¹ Note: These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Research Track ¹

- At least ten credits of formal graduate-level coursework is required; five of these credits must meet at least one of the following criteria.
 - a. Graduate course at the 600 level or above
 - b. Courses that otherwise adhere to the Graduate School definition of Graduate level classes (courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide>)).
 - c. By approval of M.S. program advisor. See below for a list of commonly-taken courses.
- A minimum of 12 credits of independent research is required, although more are strongly encouraged.
- Seminar credits and one-credit courses graded solely on attendance / participation will NOT count toward the 30 credits.
- Students may request to have up to three graduate microbiology or biochemistry course credits taken prior to entering the MS program apply toward the 10-credit minimum. The student must provide verification that those credits were not used to satisfy any degree, major, or University requirements from any prior degree they have earned. Decisions are made by the M.S. program advisor.

¹ Note: These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Courses commonly taken by students in the Research Track:

Code	Title	Credits
MICROBIO/ GENETICS 607	Advanced Microbial Genetics	3
MICROBIO/ BIOCHEM/ GENETICS 612	Prokaryotic Molecular Biology	3
MICROBIO 625	Advanced Microbial Physiology	3
MICROBIO 632	Industrial Microbiology/ Biotechnology	2
MICROBIO/ BMOLCHEM 668	Microbiology at Atomic Resolution	3
MICROBIO 710	Microbial Symbiosis	3
MICROBIO/ BIOCHEM 726	Regulation of Gene Expression in Prokaryotes	3
MICROBIO/M M & I/ PATH-BIO 790	Immunology of Infectious Disease	3
MICROBIO 875	Special Topics (Topic: Bioinformatics for Microbiologists)	1-4
M M & I/MICROBIO/ PATH-BIO 528	Immunology	3

M M & I/ POP HLTH 603	Clinical and Public Health Microbiology	5
BIOCHEM 601	Protein and Enzyme Structure and Function	2
BIOCHEM/ GENETICS/ MD GENET 620	Eukaryotic Molecular Biology	3
STAT/F&W ECOL/ HORT 571	Statistical Methods for Bioscience I	4
ZOOLOGY 430	Comparative Anatomy of Vertebrates	5

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With permission of the program advisor, up to 8 graduate course credits from another university may be applied toward the credit requirements.

UW–Madison Undergraduate

No credits from the UW–Madison undergraduate degree may count toward the credit requirements.

UW–Madison University Special

No credits from the UW–Madison University Special student career may count toward the credit requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects students to meet with their advisor on a regular basis.

CREDITS PER TERM ALLOWED

15 credits (recommended: only 8–10 credits per semester, or 4–5 credits per summer term)

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

The M.S. in Bacteriology program does not provide funding for any student in the program and financial support for master's students is limited. Because the program is flexible, students are able to work part or full-time at jobs on or off campus while enrolled. Students in the research option may be paid as research assistants by their research mentor if funds are available.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. The department's goal is to ensure that every student demonstrates understanding of the central principles of microbiology and the necessary skills for a professional career in microbiology.
2. The department's goal is to ensure that every student demonstrates the ability to articulate and critique the approaches and findings in the microbiology literature.
3. The department's goal is to ensure that every student demonstrates capability to identify sources, generate, and assemble data or evidence pertaining to questions in microbiology.
4. The department's goal is to ensure that every student demonstrates effective writing and speaking skills.
5. The department's goal is to ensure that every student demonstrates personal and professional ethics.

PEOPLE

Faculty: Professors Charles Kaspar (chair), Jean-Michel Ané, Cameron Currie, Timothy Donohue, Marcin Filutowicz, Katrina Forest, Richard Gourse, Eric Johnson, Katherine McMahon, Michael Thomas, Jade (Jue) Wang, Karen Wassarman, Jae-Hyuk Yu; Associate Professor Garret Suen; Assistant Professors Daniel Amador-Noguez, Karthik Anantharaman, Briana Burton, Federico Rey, Kalin Vetsigian. In addition, many faculty members from other departments supervise training of graduate students.

MICROBIOLOGY, DOCTORAL MINOR

REQUIREMENTS

The minor in microbiology requires 10 credits of courses at the 300 level or above offered by the departments of Medical Microbiology and Immunology (M M & I courses (http://guide.wisc.edu/courses/m_m_i)) or Bacteriology (MICROBIO courses (<http://guide.wisc.edu/courses/microbio>)). At least half of the credits must come from the Microbiology Doctoral Training Program (MDTP) course list (p. 166). At least one member of the student's thesis committee must be faculty in either the bacteriology or medical microbiology and immunology departments, and will serve as the student's minor advisor.

PEOPLE

Faculty: Professors Nancy Keller (program director, Medical Microbiology and Immunology), and Garret Suen (vice-director, Bacteriology) lead the current MDTP Steering Committee. For a list of more than 90 participating faculty, see the program website (<http://www.microbiology.wisc.edu>) or contact the program office.

MICROBIOLOGY, M.S.

This award is a non-admitting, terminal degree for Ph.D. students in Microbiology (p. 165) who have completed appropriate coursework but leave the program prior to completion of the doctorate degree requirements.

ADMISSIONS

This master's program is offered for work leading to the Ph.D. Students may not apply directly for the master's, and should instead see the admissions information for the Ph.D (p. 165).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Contact the program for information on required assessments and examinations.

Language Requirements Contact the program for information on any language requirements.

REQUIRED COURSES

Students can only earn the M.S. in Microbiology on the path to the Ph.D. Please refer to the course requirements for the Ph.D. (p. 166)

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (https://microbiology.wisc.edu/students_current.php) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

For well-prepared advanced students, the program may accept prior graduate coursework from other institutions toward the minimum graduate degree credit and minimum graduate coursework (50%) requirement. The minimum graduate residence credit requirement can be satisfied only with courses taken as a graduate student at UW–Madison. Coursework earned more than five years prior to admission to the master's degree may not be used to satisfy requirements.

UW–Madison Undergraduate

For well-prepared advanced students, the program may decide to accept up to 7 credits numbered 300 or above completed at UW–Madison toward fulfillment of minimum degree and minor credit requirements. This work would not be allowed to count toward the 50% graduate coursework minimum unless taken at the 700 level or above. Coursework earned more than five years prior to admission to the master's degree may not be used to satisfy requirements.

UW–Madison University Special

The program may decide to accept up to 15 University Special student credits as fulfillment of the minimum graduate residence, graduate degree, or minor credit requirements on occasion as an exception (on a case-by-case basis). UW–Madison coursework taken as a University Special student would not be allowed to count toward the 50% graduate coursework minimum unless taken at the 700 level or above. Coursework earned more than five years prior to admission to the master's degree may not be used to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

We offer funding to all students in the program through fellowships, trainees and research assistantships.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Demonstrate a scientific understanding of the field of microbiology and/or immunology.
2. Identify and utilize scientific methodologies and practices appropriate to the field of study.
3. Articulate scientific theories, methodologies and research approaches in microbiology and/or immunology.
4. Identify sources and assemble evidence pertaining to questions or challenges in the field of microbiology and/or immunology.
5. Evaluate and synthesize information pertaining to questions or challenges in the field of microbiology and/or immunology.
6. Communicate clearly in ways appropriate to the field of scientific study.
7. Recognize, understand and apply principles of ethical and professional conduct appropriate to the field of study.

8. Understand and apply principles of laboratory safety in the field of study.

PEOPLE

Faculty: Professors Garret Suen (program director, Bacteriology), and JD Sauer (vice-director, Medical Microbiology and Immunology) lead the current MDTP Steering Committee. For a list of more than 90 participating faculty, see the program website (<http://www.microbiology.wisc.edu>) or contact the program office.

MICROBIOLOGY, PH.D.

The Department of Bacteriology in the College of Agricultural and Life Sciences and the Department of Medical Microbiology and Immunology in the School of Medicine and Public Health (see separate course listings) administer the interdepartmental microbiology doctoral training program (MDTP). Incoming students have the opportunity to do laboratory rotations with any of the primary faculty, affiliate faculty, and trainers from multiple departments. This group includes more than 90 faculty members in numerous departments and programs involved in microbiology research and graduate training. In addition to this breadth of opportunities in microbiology research training, the program also encompasses graduate courses offered by both departments.

The Department of Bacteriology and the Department of Medical Microbiology and Immunology offer Ph.D. degrees through the microbiology doctoral training program. The Department of Bacteriology in the College of Agricultural and Life Sciences and the Department of Medical Microbiology and Immunology in the School of Medicine and Public Health serve as lead departments for the joint cross-campus microbiology doctoral training program.

Incoming students have the opportunity to do laboratory rotations with any of the primary faculty, affiliate faculty, or trainers from multiple departments. This group includes more than 90 faculty members in numerous departments and programs involved in microbiology research and graduate training. In addition to this breadth of opportunities in microbiology research training, the program encompasses graduate courses offered by both departments. Please refer to the separate Microbiology listing in this catalog for more detailed information, or visit the program website.

The Ph.D. program prepares graduates for research and teaching positions in universities and colleges, for industry or government, and for clinical microbiology.

Research emphasis includes, but is not limited to, prokaryotic (bacteria and archaea), viral and lower eukaryotic systems (fungi, oomycetes, and parasites); antibiotics and antibiotic resistance, biofilm formation; bioinformatics and computational biology; biotechnology and industrial microbiology, including biofuels; cell–cell signaling; cell motility and chemotaxis; DNA, including nucleic acid synthesis, DNA replication and recombination; food microbiology; fungal development, pathogenesis, and metabolism; gene expression and its regulation; immunology; microbial physiology and metabolism; macrophage activation and other cell immune systems; mechanisms of microbial persistence; mechanisms of pathogenesis; microbial cell division; microbial ecology; microbial microbiota and metagenomics; nitrogen fixation; quorum sensing; RNA, including molecular structure–function relationships of transfer RNA, small RNAs, RNA polymerase, and other components

of transcription and translation; secondary metabolism; structural microbiology; symbioses, including host–microbe symbioses, plant–microbial interactions, animal–microbial interactions, microbe–microbe interactions; and virology, including host–virus interactions. Dissertation research emphasizes creative and innovative problem-solving using basic knowledge acquired through scientific interactions and collaborations in addition to a thorough understanding of the scientific literature.

In order to better train MDTP students for microbiology-related professions, students need a chance to gain knowledge and experience not just in academic research, but also in other fields where their microbiology education may be put to good use.

The professional development options encompass many professional development opportunities for MDTP students beyond academic research and teaching. Opportunities for professional development can consist of course work, an internship, a summer workshop, outreach experiences, or a second teaching-practicum experience.

DOUBLE DEGREE

Students may complete a double Ph.D. degree in MDTP and another program on campus under the following conditions. The student must apply for admission to MDTP by the program's yearly deadline and be admitted using the same criteria applied to other applicants. The student must complete all requirements of the MDTP program in addition to the requirements for the other program sponsoring the double degree. The student must pass a different preliminary examination in each program. The student's dissertation committee and preliminary examination must adhere to MDTP guidelines. The Ph.D. advisor must be a trainer in the MDTP. A significant portion of the student's dissertation research must be completed in the laboratory of the Ph.D. advisor. The student's program, including any deviations, must be approved by the steering committee.

ADMISSIONS

Admission to MDTP is highly competitive. To qualify for admission to the microbiology program, an applicant should have a bachelor's degree from an accredited institution with a GPA of at least 3.0 (on a 4.0 scale) that includes two semesters of biology (can include microbiology); one semester of genetics; four semesters of chemistry, including two semesters of organic chemistry with lab component; one semester of biochemistry; two semesters of physics; and two semesters of calculus or one semester of calculus and one semester of statistics. Deficiencies in excess of 6 semester credits should be removed before enrollment. An online application must be accompanied by a thoughtful essay, strong letters of recommendation from three persons who are familiar with the applicant's academic ability and who can assess the applicant's potential for a research career, transcripts from all undergraduate and graduate institutions attended, and an academic resume or CV. Previous research experience is strongly recommended. Students whose undergraduate degree was obtained in an institution in which English was not the primary language of instruction must provide evidence of English proficiency by taking the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS) exam.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have

researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Research assistantships are available for most students from department and college-level funding sources or from competitive fellowship and traineeship awards, with continued support contingent upon adequate progress in classes and research. Applicants with outstanding records will be nominated for special fellowships or for traineeships on one of several NIH training grants awarded to UW–Madison.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules.

Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement	51 credits
Minimum Residence Credit Requirement	32 credits
Minimum Graduate Coursework Requirement	Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle).
Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.
Assessments and Examinations	Doctoral students are required to take a comprehensive preliminary/oral examination after they have cleared their record of all Incomplete and Progress grades (other than research and thesis). Deposit of the doctoral dissertation in the Graduate School is required.
Language Requirements	Contact the program for information on any language requirements.
Doctoral Minor/Breadth Requirements	All doctoral students are required to complete a minor.

REQUIRED COURSES

Code	Title	Credits
Required Courses		
MICROBIO 731	Seminar	1
MICROBIO 810	Current Issues in Microbiology	1
MICROBIO 811	Advanced Problems in Microbiology	1
MICROBIO 901	Advanced Seminar	1
Core Courses		
Students usually pick two:		
MICROBIO 526	Physiology of Microorganisms	3
MICROBIO/ GENETICS 607	Advanced Microbial Genetics	3
MICROBIO/ BIOCHEM/ GENETICS 612	Prokaryotic Molecular Biology	3
MICROBIO/ ONCOLOGY/ PL PATH 640	General Virology-Multiplication of Viruses	3
MICROBIO/BOTANY/ GENETICS/M M & I/ PL PATH 655	Biology and Genetics of Fungi	3
MICROBIO/ BMOLCHEM 668	Microbiology at Atomic Resolution	3

MICROBIO/ M M & I 740	Mechanisms of Microbial Pathogenesis	3
MICROBIO/M M & I/ PATH-BIO 790	Immunology of Infectious Disease	3
MICROBIO 875	Special Topics	1-4
Research Credits		
M M & I 990 or MICROBIO 990	Research and Thesis Research	1-12

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (https://microbiology.wisc.edu/students_current.php) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, up to 9 credits of coursework may be accepted from other graduate institutions. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW-Madison Undergraduate

For well-prepared advanced students, the program may decide to accept up to 6 credits numbered 300 or above completed at UW-Madison toward fulfillment of minimum degree and minor credit requirements. This work would not be allowed to count toward the 50% graduate coursework minimum unless taken at the 700 level or above. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW-Madison University Special

The program may decide to accept up to 9 University Special student credits as fulfillment of the minimum graduate residence, graduate degree, or minor credit requirements on occasion as an exception (on a case-by-case basis). UW-Madison coursework taken as a University Special student would not be allowed to count toward the 50% graduate coursework minimum unless taken at the 700 level or above. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could

result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies. An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor.

To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis. A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

OTHER

We offer funding to all students in the program through fellowships, trainees and research assistantships.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PROGRAM RESOURCES

Purpose: To prepare MDTP students for microbiology related careers.

Background. In order to better train MDTP students for microbiology-related professions, the Students need a chance to gain knowledge and experience not just in academic research, but also in other fields where their microbiology education may be put to good use.

The Delta Program in teaching has been a great asset to MDTP students interested in teaching as a career, allowing students to take classes and gain experience in teaching. Successful students are granted a certificate from the Delta Program, and this achievement and experience likely make the students more attractive for teaching positions.

Professional Development Options. With this plan we are expanding professional development opportunities for MDTP students beyond

academic research and teaching. Opportunities for professional development can consist of coursework, an internship, a summer workshop, outreach experiences, or a second teaching practicum experience.

Courses. The Graduate School has agreed to allow MDTP dissertator students to enroll in courses from a limited list of classes appropriate for professional development of MDTP students. Students would take one or two courses in an area of interest after they become dissertators. Additional courses may be added to this list if they are appropriate for MDTP students and are approved for this purpose by the Graduate School.

Teaching practicum. A second semester of teaching practicum may be the most appropriate training for students that seek a career in academic research and teaching. If students do not arrange for other professional development activities, the default professional development training would be a second semester of teaching in a teaching practicum.

Summer courses or workshops. For students most interested in continuing in academic research, one or more summer courses or workshops may be the most appropriate training. Examples of such courses are those that cover research areas or methods or scientific writing or grant preparation.

Internship. As an alternative to class work or a second semester of teaching practicum, MDTP students could participate in an internship with a business or other organization. Students doing internships would have to arrange to be paid through the organization, and they would not be paid by their advisors while away from their research.

Requirement. In order to ensure that MDTP students are allowed to participate in the Professional Development opportunities, their participation will be required. Students will be required to perform a second semester of teaching practicum, carry out an internship for as long as one semester, take at least 2 credits of coursework from the list of approved classes or through the Delta Program, or perform other professional development activities equivalent to 2 semester hours of coursework as judged by the thesis committee. The thesis committee must give approval for the student to participate in the chosen professional development activity. Thesis committees will also determine if each student has met the requirement. Students should complete the professional development requirement by the end of the fourth year. This requirement will go into effect with the MDTP class entering in fall 2011.

**Refer to the Professional Development Opportunities document. (http://www.microbiology.wisc.edu/docs/downloads/Professional_Development_Opportunities.pdf)

LEARNING OUTCOMES

1. Gain a broad understanding of the microbiology principles that underlie all biological processes.
2. Articulate, discuss and define limits to the theory and knowledge in microbiology.
3. Think critically to address research challenges using a broad range of the theories, research methods, and approaches to scientific inquiry.
4. Communicates complex ideas in a clear and understandable matter.

5. Collaborate with investigators within the program, university, and beyond to advance the science of microbiology.
6. Foster professional and ethical conduct in the sciences.
7. Ethical design of experimental protocols.
8. Reproducibility of experimental results.
9. Professional behavior in industrial, government and academic settings.
10. Develop communication skills that enable the articulation of research to fellow scientists and non-scientists.
11. Develop teaching and mentoring skills in both lecture and laboratory settings.
12. Explore career development opportunities in industry, government, academia and private industry to realize professional goals.

PEOPLE

Faculty: Professors Garret Suen (program director, Bacteriology), and JD Sauer (vice-director, Medical Microbiology and Immunology) lead the current MDTP Steering Committee. For a list of more than 90 participating faculty, see the program website (<http://www.microbiology.wisc.edu>) or contact the program office.

BIOCHEMISTRY

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Biochemistry, Doctoral Minor (p. 169)
- Biochemistry, M.S. (p. 170)
- Biochemistry, Ph.D. (p. 172)

PEOPLE

Faculty: Professors B. Fox (Chair, Department of Biochemistry), Kiley (Chair, Department of Biomolecular Chemistry), Amasino, Ansari, Attie, Audhya, Bednarek, Brow, Butcher, Chanda, Clagett-Dame, Coon, Cox, Craciun, Craig, Denu, Dvinge, Engin, C. Fox, Friesen, Harrison, Hayes, Henzler-Wildman, Holden, Hoskins, Hull, Keck, Kimble, Landick, Lewis, Markley, Martin, Merrins, Mitchell, Mosher, Ntambi, Pagliarini, Palmenberg, Pike, Ralph, Raman, Rayment, Record, Romero, Senes, Sheets, Sussman, Venturelli, Wang, Weibel, Wickens, Wildonger

BIOCHEMISTRY, DOCTORAL MINOR

Biochemistry is the study of biological molecules, their roles in the cell, and the chemistry of their reactions in living systems. The Integrated Program in Biochemistry (IPIB) is the merged graduate program between the Department of Biochemistry (in the College of Agricultural and Life Sciences) and the Department of Biomolecular Chemistry (in the School of Medicine and Public Health). The program trains the next generation of biochemists and prepares them for 21st century challenges in science.

ADMISSIONS

Candidates should have an undergraduate degree in biochemistry, chemistry, physics, or one of the biological or medical sciences. A minimum GPA of 3.0 (on a 4.0 scale) is required. In addition to meeting the general requirements of the Graduate School, coursework in biochemistry, physics, organic chemistry, and physical chemistry is required. The student can make up any course deficiencies during the first two years of graduate study.

A student must identify a member of the IPIB faculty to serve as the minor advisor. The minor advisor will advise the student on his or her minor program, and serve as a member of the student's thesis committee.

REQUIREMENTS

For a minor in biochemistry, a Ph.D. candidate must complete a required course series and earn a total of 16 graduate-level credits in advanced biochemistry courses (600 level or above).

Code	Title	Credits
General Biochemistry Course Requirements ¹		
Students must complete Series 1 or Series 2:		
<i>Series 1</i>		
BIOCHEM 507	General Biochemistry I	3
BIOCHEM 508	General Biochemistry II	3-4
<i>Series 2</i>		
A total of 6 credits selected from 600- / 700- level courses with approval of the ECC		
Additional Biochemistry Courses		10

Additional courses to bring the credit total to 16 are selected from advanced biochemistry courses (600 level or above).

¹ Students with good preparation in chemistry will preferably select courses from Series 2 to meet this General Biochemistry Course Requirement.

POLICIES

Transfer credit toward the Minor Option A in Biochemistry may be given for biochemistry courses taken while at another graduate institution. Students should consult with their minor advisor and with the ECC for approval of these transfer credits. Transfer of 6 semester credits is the maximum allowed by IPIB.

PEOPLE

Faculty: Professors B. Fox (Chair, Department of Biochemistry), Kiley (Chair, Department of Biomolecular Chemistry), Amasino, Ansari, Attie, Audhya, Bednarek, Brow, Butcher, Chanda, Clagett-Dame, Coon, Cox, Craciun, Craig, Denu, Dvinge, Engin, C. Fox, Friesen, Harrison, Hayes, Henzler-Wildman, Holden, Hoskins, Hull, Keck, Kimble, Landick, Lewis, Markley, Martin, Merrins, Mitchell, Mosher, Ntambi, Pagliarini, Palmenberg,

Pike, Ralph, Raman, Rayment, Record, Romero, Senes, Sheets, Sussman, Venturelli, Wang, Weibel, Wickens, Wildonger

BIOCHEMISTRY, M.S.

Biochemistry is the study of biological molecules, their roles in the cell, and the chemistry of their reactions in living systems. The Integrated Program in Biochemistry (IPiB) is the merged graduate program between the Department of Biochemistry (in the College of Agricultural and Life Sciences) and the Department of Biomolecular Chemistry (in the School of Medicine and Public Health). The program trains the next generation of biochemists and prepares them for 21st century challenges in science. IPiB offers a Ph.D. degree with a major in biochemistry. Although an M.S. degree is officially offered, students are not admitted for a terminal master's degree.

From atoms and cells to plants and animals, biochemistry research in IPiB is at the forefront of modern science. We are home to around 100 graduate students and 52 world-class faculty pursuing cutting-edge research in all areas of biochemistry, including: cell and developmental biology, chemical biology, endocrinology, enzymology, immunology, metabolism, molecular genetics, molecular medicine, physical biochemistry and biophysics, quantitative biology, structural biology, systems and synthetic biology, and virology. The Program teaches critical thinking skills, applicable to a wide range of professional fields that students pursue after graduation.

The size and breadth of IPiB provide unique opportunities for graduate students who want to pursue a degree in one of the top biochemistry graduate programs in the nation. Our modern facilities are filled with labs carrying out groundbreaking research in a collaborative, friendly, and inspirational atmosphere. Welcome to IPiB and we hope that you can share our enthusiasm for the biochemical sciences!

DUAL DEGREES

The program participates with the School of Medicine and Public Health in offering a joint program for students wishing to complete both the M.D. and Ph.D. degrees. The basic prerequisites and degree requirements for the Ph.D. in the M.D./Ph.D. program are identical to those for the major in biochemistry; however, the minor may be taken in medical sciences. For the prerequisites and degree requirements for the M.D. degree, as well as the online application form, see Medical Scientist Training Program (<http://mstp.med.wisc.edu>).

ADMISSIONS

This master's program is offered for work leading to the Ph.D. Students may not apply directly for the master's, and should instead see the admissions information for the Ph.D (p. 172).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 48 credits

Minimum Residence Credit Requirement 42 credits

Minimum Graduate Coursework Requirement All coursework must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments Upon completion of the Graduate School's and IPiB's and minimum requirements for a master's degree, whether to Examinations confer the degree is up to the student's thesis advisor.

Language n/a
Requirements

REQUIRED COURSES

Code	Title	Credits
Required Core		
BIOCHEM 660	Methods in Biochemistry	2
BIOCHEM/ BMOLCHEM 701	Professional Responsibility	1
BIOCHEM 729	Advanced Topics (From Atoms to Molecules)	3
BMOLCHEM 720	Experimental Design and Paradigms in Cellular Biochemistry and Molecular Biology	3
BIOCHEM 990 or BMOLCHEM 990	Research ¹ Advanced Biomolecular Chemistry and Research	Varies

Seminars

After the first semester of work, M.S. candidates must maintain continuous seminar enrollment each semester in one of the approved advanced (900-level) seminars.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (https://ipib.wisc.edu/c_students_handbook.php) is the repository for all of the program's policies and requirements.

Prior Coursework

Graduate Work from Other Institutions

For well-prepared advanced students, the Program may accept up to 6 credits of prior graduate coursework from other institutions towards the minimum graduate degree credit and minimum graduate coursework (50%) requirement. The minimum graduate residence credit requirement can be satisfied only with courses taken as a graduate student at UW-Madison.

UW-Madison Undergraduate

No credits from a UW-Madison undergraduate degree are allowed to count toward the graduate degree.

UW-Madison University Special

No credits taken as a University Special student are allowed to count toward the graduate degree.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student must have an IPiB faculty thesis advisor. The thesis advisor advises the student about coursework, supervises the student's research, and acts as a mentor to the student through the student's graduate career. The thesis advisor must approve the student's coursework before registration for a given semester and must also approve any subsequent changes to it.

A Ph.D. thesis committee is composed of at least four graduate university faculty members, including the thesis advisor. The thesis committee is empowered by the program to advise the student about certification, administer the preliminary examination, oversee annual progress reports, approve thesis composition, and conduct the final Ph.D. examination.

CREDITS PER TERM ALLOWED

12 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Students may matriculate only in the fall semester, and a master's degree is not offered as a terminal degree.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Gain a broad understanding of the biochemical principles that underlie all biological processes.
2. Become aware of the current limitations of the state of understanding of this discipline and the strategies that are required to advance the field.
3. Formulate and design new approaches that extend and apply biochemical principles beyond their current boundaries.
4. Explore career development opportunities in industry, government and academia to realize professional goals and paths.

5. Develop teaching and mentoring skills in both lecture and laboratory settings.

6. Foster professional and ethical conduct in the sciences, including but not limited to: exposition of the scientific method; ethical design of experimental protocols; reproducibility in science; professional behavior in industrial, government, and academic settings; documentation of scientific results; communication to other scientists and the public; peer review; and confidentiality.

PEOPLE

Faculty: Professors B. Fox (Chair, Department of Biochemistry), Kiley (Chair, Department of Biomolecular Chemistry), Amasino, Ansari, Attie, Audhya, Bednarek, Brow, Butcher, Chanda, Clagett-Dame, Coon, Cox, Craciun, Craig, Denu, Dvinge, Engin, C. Fox, Friesen, Harrison, Hayes, Henzler-Wildman, Holden, Hoskins, Hull, Keck, Kimble, Landick, Lewis, Markley, Martin, Merrins, Mitchell, Mosher, Ntambi, Pagliarini, Palmenberg, Pike, Ralph, Raman, Rayment, Record, Romero, Senes, Sheets, Sussman, Venturelli, Wang, Weibel, Wickens, Wildonger

BIOCHEMISTRY, PH.D.

Biochemistry is the study of biological molecules, their roles in the cell, and the chemistry of their reactions in living systems. The Integrated Program in Biochemistry (IPiB) is the merged graduate program between the Department of Biochemistry (in the College of Agricultural and Life Sciences) and the Department of Biomolecular Chemistry (in the School of Medicine and Public Health). The program trains the next generation of biochemists and prepares them for 21st Century challenges in science. IPiB offers a Ph.D. degree with a major in biochemistry. Although an M.S. degree is officially offered, students are not admitted for a terminal master's degree.

From atoms and cells to plants and animals, biochemistry research in IPiB is at the forefront of modern science. We are home to around 100 graduate students and 52 world-class faculty pursuing cutting-edge research in all areas of biochemistry, including: cell and developmental biology, chemical biology, endocrinology, enzymology, immunology, metabolism, molecular genetics, molecular medicine, physical biochemistry and biophysics, quantitative biology, structural biology, systems and synthetic biology, and virology. The program teaches critical thinking skills, applicable to a wide range of professional fields that students pursue after graduation.

The size and breadth of IPiB provide unique opportunities for graduate students who want to pursue a degree in one of the top biochemistry graduate programs in the nation. Our modern facilities are filled with labs carrying out groundbreaking research in a collaborative, friendly, and inspirational atmosphere. Welcome to IPiB and we hope that you can share our enthusiasm for the biochemical sciences!

DUAL DEGREES

The program participates with the School of Medicine and Public Health in offering a joint program for students wishing to complete both the M.D. and Ph.D. degrees. The basic prerequisites and degree requirements for the Ph.D. in the M.D./Ph.D. program are identical to those for the major in biochemistry; however, the minor may be taken in medical sciences. For the prerequisites and degree requirements for the M.D. degree, as well

as the online application form, see Medical Scientist Training Program (<http://mstp.med.wisc.edu>).

ADMISSIONS

To qualify for admission to IPiB, an applicant must complete a bachelor's degree at a recognized, accredited college or university. The basic background for graduate study in biochemistry ordinarily would be provided by an undergraduate degree in biochemistry, chemistry, physics, or in one of the biological or medical sciences. Coursework in biochemistry, organic chemistry, physics, and physical chemistry is required. (Admission might be granted without one or more of these course requirements, but the deficiency must be made up within the student's first two years of graduate study.) The applicant's undergraduate grade point average must be at least 3.0 (4.0 scale). For more information, please visit the Prospective Students (https://ipib.wisc.edu/p_students.php) tab on the IPiB website.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

IPiB students receive a full stipend (\$28,000 for 2018-19), as well as tuition remission and comprehensive health insurance. The stipends take the form of traineeships, research assistantships, or fellowships, and are guaranteed for all IPiB Ph.D. candidates in good academic standing. IPiB also assists its graduate students with outstanding academic records in competing for University or national awards.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement	54 credits
Minimum Residence Credit Requirement	42 credits
Minimum Graduate Coursework Requirement	All coursework must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.
Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.
Assessments and Examinations	Deposit of the doctoral dissertation in the Graduate School is required.
Language Requirements	n/a
Doctoral Minor/Breadth Requirements	Doctoral students must complete IPIB's required coursework plus a minimum of 6 credits of approved breadth coursework in the physical, biological, and/or quantitative sciences. Students who opt for the Option A (focused) doctoral minor must complete IPIB's required coursework, the minor requirements of the minor program, and a minimum of 6 credits of approved breadth coursework in the physical, biological, and/or quantitative sciences.

REQUIRED COURSES

Code	Title	Credits
<i>Program Course Requirements</i>		
BIOCHEM 660	Methods in Biochemistry	2
BIOCHEM/ BMOLCHEM 701	Professional Responsibility	1
BIOCHEM 729	Advanced Topics (From Atoms to Molecules)	3
BMOLCHEM 720	Experimental Design and Paradigms in Cellular Biochemistry and Molecular Biology	3
BIOCHEM 990	Research	1-12
<i>Breadth Requirements</i>		
Students must complete a minimum of two additional graduate level (600 or above or that carry the graduate attribute) didactic or laboratory courses in order to fulfill their breadth requirements, and a minimum of 6 total credits is required. Courses must be chosen from at least 2 of the following categories: physical sciences, biological sciences, or quantitative sciences. One-credit seminars do not count toward the breadth requirements.		
BIOCHEM 601	Protein and Enzyme Structure and Function	
BIOCHEM/B M I/ BMOLCHEM/ MATH 606	Mathematical Methods for Structural Biology	
BIOCHEM/B M I/ BMOLCHEM/ MATH 609	Mathematical Methods for Systems Biology	
BIOCHEM/ GENETICS/ MICROBIO 612	Prokaryotic Molecular Biology	
BIOCHEM/ NUTR SCI 619	Advanced Nutrition: Intermediary Metabolism of Macronutrients	
BIOCHEM/ GENETICS/ MD GENET 620	Eukaryotic Molecular Biology	
BIOCHEM/ BOTANY 621	Plant Biochemistry	
BIOCHEM 625	Mechanisms of Action of Vitamins and Minerals	
BIOCHEM/ PHMCOL-M/ ZOOLOGY 630	Cellular Signal Transduction Mechanisms	
BIOCHEM/ NUTR SCI 645	Molecular Control of Metabolism and Metabolic Disease	
BIOCHEM 660	Methods in Biochemistry	
BIOCHEM/ CHEM 665	Biophysical Chemistry	
BIOCHEM/ CHEM 704	Chemical Biology	
BIOCHEM/ MICROBIO 726	Regulation of Gene Expression in Prokaryotes	
BIOCHEM 729 or BMOLCHEM 990	Advanced Topics (IPIB Seminar) or Biomolecular Chemistry Seminar	
BIOCHEM 729	Advanced Topics (Practicum in Undergraduate Teaching)	

BIOCHEM 729	Advanced Topics (From Atoms to Molecules)
BIOCHEM 729	Advanced Topics (Foundations of Biotechnology)
BIOCHEM 729	Advanced Topics (Responsible Conduct of Research)
BIOCHEM 729	Advanced Topics (Membrane Protein Structure and Function (Advanced))
BIOCHEM 799	Practicum in Biochemistry Teaching
BMOLCHEM/ CHEM 627	Methods and Technologies for Protein Characterization
BMOLCHEM/ BIOCHEM 701	Professional Responsibility
BMOLCHEM 720	Experimental Design and Paradigms in Cellular Biochemistry and Molecular Biology
M M & I/ BIOCHEM 575	Biology of Viruses

result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student must have an IPiB faculty thesis advisor. The thesis advisor advises the student about coursework, supervises the student's research, and acts as a mentor to the student through the student's graduate career. The thesis advisor must approve the student's coursework before registration for a given semester and must also approve any subsequent changes to it.

A Ph.D. thesis committee is composed of at least four graduate University faculty members, including the thesis advisor. The thesis committee is empowered by the Program to advise the student about certification, administer the preliminary examination, oversee annual progress reports, approve thesis composition, and conduct the final Ph.D. examination.

CREDITS PER TERM ALLOWED

12 credits

TIME CONSTRAINTS

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

OTHER

IPiB students receive a stipend (\$27,000 in 2017-18) in addition to fringe benefits and tuition. Competitive fellowships and traineeships are also available. Students may matriculate only in the fall semester, and a master's degree is not offered as a terminal degree.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Gain a broad understanding of the biochemical principles that underlie all biological processes.
2. Become aware of the current limitations of the state of understanding of this discipline and the strategies that are required to advance the field.
3. Formulate and design new approaches that extend and apply biochemical principles beyond their current boundaries.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (https://ipib.wisc.edu/c_students_handbook.php) is the repository for all of the program's policies and requirements.

Prior Coursework

Graduate Work from Other Institutions

For well-prepared advanced students, the Program may accept up to 6 credits of prior graduate coursework from other institutions towards the minimum graduate degree credit and minimum graduate coursework (50%) requirement. The minimum graduate residence credit requirement can be satisfied only with courses taken as a graduate student at UW–Madison.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the graduate degree.

UW–Madison University Special

No credits taken as a University Special student are allowed to count toward the graduate degree.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could

4. Conduct independent research using a diverse breadth of biochemical processes.
5. Think critically to address research challenges using a broad range of the theories, research methods, and approaches to scientific inquiry.
6. Collaborate with investigators within the program, university, and beyond since current and future advances in the biomolecular sciences demand interdisciplinary skills.
7. Foster professional and ethical conduct in the sciences, including but not limited to: exposition of the scientific method; ethical design of experimental protocols; reproducibility in science; professional behavior in industrial, government, and academic settings; documentation of scientific results; communication to other scientists and the public; peer review; and confidentiality.
8. Develop communications skills that enable the articulation of research to fellow scientists and non-scientists.
9. Explore career development opportunities in industry, government and academia to realize professional goals and paths.
10. Develop teaching and mentoring skills in both lecture and laboratory settings.

PEOPLE

Faculty: Professors B. Fox (Chair, Department of Biochemistry), Kiley (Chair, Department of Biomolecular Chemistry), Amasino, Ansari, Attie, Audhya, Bednarek, Brow, Butcher, Chanda, Clagett-Dame, Coon, Cox, Craciun, Craig, Denu, Dvinge, Engin, C. Fox, Friesen, Harrison, Hayes, Henzler-Wildman, Holden, Hoskins, Hull, Keck, Kimble, Landick, Lewis, Markley, Martin, Merrins, Mitchell, Mosher, Ntambi, Pagliarini, Palmenberg, Pike, Ralph, Raman, Rayment, Record, Romero, Senes, Sheets, Sussman, Venturelli, Wang, Weibel, Wickens, Wildonger

BIOLOGICAL SYSTEMS ENGINEERING

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Biological Systems Engineering, M.S. (p. 175)
- Biological Systems Engineering, Ph.D. (p. 178)

PEOPLE

Faculty: Professors Reinemann, Anex, Bohnhoff, Etzel, Gunasekaran, Hanna, Hartel, Holmes, Kammel, Karthikeyan, Kung, O'Leary, Pan, Ralph, Shinnars, Straub, A. Thompson, Walsh; Associate Professor Runge (chair); Assistant Professors Digman, Larson, Luck

BIOLOGICAL SYSTEMS ENGINEERING, M.S.

Graduate work in the Department of Biological Systems Engineering (BSE) leads to the master of science and doctor of philosophy degrees. Graduates of the program help fill the need for highly educated engineers in industry, consulting firms, government agencies, and educational institutions.

Students who undertake graduate studies in BSE normally have as their goal a better understanding of the current theories, principles, issues, and problems in biological systems. They desire a better understanding of how knowledge is generated, how it is critically evaluated, and how solutions to problems are generated. Graduate studies improve the ability of students to think critically and creatively, and to synthesize, analyze, and integrate ideas for decision making and problem solving.

The department offers students an opportunity to undertake research and advanced study in different specialization areas such as biological systems, environmental quality and natural resource engineering, waste management, food and bioprocess engineering and food safety, machinery systems, bioresources and biorefining, and agricultural safety and health.

Graduate research assistantships, project assistantships, and fellowships are available on a highly competitive basis.

ADMISSIONS

The department requires that students have a strong engineering background for admission to its graduate program. Most applicants have a bachelor of science degree from an ABET/EAC-accredited engineering program or an engineering undergraduate degree from an international institution. Applicants who do not have a bachelor of science degree from an ABET/EAC-accredited engineering program may be admitted with a stipulation that they complete supplemental work. Contact the department for details concerning additional requirements. Applicants are evaluated based on their academic record and educational objectives and letters of reference.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement At least 50% of credits applied toward the graduate degree credit requirement must be in graduate level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements Graduate students in BSE must maintain a minimum overall B average (3.0 GPA) during their graduate studies. Seminars, research, or other special problems credits may not be used to offset BC or C grades. No grade below a C will be accepted for fulfilling course work requirements for the degree

Assessments and Examinations All students must complete a graduation checklist and be certified by the GIRC before taking their final oral examination.

Language Requirements n/a

REQUIRED COURSES

Thesis Track ¹

If your objective is to pursue a Ph.D. degree and/or research-oriented career, you are strongly encouraged to select the thesis option.

Code	Title	Credits
Total Credits ²		30
Letter-graded UW-Madison course credits ³		18
Thesis research credits		6
Graduate seminar credits		2
Biological Systems Engineering course credits ⁴		8

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

² Not including course credits taken to satisfy admission requirements.

³ At least six credits must be from coursework at the 500-level and above in science/engineering classes; can include up to six credits of science/engineering classes taken at 400-level and above as UW-Madison undergraduate.

⁴ For the two required graduate seminar credits, students typically take BSE 900 Seminar and BSE 901 Graduate Research Seminar.

Non-Thesis Track ¹

Code	Title	Credits
Total Credits ²		30
Letter-graded UW-Madison course credits ³		24
Independent study credits		3
Graduate seminar credits		2
Biological Systems Engineering course credits ⁴		8

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

² Not including course credits taken to satisfy admission requirements.

³ At least six credits must be from coursework at the 500-level and above in science/engineering classes; can include up to six credits of science/engineering classes taken at 400-level and above as UW-Madison undergraduate.

⁴ For the two required graduate seminar credits, students typically take BSE 900 Seminar and BSE 901 Graduate Research Seminar.

Other Requirements

Both thesis and non-thesis option students should select a committee of three faculty members in consultation with their major professors. For thesis option students, at least one of the committee members should be from another department. All students must present their research results at an oral final examination to the committee. All BSE graduate students are required to take BSE 900 Seminar within the first three semesters (offered fall semester only). All BSE graduate students are required and should take BSE 901 Graduate Research Seminar within the last two full semesters (offered spring semester only) of their graduation. Graduate students should register for an appropriate number of credits of BSE 990 Research. If the student's progress is satisfactory, the student will receive a grade of P (progress) for each semester of BSE 990 until the final semester. At that time all of these credits will be given an S (satisfactory) grade by the major professor.

result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

12 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Funding decisions are made by faculty supervisors of the admitted students based on the funding availability and project need.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Articulates, critiques, or elaborates the theories, research methods, and approaches to inquiry or schools of practice in the field of study.
2. Identifies sources and assembles evidence pertaining to questions or challenges in the field of study.
3. Demonstrates understanding of the primary field of study in a historical, social, or global context.
4. Selects and/or utilizes the most appropriate methodologies and practices.
5. Evaluates or synthesizes information pertaining to questions or challenges in the field of study.
6. Recognizes and applies principles of ethical and professional conduct.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://bse.wisc.edu/graduate-studies/graduate-student-resources>) is the repository for all of the program's policies and requirements.

Prior Coursework

Graduate Work from Other Institutions

With approval of the Graduate Research and Instructions Committee, students are allowed to count no more than 9 credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

Students may count up to 6 credits of coursework 400-level and above from a UW–Madison undergraduate degree toward the degree. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison University Special

With approval of the Graduate Research and Instructions Committee, students are allowed to count no more than 9 credits of coursework numbered 300 or above taken as a UW–Madison University Special student. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could

PEOPLE

Faculty: Professors Reinemann, Anex, Bohnhoff, Etzel, Gunasekaran, Hanna, Hartel, Holmes, Kammel, Karthikeyan, Kung, O'Leary, Pan, Ralph, Shinnars, Straub, A. Thompson, Walsh; Associate Professor Runge (chair); Assistant Professors Digman, Larson, Luck

BIOLOGICAL SYSTEMS ENGINEERING, PH.D.

Graduate work in the Department of Biological Systems Engineering (BSE) leads to the master of science and doctor of philosophy degrees. Graduates of the program help fill the need for highly educated engineers in industry, consulting firms, government agencies, and educational institutions.

Students who undertake graduate studies in BSE normally have as their goal a better understanding of the current theories, principles, issues, and problems in biological systems. They desire a better understanding of how knowledge is generated, how it is critically evaluated, and how solutions to problems are generated. Graduate studies improve the ability of students to think critically and creatively, and to synthesize, analyze, and integrate ideas for decision making and problem solving.

The department offers students an opportunity to undertake research and advanced study in different specialization areas such as biological systems, environmental quality and natural resource engineering, waste management, food and bioprocess engineering and food safety, machinery systems, bioresources and biorefining, and agricultural safety and health.

Graduate research assistantships, project assistantships, and fellowships are available on a highly competitive basis.

ADMISSIONS

The department requires that students have a strong engineering background for admission to its graduate program. Most applicants have a bachelor of science degree from an ABET/EAC-accredited engineering program or an engineering undergraduate degree from an international institution. Applicants who do not have a bachelor of science degree from an ABET/EAC-accredited engineering program may be admitted with a stipulation that they complete supplemental work. Contact the department for details concerning additional requirements. Applicants are evaluated based on their academic record and educational objectives and letters of reference.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum	72 credits
Credit Requirement	
Minimum	32 credits
Residence Credit Requirement	

Minimum Graduate Coursework Requirement At least 50% of credits applied toward the graduate degree credit requirement must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements Graduate students in BSE must maintain a minimum overall B average (3.0 GPA) during their graduate studies. Seminars, research, or other special problems credits may not be used to offset BC or C grades. No grade below a C will be accepted for fulfilling course work requirements for the degree.

Assessments and Examinations Doctoral students are required to take a comprehensive preliminary/oral examination after they have cleared their record of all Incomplete and Progress grades (other than research and thesis). Deposit of the doctoral dissertation in the Graduate School is required.

Language Requirements n/a

Doctoral Minor/Breadth Requirements Doctoral students must complete a doctoral minor.

REQUIRED COURSES

Code	Title	Credits
<i>Course Credits</i> ¹		42-54
BSE 900	Seminar ²	2
BSE 901	Graduate Research Seminar ³	1
BSE 990	Research (Thesis) ⁴	24
<i>Teaching Preparatory/Professional Communications Course</i> ⁵		3

Students may choose from the following or select another course in consultation with their advisor:

E P D 597	Technical and Professional Communication
E P D 654	Teaching in Science and Engineering
BSE 799	Practicum in Agricultural Engineering Teaching

Footnotes

¹ At least 36 of the course credits must be taken in physical sciences. At least 9 credits must be from the 600 to 800 level classes from an engineering department and/or comparable technical area. All course credits need to be taken as a letter grade unless course is only offered for credit/no credit. Credit/no credit courses must get prior approval from advisor. Only 1 credit/no credit of the 9 credits can be used to fulfill your credits from 600- to 800-level classes.

² All graduate students are required to register for one credit of BSE 900 Seminar (only offered fall semesters) within the first three semesters as a graduate student in BSE. However, if you completed your master's degree in BSE, you do not have to repeat the 1-credit seminar.

³ As a part of the seminar, all students are required to make an oral presentation reporting their research results, typically during the last semester of their graduate program (if you took this course as an

M.S. student, you will need to repeat the course as a Ph.D. student to reflect your current research).

⁴ Graduate students should register for an appropriate number of credits of BSE 990 Research (Thesis Research). If the student's progress is satisfactory, the student will receive a grade of P (progress) for each semester of BSE 990 Research until the final semester. At that time all of these credits will be given an S (satisfactory) grade by the major professor.

⁵ The teaching course credits shall not be used to fulfill 9 credits of 600 to 800 level classes from an engineering department and/or comparable technical area. Teaching preparatory courses and seminar courses will NOT count toward the required 24 (42) course credits.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://bse.wisc.edu/graduate-studies/graduate-student-resources>) is the repository for all of the program's policies and requirements.

Prior Coursework

Graduate Work from Other Institutions

For well-prepared advanced students, the program may accept prior graduate coursework from other institutions toward the minimum graduate degree credit and minimum graduate coursework (50%) requirement. The minimum graduate residence credit requirement can be satisfied only with courses taken as a graduate student at UW–Madison. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements. Up to 6 research credits received for the master's degree may be transferred from another accredited institution. No other research credit may be transferred. Eighteen (18) Master's course credits earned from another institution maybe transferred towards Ph.D. Additional credits need to be approved by the BSE Graduate Instruction and Research committee.

UW–Madison Undergraduate

For well-prepared advanced students, the program may decide to accept up to 7 credits numbered 300 or above completed at UW–Madison toward fulfillment of minimum degree and minor credit requirements. This work would not be allowed to count toward the 50% graduate coursework minimum unless taken at the 700 level or above. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison University Special

The program may decide to accept up to 15 University Special student credits as fulfillment of the minimum graduate residence, graduate degree, or minor credit requirements on occasion as an exception (on a case-by-case basis). UW–Madison coursework taken as a University Special student would not be allowed to count toward the 50% graduate coursework minimum unless taken at the 700 level or above. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies. An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor.

To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

OTHER

Funding decisions are made by faculty supervisors of the admitted students based on the funding availability and project need.

PROFESSIONAL DEVELOPMENT**GRADUATE SCHOOL RESOURCES**

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Articulates research problems, potentials, and limits with respect to theory, knowledge, or practice within the field of study.
2. Formulates ideas, concepts, designs, and/or techniques beyond the current boundaries of knowledge within the field of study.
3. Creates research, scholarship, or performance that makes a substantive contribution.
4. Demonstrates breadth within their learning experiences.
5. Advances contributions of the field of study to society.
6. Communicates complex ideas in a clear and understandable manner.
7. Fosters ethical and professional conduct.

PEOPLE

Faculty: Professors Reinemann, Anex, Bohnhoff, Etzel, Gunasekaran, Hanna, Hartel, Holmes, Kammel, Karthikeyan, Kung, O'Leary, Pan, Ralph, Shinnars, Straub, A. Thompson, Walsh; Associate Professor Runge (chair); Assistant Professors Digman, Larson, Luck

BIOMEDICAL ENGINEERING**DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES**

- Biomedical Engineering, Doctoral Minor (p. 181)
- Biomedical Engineering, M.S. (p. 181)
- Biomedical Engineering, Ph.D. (p. 185)
- Quantitative Biology, Doctoral Minor (p. 192)

PEOPLE

Faculty: J. Williams (chair), R. Ashton, D. Beebe, W. Block, C. Brace, P. Campagnola, N. Chesler, S. Gong, J. Huisken, P. Keely, P. Kreeger, W. Li, M. McClean, K. Masters, M. Meyerand, W. Murphy, J. Rogers, K. Saha, M. Skala, D. Thelen, W. Tompkins, R. Vanderby, J. Webster; Instructional Staff and Faculty Associates: A. Nimunkar, J. Puccinelli, T. Puccinelli, A. Suminski, J. Towles, and M. Tyler. See also the BME Directory. (<http://directory.engr.wisc.edu/bme>)

BIOMEDICAL ENGINEERING, DOCTORAL MINOR

REQUIREMENTS

Students must:

- Earn at least **10** credits from a single degree program and satisfy the requirements specified by the Department of Biomedical Engineering. Approval of the courses for the Option A minor is certified by the BME Associate Chair of Graduate Advising (<https://www.engr.wisc.edu/departments/bme/contact/people-in-bme>).
- Meet the requirements identified on the Option A Minor Approval Form and submit the form to the BME associate chair of graduate advising for approval (no later than halfway through the minor course sequence and before requesting the preliminary exam warrant).

PEOPLE

FACULTY:

See also BME Faculty Directory (<https://directory.engr.wisc.edu/bme/faculty>)

PROFESSORS:

- Justin Williams (Chair)
- David Beebe
- Walter Block
- Paul Campagnola
- Naomi Chesler
- Shaoqin (Sarah) Gong
- Jan Huisken
- Beth Meyerand
- William Murphy
- Darryl Thelen
- Ray Vanderby

ASSISTANT PROFESSORS:

- Randolph Ashton
- Megan McClean
- Jeremy Rogers
- Krishanu Saha

ASSOCIATE PROFESSORS:

- Christopher Brace
- Pamela Kreeger
- Wan-ju Li
- Melissa Skala

FACULTY ASSOCIATES

- Amit Nimunkar
- John Puccinelli
- Tracy Jane Puccinelli
- Aaron Suminski

- Joseph Towles
- Mitchell Tyler

EMERITUS

- Ed Bersu
- Willis Tompkins
- John Webster

BIOMEDICAL ENGINEERING, M.S.

Biomedical engineering is the application of engineering tools for solving problems in biology and medicine. It is an engineering discipline that is practiced by professionals trained primarily as engineers, who specialize in medical and biological applications. The area of study combines fundamentals of the biomedical sciences with advanced engineering methods of analysis and design, and brings together these two fields in order to contribute to the design of new medical instruments and devices, apply engineering principles for understanding and repairing the human body and other biological systems, and use engineering tools for decision making and cost containment.

The interdisciplinary degree program offers a course of graduate study leading to the master of science or the doctor of philosophy degrees in biomedical engineering. The Department of Biomedical Engineering should be of interest to students who wish to practice engineering or engage in research in an engineering specialization in medicine and biology. An individualized course of study is planned with a faculty advisor. Biomedical engineering faculty and affiliated faculty come from the various colleges and professional schools throughout the university. They specialize in biomedical engineering areas as diverse as biomechanics, bioinstrumentation, biomedical imaging and biophotonics, micro and nano technology, systems biology, biomaterials, cellular engineering, tissue engineering, neuroengineering, and rehabilitation and human performance. A list of biomedical engineering faculty, affiliated faculty, and their respective areas of specialization is available from the department website.

ADMISSIONS

Applicants should have a bachelor's degree in engineering (biomedical, chemical, electrical, industrial, mechanical, etc.) or science (biology, biochemistry, chemistry, genetics, immunology, physics, etc.). Each application is judged on the basis of:

- official academic transcripts
- Graduate Record Examinations (GRE) (<http://www.ets.org/gre>) scores or Medical College Admission Test (MCAT) scores for the general test
- TOEFL (<http://www.toefl.org>) examination for international students
- three letters of recommendation
- a statement of purpose (<https://grad.wisc.edu/prospective/prepare/statement>)
- a resume (for Ph.D. applicants only)

Students admitted to the program may be required to make up deficiency course requirements. In addition, all applicants must satisfy requirements that are set forth by the Graduate School (<http://www.wisc.edu/grad>).

APPLICATION DEADLINES & FEE

Complete applications (including supportive materials) **must** be submitted as described below and received by the below dates. Submission must be accompanied by the one-time application fee of \$75; it is non-refundable and can be paid by credit card (Master Card or Visa) or Debit/ATM. By state law, this fee can only be waived or deferred through the conditions outlined here by the Graduate School (<https://grad.wisc.edu/admissions/feegrants>):

- **Fall Semester—December 1 (Ph.D.), January 1 (MS)**
- **Spring Semester—October 1 (both M.S & Ph.D. programs)**
- **Summer Session¹—December 1 (Ph.D.), January 1 (M.S)**

¹**Please note that summer admissions are generally limited to continuing BME students at UW—Madison or applicants who have research assistantships already arranged with UW faculty.**

APPLICATION MATERIALS

To apply to the the BME program, applicants should complete the Graduate School's online application (<https://grad.wisc.edu/apply>) with the following materials:

Official Academic Transcripts

Electronically submit one copy of your official transcript of all undergraduate and previous graduate work along with your online application with the Graduate School. Unofficial copies of transcripts will be accepted for review but official copies are required for admitted students. Please do not send transcripts or any other application materials to the Graduate School or the BME department. If questions, please contact bmeegradadmission@engr.wisc.edu or gradadmission@engr.wisc.edu.

Graduate Record Examination (GRE) and Test of English as a Foreign Language (TOEFL) Scores

- **GRE Scores**
 - The GRE General Test is required for admission of applicants; exemption is only possible for the following:
 - domestic applicants who choose to substitute MCAT scores for the GRE (send MCAT score report to BME graduate admissions email: bmeegradadmission@engr.wisc.edu)

Applicants should request ETS to forward GRE scores by using **institution code 1846** and **department code 1603**.

- **TOEFL Scores**
 - The TOEFL is required for international students unless a degree from a U.S. educational institution is held; scores should be forwarded using institution code 1846 and department code 69. An applicant whose TOEFL (paper-based) test score is below 580; TOEFL computer based test (CBT) score below 237; (TOEFL internet based iBT) test score below 92; IELTS score below 7; or MELAB below 82 **must** take an English assessment test upon arrival if accepted to the program. The student may also need to register for an English as a Second Language (ESL) course in the first semester that they are enrolled.

- Any international applicant who will hold a teaching assistantship (TA) and whose native language is not English must take the SPEAK (<https://esl.wisc.edu/ita-training/speak>) test when arriving on campus.

Three Letters of Recommendation

These letters are required from people who can accurately judge the applicant's academic or research performance. Letters of recommendation are submitted electronically to graduate programs through the online application. Applicants should not send any more than 3 letters (if more than three are sent, only the first three will be considered). See the Graduate School for FAQs regarding letters of recommendation (<https://grad.wisc.edu/admissions/faq/#rec>).

Statement of Purpose

In this document, applicants should explain why they want to pursue further education in BME and discuss which UW faculty members they would be interested in doing research with during their graduate study (see the Graduate School for more advice on how to structure a personal statement (<https://grad.wisc.edu/prospective/prepare/statement>)).

Resume (for Ph.D. applicants only)

ONLY if applying for the PhD program.

Application fee—online through the application, it is nonrefundable and can be paid by credit card (Master Card or Visa), Debit/ATM. By state law, this fee can only be waived or deferred through the conditions outlined here by the Graduate School (<https://grad.wisc.edu/admissions/feegrants>).

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations There are no degree-specific assessments and examinations outside of those given in individual courses. If an M.S. student should decide to extend their studies and pursue a Ph.D. in BME, they will need to take Qualifying and Preliminary Examinations.

Language Requirements n/a

REQUIRED COURSES

Specific course selection is very flexible and draws upon a variety of courses. The required coursework is designed to complement each student's interests and background in biomedical engineering and meet the spirit of a BME degree; deviations from the requirements should be discussed with the associate chair of graduate advising and will be decided on a case-by-case basis.

- Two semesters of B M E 701 Seminar in Biomedical Engineering
- At least one course in bioscience (such as PHYSIOL 335 or a cell biology course; if not from a bioscience or BME background)
- At least 12 credits of engineering courses, 400 level or above
- At least 15 credits in one area of specialization (<https://www.engr.wisc.edu/department/bme/research>), 400 level or above (any program)
- At least 15 credits that are graduate level (700 or above or from the approved list)
- Optional, but recommended: 3–6 credits of independent study project experience or master's thesis research in the student's area of specialization (a maximum of 6 credits can be applied to the MS although students may take more). These credits may count toward your area of specialization.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (https://www.engr.wisc.edu/app/uploads/2016/01/bme_grad_handbook_2017-2.pdf) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

The Graduate School's minimum credit requirement for graduation can ONLY be satisfied with graduate-level courses taken as a graduate student at UW–Madison. The minimum credit requirement is 16 credits for master's degree students and 32 credits for Ph.D. students. Master's degree students who have been absent for five or more years lose all degree credits earned before their absence. The BME department will allow the student to use up to 6 credits of graduate course work from another institution toward his/her degree requirements. See Graduate Student Coordinator Pam Peterson for more information.

UW–Madison Undergraduate

Fulfillment of Minimum Graduate Degree Credit Requirement with prior UW–Madison undergraduate coursework is allowed up to 6 credits numbered 700 or above in engineering-degree-

granting programs or from the approved list. Coursework earned five or more years prior to admission to a M.S. degree is not allowed to satisfy requirements. Prior coursework from the UW–Madison undergraduate career may not count toward the minimum graduate residence credit requirement.

UW–Madison University Special

A maximum of 15 credits from the UW–Madison University Special student career may count toward program requirements. Minimum graduate resident credits requirement and minimum graduate degree credit requirement: allowed up to 15 credits numbered 300 or above. Minimum graduate coursework (50%) requirement: allowed up to 15 credits numbered 700 or above. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

ADVISOR / COMMITTEE

Every BME graduate student must have a faculty advisor. A faculty advisor provides the graduate student with academic guidance in their course program and research oversight in their thesis, project, or engineering report. Graduate students should always seek advice from their advisor and other faculty in their interest area prior to enrolling for courses.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Full-time students usually complete an M.S. in BME in one year.

OTHER

n/a

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PROGRAM RESOURCES

THE INDIVIDUAL DEVELOPMENT PLAN (IDP)

An Individual Development Plan (IDP) (<https://grad.wisc.edu/pd/idp>) helps graduate students and postdoctoral researchers:

- assess current skills, interests, and strengths;
- make a plan for developing skills to meet academic and professional goals; and
- communicate with supervisors, advisors, and mentors about evolving goals and related skills.

The IDP is a document to be revisited again and again, to update and refine as goals change and/or come into focus, and to record progress and accomplishments.

The university **recommends** IDPs for all postdoctoral researchers and graduate students, and **requires** IDPs for all postdoctoral researchers and graduate students supported by National Institutes of Health (NIH) funding. See the Graduate School for more information and IDP resources (<https://grad.wisc.edu/pd/idp>).

ENGINEERING CAREER SERVICES

The Engineering Career Services (<https://ecs.wisc.edu>) staff offers assistance to students searching or preparing for internships, co-ops, and jobs with well-recognized organizations.

THE WRITING CENTER

The Writing Center (<https://writing.wisc.edu>) is a campus-wide organization that provides free of charge, face-to-face and online consultations for students writing papers, reports, resumes, and applications.

LEARNING OUTCOMES

1. Demonstrate a strong understanding of mathematical, scientific, and engineering principles in the field.
2. Demonstrate an ability to formulate, analyze, and solve advanced engineering problems.
3. Demonstrate creative, independent problem solving skills.
4. Apply the latest scientific and technological advancements, advanced techniques, and modern engineering tools to these problems.
5. Recognize and apply principles of ethical and professional conduct.

PEOPLE

FACULTY:

See also BME Faculty Directory (<https://directory.engr.wisc.edu/bme/faculty>)

PROFESSORS:

- Justin Williams (Chair)
- David Beebe
- Walter Block
- Paul Campagnola

- Naomi Chesler
- Shaoqin (Sarah) Gong
- Jan Huisken
- Beth Meyerand
- William Murphy
- Darryl Thelen
- Ray Vanderby

ASSISTANT PROFESSORS:

- Randolph Ashton
- Megan McClean
- Jeremy Rogers
- Krishanu Saha

ASSOCIATE PROFESSORS:

- Christopher Brace
- Pamela Kreeger
- Wan-ju Li
- Melissa Skala

FACULTY ASSOCIATES

- Amit Nimunkar
- John Puccinelli
- Tracy Jane Puccinelli
- Aaron Suminski
- Joseph Towles
- Mitchell Tyler

EMERITUS

- Ed Bersu
- Willis Tompkins
- John Webster

BIOMEDICAL ENGINEERING, PH.D.

Biomedical engineering is the application of engineering tools for solving problems in biology and medicine. It is an engineering discipline that is practiced by professionals trained primarily as engineers, who specialize in medical and biological applications. The area of study combines fundamentals of the biomedical sciences with advanced engineering methods of analysis and design, and brings together these two fields in order to contribute to the design of new medical instruments and devices, apply engineering principles for understanding and repairing the human body and other biological systems, and use engineering tools for decision making and cost containment.

The interdisciplinary degree program offers a course of graduate study leading to the master of science or the doctor of philosophy degrees in biomedical engineering. The Department of Biomedical Engineering should be of interest to students who wish to practice engineering or engage in research in an engineering specialization in medicine and biology. An individualized course of study is planned with a faculty advisor. Biomedical engineering faculty and affiliated faculty come from the various colleges and professional schools throughout the university. They specialize in biomedical engineering areas as diverse as biomechanics, bioinstrumentation, biomedical imaging and biophotonics, micro and nano technology, systems biology, biomaterials, cellular

engineering, tissue engineering, neuroengineering, and rehabilitation and human performance. A list of biomedical engineering faculty, affiliated faculty, and their respective areas of specialization is available from the department website.

ADMISSIONS

Applicants should have a bachelor's degree in engineering (biomedical, chemical, electrical, industrial, mechanical, etc.) or science (biology, biochemistry, chemistry, genetics, immunology, physics, etc.). Each application is judged on the basis of:

- official academic transcripts
- Graduate Record Examinations (GRE) (<http://www.ets.org/gre>) scores or Medical College Admission Test (MCAT) scores for the general test
- TOEFL (<http://www.toefl.org>) examination for international students
- three letters of recommendation
- a statement of purpose (<https://grad.wisc.edu/prospective/prepare/statement>)
- a resume (for Ph.D. applicants only)

Students admitted to the program may be required to make up deficiency course requirements. In addition, all applicants must satisfy requirements that are set forth by the Graduate School (<http://www.wisc.edu/grad>).

APPLICATION DEADLINES & FEE

Complete applications (including supportive materials) **must** be submitted as described below and received by the below dates. Submission must be accompanied by the one-time application fee of \$75; it is non-refundable and can be paid by credit card (Master Card or Visa) or Debit/ATM. By state law, this fee can only be waived or deferred through the conditions outlined here by the Graduate School (<https://grad.wisc.edu/admissions/feegrants>):

- **Fall Semester—December 1 (Ph.D.), January 1 (MS)**
- **Spring Semester—October 1 (both M.S & Ph.D. programs)**
- **Summer Session ¹—December 1 (Ph.D.), January 1 (M.S)**

¹***Please note that summer admissions are generally limited to continuing BME students at UW–Madison or applicants who have research assistantships already arranged with UW faculty.***

APPLICATION MATERIALS

To apply to the the BME program, applicants should complete the Graduate School's online application (<https://grad.wisc.edu/apply>) with the following materials:

Official Academic Transcripts

Electronically submit one copy of your official transcript of all undergraduate and previous graduate work along with your online application with the Graduate School. Unofficial copies of transcripts will be accepted for review but official copies are required for admitted students. Please do not send transcripts or any other application materials to the Graduate School or the BME department. If questions, please contact bmeegradadmission@engr.wisc.edu or gradadmission@engr.wisc.edu.

Graduate Record Examination (GRE) and Test of English as a Foreign Language (TOEFL) Scores

• GRE Scores

- The GRE General Test is required for admission of applicants; exemption is only possible for the following:
 - domestic applicants who choose to substitute MCAT scores for the GRE (send MCAT score report to BME graduate admissions email: bmegradadmission@engr.wisc.edu)

Applicants should request ETS to forward GRE scores by using **institution code 1846** and **department code 1603**.

• TOEFL Scores

- The TOEFL is required for international students unless a degree from a U.S. educational institution is held; scores should be forwarded using institution code 1846 and department code 69. An applicant whose TOEFL (paper-based) test score is below 580; TOEFL computer based test (CBT) score below 237; (TOEFL internet based iBT) test score below 92; IELTS score below 7; or MELAB below 82 **must** take an English assessment test upon arrival if accepted to the program. The student may also need to register for an English as a Second Language (ESL) course in the first semester that they are enrolled.
- Any international applicant who will hold a teaching assistantship (TA) and whose native language is not English must take the SPEAK (<https://esl.wisc.edu/ita-training/speak>) test when arriving on campus.

Three Letters of Recommendation

These letters are required from people who can accurately judge the applicant's academic or research performance. Letters of recommendation are submitted electronically to graduate programs through the online application. Applicants should not send any more than 3 letters (if more than three are sent, only the first three will be considered). See the Graduate School for FAQs regarding letters of recommendation (<https://grad.wisc.edu/admissions/faq/#rec>).

Statement of Purpose

In this document, applicants should explain why they want to pursue further education in BME and discuss which UW faculty members they would be interested in doing research with during their graduate study (see the Graduate School for more advice on how to structure a personal statement (<https://grad.wisc.edu/prospective/prepare/statement>)).

Resume (for Ph.D. applicants only)

ONLY if applying for the PhD program.

Application fee—online through the application, it is nonrefundable and can be paid by credit card (Master Card or Visa), Debit/ATM. By state law, this fee can only be waived or deferred through the conditions outlined here by the Graduate School (<https://grad.wisc.edu/admissions/feegrants>).

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have

researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

It is our experience that nearly all doctoral students in the BME department obtain funding, but there are no guarantees. A limited number receive fellowships. A few students enrolled in M.S. coursework program are self-funded.

Research assistantships are available from individual faculty based on their research funding and awarded when grants are funded and after applications for BME admission are accepted. Sometimes there are project assistantships, teaching assistantships, and traineeships also available. A few students enrolled in M.S. coursework program are self-funded.

ADMITTED WITH FUNDING

We have a limited number of university or departmental fellowships to offer each year. In addition, there are research assistantships that are offered to grad applicants from individual faculty members. Teaching assistantships (TA) are possible through specific departments with more opportunity in lower-level courses, such as calculus, chemistry, and physics. Often, funding matches with specific faculty occur during the Visit Wisconsin Weekend in the spring.

ADMITTED WITHOUT FUNDING

If you are admitted without funding, please know that you will be considered by BME faculty for potential support. You are also encouraged to contact faculty in BME (<http://www.engr.wisc.edu/bme/faculty>) whose research is of particular interest. Please wait to hear from us about your admission without aid before contacting faculty for support. You may also apply to BME specific TA positions after being admitted or other TA positions on campus.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 60 credits

Minimum Residence Credit Requirement 32 credits

Minimum Graduate Coursework Requirement Half of degree coursework (30 credits out of 60 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Candidates are required to pass a comprehensive qualifying examination and preliminary examination. Doctoral students are required to take a comprehensive preliminary/oral examination after they have cleared their record of all Incomplete and Progress grades (other than research and thesis). Deposit of the doctoral dissertation in the Graduate School is required.

Language Requirements No language requirements.

Doctoral Minor/Breadth Requirements Breadth is provided via interdisciplinary training (minor requirement waived): The central aim of biomedical engineers is to unravel gaps in biological knowledge through the use of engineering principles. Thus, the doctoral program is inherently interdisciplinary. Prior to obtaining a Ph.D. warrant, students will prepare a summary of their effort in interdisciplinary coursework and training. The purpose of the summary will be to document the effort to meet the spirit of the minor requirement. The summary must be approved by the student's thesis committee and filed with the department. Students may elect to pursue a doctoral minor.

REQUIRED COURSES

M.S. Requirements

To receive a Ph.D., students must first complete the requirements for an M.S. degree in biomedical engineering (p. 182):

- Completion of a Degree Program Plan (found on the BME website (<https://www.engr.wisc.edu/department/bme/academics/graduate>) or through the graduate student coordinator):
 - During their first semester of coursework, students must complete and have their advisor approve a Degree Program Plan, which will be stored in their secure BOX folder. This form will be useful for students to reflect upon at the end of their program when they complete their Final Warrant Request Form.
- Two semesters of B M E 701 Seminar in Biomedical Engineering
- At least one course in bioscience (such as ANAT&PHY 335 Physiology or 3 a cell biology course; if not from a bioscience or BME background)
- At least 12 credits of engineering courses, 400-level or above
- At least 15 credits in one area of specialization, 400-level or above (any program)
- At least 15 credits that are graduate level (700 or above or from the approved list)
- Optional, but recommended: 3-6 credits of independent study project experience or master's thesis research in the student's area of specialization (a maximum of 6 credits can be applied to the MS although students may take more). These credits may count towards your area of specialization.

Specific course selection is very flexible and draws upon a variety of courses. The required coursework is designed to complement each student's interests and background in biomedical engineering and meet the spirit of a BME degree; deviations from the requirements should be discussed with the associate chair of graduate advising and will be decided on a case-by-case basis.

Ph.D. Requirements

In addition to the M.S. requirements listed above, Ph.D. students must complete an additional 30 credits of Ph.D. study. These 30 credits must include completion of one the following six Ph.D. tracks:

Biomaterials & Tissue Engineering Track ¹

Biomaterials and tissue engineering employ a diverse range of approaches to develop methods to diagnose and treat diseases, create living tissue environments that may be used to restore the function of a damaged organ, and uncover biological mechanisms related to tissue

development and disease. Graduate students trained in biomaterials and tissue engineering are expected to gain a detailed understanding of cellular and molecular biology, materials science, and engineering methods relevant to their research focus.

Code	Title	Credits
Biology Requirement (2-3 Credits) 2-3		
ZOOLOGY 570	Cell Biology	
ZOOLOGY/ BIOCHEM/ PHM COL-M 630	Cellular Signal Transduction Mechanisms	
CRB 650	Molecular and Cellular Organogenesis	
ONCOLOGY 401	Introduction to Experimental Oncology	
Data Analysis Requirement (1-3 Credits) 1-3		
B M I/STAT 541	Introduction to Biostatistics	
COMP SCI 765	Data Visualization	
Systems & Synthetic Biology Requirement (6 Credits) 6		
B M E/ PHM SCI 430	Biological Interactions with Materials	
B M E/CBE 510	Introduction to Tissue Engineering	
B M E 511	Tissue Engineering Laboratory	
B M E/CBE 520	Stem Cell Bioengineering	
B M E 545	Engineering Extracellular Matrices	
B M E 550	Introduction to Biological and Medical Microsystems	
B M E 601	Special Topics in Biomedical Engineering	
CBE 540	Polymer Science and Technology	
M S & E 521	Advanced Polymeric Materials	
Elective Requirement (9-11 Credits) To provide breadth, at least 9 credits of electives must be chosen from courses that are not listed above 9-11		
Total Credits		18-23

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Biomedical Imaging & Optics Track ¹

Biomedical imaging and optics research develops and utilizes new experimental and computational tools to characterize tissue structure across multiple size scales. A particular focus is on human health, especially with respect to achieving superior diagnostic/prognostic tools for a spectrum of diseased states. Graduate students trained in this track are expected to gain a detailed understanding of mathematics, biology and engineering both optical and/or physical methods relevant to their research focus.

Code	Title	Credits
Mathematics Requirement (0-3 Credits) 0-3		
MATH 443	Applied Linear Algebra (OR previous undergraduate course with grade B- or better)	
Biology Requirement (3 Credits) 3		
ZOOLOGY 570	Cell Biology	

ANAT&PHY 335	Physiology	
Imaging Requirement (9 Credits) 9		
B M E/ MED PHYS 530	Medical Imaging Systems	
B M E/ MED PHYS 573	Medical Image Science: Mathematical and Conceptual Foundations	
B M E/ MED PHYS 574	Imagine in Medicine: Applications	
B M E/ MED PHYS 578	Non-Ionizing Diagnostic Imaging	
B M E 601	Special Topics in Biomedical Engineering	
B M E/CHEM/ MED PHYS 650	Biological Optical Microscopy	
MED PHYS/ B M E 710	Advances in Medical Magnetic Resonance	
Elective Requirement (6-11 Credits) To provide breadth, at least 6 credits of electives must be taken from courses that are not listed above 6-11		
Total Credits		18-26

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Biomechanics Track ¹

Biomechanics utilizes experimental and computational tools to analyze and develop novel biomechanical systems. Graduate students trained in biomechanics are expected to gain a detailed understanding of mathematics, biology and engineering methods relevant to their research focus.

Code	Title	Credits
Mathematics Requirement (3 Credits) 3		
MATH 443	Applied Linear Algebra	
MATH 519	Ordinary Differential Equations	
MATH 619	Analysis of Partial Differential Equations	
Biomechanics of Solids & Fluids Requirement (>9 Credits) 9+		
B M E/M E 415	Biomechanics of Human Movement	
B M E/M E 505	Biofluidics	
B M E/M E 603	Topics in Bio-Medical Engineering (Finite Elements for Biomechanics)	
B M E/M E 615	Tissue Mechanics	
M E 601	Special Topics in Mechanical Engineering (Orthopedic Biomechanics: Design of Implants)	
Biosciences (3-6 Credits) 3-6		
ANATOMY 622	Human Anatomy-Physical Therapy, Occupational Therapy	
KINES 350	Introduction to Exercise Psychology	
KINES 531	Neural Control of Movement	
KINES 773	Cardiorespiratory Adaptions to Environment and Exercise	
ANAT&PHY 335	Physiology	

ANAT&PHY 435	Fundamentals of Human Physiology	
ZOOLOGY 570	Cell Biology	
Elective Requirement (6 Credits)		6
To provide breadth, electives must be courses that are not listed above; some recommendations are below		
<i>Data Analysis</i>		
B M I/STAT 541	Introduction to Biostatistics	
COMP SCI 368	Learning a Programming Language	
<i>Computational Methods</i>		
E M A 405	Practicum in Finite Elements	
E M A 605	Introduction to Finite Elements	
M E 460	Applied Thermal / Structural Finite Element Analysis	
<i>Solid & Fluid Mechanics</i>		
E M A 622	Mechanics of Continua	
E M A 630	Viscoelastic Solids	
E M A 700	Theory of Elasticity	
M E 563	Intermediate Fluid Dynamics	
M E/E M A 570	Experimental Mechanics	
M E 573	Computational Fluid Dynamics	
<i>Other</i>		
B M E/E C E 462	Medical Instrumentation	
B M E/ MED PHYS 530	Medical Imaging Systems	
B M E/ANATOMY/ MED PHYS/ PHMCOL-M/ PHYSICS/ RADIOL 619	Microscopy of Life	
M E/STAT 424	Statistical Experimental Design	
Total Credits		12-24

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Medical & Microdevices Track ¹

Medical and microdevices involve the use of electronic and computational tools to develop devices used in diagnosis and treatment of disease ranging from the systemic to the cellular and molecular levels

Code	Title	Credits
Mathematics Requirement (3 Credits)		
MATH 443	Applied Linear Algebra	
MATH 519	Ordinary Differential Equations	
MATH 619	Analysis of Partial Differential Equations	
Biology Requirement (3 Credits)		3
B M E 601	Special Topics in Biomedical Engineering (Physiology for BME Students)	
ZOOLOGY 570	Cell Biology	
Data Analysis (3 Credits)		3
COMP SCI 300	Programming II	

COMP SCI 368	Learning a Programming Language	
Biostatistics & Medical Informatics Course (B M I)		
Signal Processing Course		
Medical & Microdevices (6 Credits)		6
B M E 515	Therapeutic Medical Devices	
B M E/ MED PHYS 535	Introduction to Energy-Tissue Interactions	
B M E 550	Introduction to Biological and Medical Microsystems	
B M E/E C E 762	Biomedical Instrumentation	
B M E/E C E 763	Projects in Computers in Medicine	
Elective Requirement (9-11 Credits)		9-11
To provide breadth, 6 credits of electives must be from courses that are not listed above; examples of possible courses are listed below:		
B M E/ MED PHYS 574	Imagine in Medicine: Applications	
E C E 630	All of Signal Processing	
Total Credits		21-23

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Neuroengineering Track ¹

Neuroengineering is the convergence of neuroscience, computation, device development, and mathematics to improve human health. Neuroengineering brings together state-of-the-art technologies for the development of devices and algorithms to assist those with neural disorders. It is also used to reverse engineer living neural systems via new algorithms, technologies and robotics. Students pursuing this track are involved in all of these endeavors so as the next generation of engineers, they will transcend the traditional boundaries of neuroscience, technology, engineering and mathematics.

Code	Title	Credits
Mathematics Requirement (0-3 Credits)		0-3
MATH 443	Applied Linear Algebra (OR previous undergraduate course))	
Ethics (1 Credit)		1
MED HIST 545	Ethical and Regulatory Issues in Clinical Investigation	
MED PHYS 701	Ethics and the responsible conduct of research and practice of Medical Physics	
Data Analysis (3 Credits)		3
COMP SCI 368	Learning a Programming Language	
COMP SCI/ B M I 567	Medical Image Analysis	
COMP SCI 766	Computer Vision	
COMP SCI/ B M I 767	Computational Methods for Medical Image Analysis	
Engineering Requirement (12 Credits)		12
B M E 515	Therapeutic Medical Devices	
B M E 601	Special Topics in Biomedical Engineering (BioMEMS)	

B M E 601	Special Topics in Biomedical Engineering (Special Topics in Neuroinstrumentation)	
B M E/E C E 763	Projects in Computers in Medicine	
E C E/B M E 462	Medical Instrumentation	
E C E/B M E 463	Computers in Medicine	
E C E/COMP SCI/ I S Y E 524	Introduction to Optimization	
E C E/ COMP SCI 533	Image Processing	
E C E/COMP SCI/ M E 539	Introduction to Artificial Neural Network and Fuzzy Systems	
MED PHYS/ NTP 651	Methods for Neuroimaging Research	
Neurobiology Requirement (6 Credits)		6
B M E/CBE 520	Stem Cell Bioengineering	
KINES 721	Neural Basis for Movement	
KINES 861	Principles of Motor Control and Learning	
NTP/ NEURODPT 610	Cellular and Molecular Neuroscience	
NTP/NEURODPT/ PSYCH 611	Systems Neuroscience	
NTP/ NEURODPT 630	Neuronal Mechanisms for Sensation and Memory in Cerebral Cortex	
NTP/NEUROL 735	Neurobiology of Disease	
PSYCH 610	Statistical Analysis of Psychological Experiments	
PSYCH/ NEURODPT/ NTP 611	Systems Neuroscience	
PSYCH 733	Perceptual and Cognitive Sciences	
ZOOLOGY 625	Development of the Nervous System	

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Systems & Synthetic Biology Track ¹

Systems and synthetic biology utilizes experimental and computational tools in an iterative fashion to analyze and regulate biological systems.

Students interested in earning a doctoral minor in Quantitative Biology

(p. 192): enrollment in B M E 601 Special Topics in Biomedical Engineering (Methods in Quantitative Biology) is a requirement. Additionally, students will need to take one additional 3-credit course in quantitative science, biology, or integrated biology/quantitative science from the approved list of courses in the doctoral minor (this course counts toward the elective credits for this track).

Code	Title	Credits
Mathematics Requirement (3 Credits)		3
CBE 660	Intermediate Problems in Chemical Engineering	
MATH 443	Applied Linear Algebra	

MATH 519	Ordinary Differential Equations	
MATH 619	Analysis of Partial Differential Equations	
Biology Requirement (3 Credits)		3
BIOCHEM 501	Introduction to Biochemistry	
ZOOLOGY 570	Cell Biology	
ZOOLOGY/ BIOCHEM/ PHMCOL-M 630	Cellular Signal Transduction Mechanisms	
Data Analysis Requirement(1-3 Credits)		1-3
B M E 601	Special Topics in Biomedical Engineering (Matlab Skills)	
B M I/STAT 541	Introduction to Biostatistics	
COMP SCI 368	Learning a Programming Language	
Systems & Synthetic Biology Requirement (6 Credits)		6
B M E 556	Systems Biology: Mammalian Signaling Networks	
CBE/B M E 560	Biochemical Engineering	
CBE 781	Biological Engineering: Molecules, Cells & Systems	
CBE/B M E 782	Modeling Biological Systems	
Electives Requirement (9-11 Credits) ^{To meet the requirement of 12 credits of engineering courses, 3-6 credits of electives must be engineering coursework. To provide breadth, 6 credits of electives must be from courses that are not listed above. Suggested courses include the below list)}		9-11
B M E/CBE 510	Introduction to Tissue Engineering	
B M E/CBE 520	Stem Cell Bioengineering	
B M E 545	Engineering Extracellular Matrices	
B M E 550	Introduction to Biological and Medical Microsystems	
B M E/ANATOMY/ MED PHYS/ PHMCOL-M/ PHYSICS/ RADIOL 619	Microscopy of Life	

Total Credits 22-26

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (https://www.engr.wisc.edu/app/uploads/2016/01/bme_grad_handbook_2017-2.pdf) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

The Graduate School's minimum credit requirement for graduation can ONLY be satisfied with graduate-level courses taken as a graduate student at UW–Madison. The minimum credit requirement is 32 credits for Ph.D. students. The BME department will allow the student to use up to 6 credits of graduate course work from another institution toward his/her degree requirements. See the graduate student coordinator for more information.

UW–Madison Undergraduate

Fulfillment of Minimum Graduate Degree Credit Requirement with prior UW–Madison undergraduate coursework is allowed up to 6 credits numbered 700 or above in engineering-degree-granting programs or from the approved list. Coursework earned five or more years prior to admission to a Ph.D. degree is not allowed to satisfy requirements. Prior coursework from the UW–Madison undergraduate career may not count toward the minimum graduate residence credit requirement.

UW–Madison University Special

A maximum of 15 credits from the UW–Madison University Special student career may count toward program requirements. Minimum graduate resident credits requirement and minimum graduate degree credit requirement: allowed up to 15 credits numbered 300 or above. Minimum graduate coursework (50%) requirement: allowed up to 15 credits numbered 700 or above. Coursework earned five or more years prior to admission to a Ph.D. program is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

ADVISOR / COMMITTEE

Every BME graduate student must have a faculty advisor. A faculty advisor provides the graduate student with academic guidance in their course program and research oversight in their thesis, project, or engineering report. Graduate students should always seek advice

from their advisor and other faculty in their interest area prior to enrolling for courses.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Students typically complete their degree within seven years of entering the program.

Within two years of entering their program, students are required to pass a comprehensive qualifying examination.

Within one year of after completion of their qualifying examination, students are required to prepare for a preliminary examination.

OTHER

n/a

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PROGRAM RESOURCES

THE INDIVIDUAL DEVELOPMENT PLAN (IDP)

An Individual Development Plan (IDP) (<https://grad.wisc.edu/pd/idp>) helps graduate students and postdoctoral researchers:

- assess current skills, interests, and strengths;
- make a plan for developing skills to meet academic and professional goals; and
- communicate with supervisors, advisors, and mentors about evolving goals and related skills.

The IDP is a document to be revisited again and again, to update and refine as goals change and/or come into focus, and to record progress and accomplishments.

The university **recommends** IDPs for all postdoctoral researchers and graduate students, and **requires** IDPs for all postdoctoral researchers and graduate students supported by National Institutes of Health (NIH) funding. See the Graduate School for more information and IDP resources (<https://grad.wisc.edu/pd/idp>).

ENGINEERING CAREER SERVICES

The Engineering Career Services (<https://ecs.wisc.edu>) staff offers assistance to students searching or preparing for internships, co-ops, and jobs with well-recognized organizations.

THE WRITING CENTER

The Writing Center (<https://writing.wisc.edu>) is a campus-wide organization that provides free of charge, face-to-face and online consultations for students writing papers, reports, resumes, and applications.

LEARNING OUTCOMES

1. Demonstrate an ability to synthesize knowledge from a subset of the biological and physical sciences.
2. Conduct original research.
3. Demonstrate an ability to create new knowledge and communicate it to their peers.
4. Foster ethical and professional conduct.

PEOPLE

FACULTY:

See also BME Faculty Directory (<https://directory.engr.wisc.edu/bme/faculty>)

PROFESSORS:

- Justin Williams (Chair)
- David Beebe
- Walter Block
- Paul Campagnola
- Naomi Chesler
- Shaoqin (Sarah) Gong
- Jan Huiskens
- Beth Meyerand
- William Murphy
- Darryl Thelen
- Ray Vanderby

ASSISTANT PROFESSORS:

- Randolph Ashton
- Megan McClean
- Jeremy Rogers
- Krishanu Saha

ASSOCIATE PROFESSORS:

- Christopher Brace
- Pamela Kreeger
- Wan-ju Li
- Melissa Skala

FACULTY ASSOCIATES

- Amit Nimunkar
- John Puccinelli
- Tracy Jane Puccinelli
- Aaron Suminski
- Joseph Towles
- Mitchell Tyler

EMERITUS

- Ed Bersu
- Willis Tompkins

- John Webster

QUANTITATIVE BIOLOGY, DOCTORAL MINOR

Technological innovations have revolutionized the scale and detail with which biological systems can be explored. With that revolution has come a demand for scientists who can develop and analyze quantitative and predictive models of biological systems. The doctoral minor in Quantitative Biology (<https://qbi.wisc.edu>) is designed to complement the depth of training in biological or quantitative sciences that a student achieves through UW–Madison’s graduate programs with the breadth that is needed to conduct research under this paradigm. In addition to coursework in biological, quantitative, and integrated courses, students in the program will take an inter-disciplinary research seminar to prepare them for research that crosses these boundaries. This training will prepare students for careers in academic and industrial settings, where the ability to cross disciplinary lines and work in teams with diverse expertise is critical.

REQUIREMENTS

Students who are candidates for the Ph.D. degree in any department or program may obtain an interdisciplinary minor in Quantitative Biology by earning:

- A minimum of 10 credits from the courses listed below, divided into four categories:
 - A required, 1-credit research seminar (students are advised to take during first year of graduate program)
 - One course from a quantitative science
 - One course from a biological science
 - One integrated course

Code	Title	Credits
Required		1
B M E 601	Special Topics in Biomedical Engineering (Methods in Quantitative Biology)	
Quantitative Courses (Choose One)		3-4
CBE 660	Intermediate Problems in Chemical Engineering	
COMP SCI 760	Machine Learning	
MATH 443	Applied Linear Algebra	
MATH/ COMP SCI 513	Numerical Linear Algebra	
MATH/ COMP SCI 514	Numerical Analysis	
MATH 519	Ordinary Differential Equations	
MATH 531	Probability Theory	
MATH 605	Stochastic Methods for Biology	
MATH 608	Mathematical Methods for Continuum Modeling in Biology	
MATH 619	Analysis of Partial Differential Equations	

MATH/ COMP SCI 714	Methods of Computational Mathematics I	
STAT/MATH 431	Introduction to the Theory of Probability	
STAT/B M I 541	Introduction to Biostatistics	
STAT/F&W ECOL/ HORT 571	Statistical Methods for Bioscience I	
STAT/F&W ECOL/ HORT 572	Statistical Methods for Bioscience II	
STAT 609	Mathematical Statistics I	
STAT 610	Introduction to Statistical Inference	
STAT/I SY E/ MATH/OTM 632	Introduction to Stochastic Processes	
STAT/MATH 709	Mathematical Statistics	
STAT/MATH 710	Mathematical Statistics	
Integrated Courses (Choose One)		3
B M E 556	Systems Biology: Mammalian Signaling Networks	
B M E/CBE 782	Modeling Biological Systems	
B M E/CBE 783	Design of Biological Molecules	
B M I/ COMP SCI 576	Introduction to Bioinformatics	
B M I/BIOCHEM/ BMOLCHEM/ MATH 606	Mathematical Methods for Structural Biology	
B M I/BIOCHEM/ BMOLCHEM/ MATH 609	Mathematical Methods for Systems Biology	
B M I/ COMP SCI 776	Advanced Bioinformatics	
B M I/STAT 877	Statistical Methods for Molecular Biology	
GENETICS 885	Advanced Genomic and Proteomic Analysis	
Biological Courses (Choose One)		2-3
BIOCHEM 501	Introduction to Biochemistry	
BIOCHEM 601	Protein and Enzyme Structure and Function	
BIOCHEM/ GENETICS/ MICROBIO 612	Prokaryotic Molecular Biology	
BIOCHEM/ GENETICS/ MD GENET 620	Eukaryotic Molecular Biology	
BIOCHEM/ BOTANY 621	Plant Biochemistry	
BIOCHEM 625	Mechanisms of Action of Vitamins and Minerals	
BIOCHEM/ PHMCOL-M/ ZOOLOGY 630	Cellular Signal Transduction Mechanisms	
BIOCHEM 660	Methods in Biochemistry	
BIOCHEM/ CHEM 704	Chemical Biology	
BIOCHEM/ MICROBIO 726	Regulation of Gene Expression in Prokaryotes	

GENETICS 466	Principles of Genetics	
GENETICS/ MICROBIO 607	Advanced Microbial Genetics	
GENETICS/ BOTANY/M M & I/ MICROBIO/ PL PATH 655	Biology and Genetics of Fungi	
GENETICS 701	Advanced Genetics	
MICROBIO 625	Advanced Microbial Physiology	
MICROBIO/ BMOLCHEM 668	Microbiology at Atomic Resolution	
ZOOLOGY 570	Cell Biology	
Total Credits		9-11

PEOPLE

Faculty: J. Williams (chair), R. Ashton, D. Beebe, W. Block, C. Brace, P. Campagnola, N. Chesler, S. Gong, J. Huisken, P. Keely, P. Kreeger, W. Li, M. McClean, K. Masters, M. Meyerand, W. Murphy, J. Rogers, K. Saha, M. Skala, D. Thelen, W. Tompkins, R. Vanderby, J. Webster; Instructional Staff and Faculty Associates: A. Nimunkar, J. Puccinelli, T. Puccinelli, A. Suminski, J. Towles, and M. Tyler. See also the BME Directory. (<http://directory.engr.wisc.edu/bme>)

BIOSTATISTICS AND MEDICAL INFORMATICS

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Bioinformatics, Graduate/Professional Certificate (p. 193)
- Biomedical Data Science, M.S. (p. 194)
- Biomedical Data Science, Ph.D. (p. 197)

BIOINFORMATICS, GRADUATE/PROFESSIONAL CERTIFICATE

Bioinformatics is the application of computational and statistical methods to molecular biology. In the realm of biological and medical science, bioinformatics is a central discipline and is placing a new demand on the training of graduate students and other scientists in the biological and computer sciences.

The educational objective of the graduate certificate program in bioinformatics is to provide added formal training for graduate students currently enrolled at UW–Madison to improve their fundamental skills in bioinformatics. The goal is to allow them to have enough basic knowledge to continue their own research and to collaborate with computer scientists specializing in bioinformatics methods.

ADMISSIONS

The Department of Biostatistics and Medical Informatics is the administrative home of the bioinformatics certificate program.

You must be currently enrolled in a graduate program at UW–Madison.

To apply for the certificate program you must provide the following:

- A completed Graduate Certificate in Bioinformatics Application Form (<https://www.biostat.wisc.edu/sites/default/files/Application.pdf>)
- A Statement of Purpose explaining how the certificate program will help your current and future research
- A CV/resume
- One letter of recommendation

Please submit the listed materials to Beth Bierman, graduate coordinator, bbierman@wisc.edu

For additional information about the certificate program, see Graduate Certificate in Bioinformatics (<https://www.biostat.wisc.edu/content/graduate-certificate-bioinformatics>)

Applications are accepted on a rolling basis.

REQUIREMENTS

The Graduate/Professional Certificate in Bioinformatics consists of four courses for a total of 12 credits. Three of the courses are required; one is an elective. Depending on their course and/or research load, students are given two years to complete the program.

Prerequisites:

Code	Title	Credits
MATH 222	Calculus and Analytic Geometry 2	4
COMP SCI 300	Programming II ¹	3

¹ Or COMP SCI 367 - Intro to Data Structures prior to fall 2018.

Basic Course Requirements:

Choose ONE Statistics Course:

Code	Title	Credits
B M I/STAT 541 or STAT/ F&W ECOL/ HORT 571	Introduction to Biostatistics Statistical Methods for Bioscience I	3

Complete BOTH of these courses:

Code	Title	Credits
B M I/COMP SCI 576 & B M I/ COMP SCI 776	Introduction to Bioinformatics and Advanced Bioinformatics	6

Choose ONE elective:

Code	Title	Credits
B M I/STAT 542	Introduction to Clinical Trials I	3

COMP SCI 540	Introduction to Artificial Intelligence	3
COMP SCI 564	Database Management Systems: Design and Implementation	4
COMP SCI 577	Introduction to Algorithms	4
COMP SCI 731	Advanced Artificial Intelligence	3
COMP SCI 760	Machine Learning	3
COMP SCI 766	Computer Vision	3
I SY E/B M I 617	Health Information Systems	3
MATH 605	Stochastic Methods for Biology	3
MATH/B M I/ BIOCHEM/ BMOLCHEM 606	Mathematical Methods for Structural Biology	3
MATH 608	Mathematical Methods for Continuum Modeling in Biology	3

BIOMEDICAL DATA SCIENCE, M.S.

The current explosion of biomedical data provides an awesome opportunity to improve understanding of the mechanisms of disease and ultimately to improve human health care. However, fully harnessing the power of high-dimensional, heterogeneous data requires a new blend of skills including programming, data management, data analysis, and machine learning.

The M.S. degree program in biomedical data science covers core concepts and allows for concentrated coursework, in both methodology and application. The goal of the program is to prepare graduates to:

1. Understand and apply key concepts and methodologies from computer science and statistics to biology and biomedicine.
2. Demonstrate knowledge of biological, biomedical, clinical, and population health concepts and problems.
3. Contribute to the solutions of the central computational problems in biology and medicine, using methods from computer science and statistics.

ADMISSIONS

Potential students include both those with bachelor's degrees in an area of data-science (e.g., computer science, statistics), as well as health professionals and clinicians (e.g., M.D.'s, Pharm.D.'s, R.N.'s). It is expected that admitted candidates will have demonstrated an aptitude for computer science and math, fundamental programming skills, knowledge of data structures and algorithms, and at least two semesters of college calculus. We will however consider candidates who have a wide range of undergraduate backgrounds; providing opportunities to develop necessary skills immediately upon entering the program.

Applying to the Program:

- A formal online application (<https://grad.wisc.edu/apply>) with required fee through the UW–Madison Graduate School
- Three letters of recommendation
- Transcripts from each higher-education institution attended
- A statement of purpose
- GRE or MCAT scores

- Applicants whose native language is not English, or whose undergraduate instruction was not in English, must provide an English proficiency test score (TOEFL, MELAB, or IELTS)
- Evidence of quantitative preparation, including at least two semesters of college calculus (similar to MATH 221–MATH 222) and either a course in linear algebra (similar to MATH 340) or courses in programming and data structures

Application Deadline: January 12

For additional information about admission to the program, see MS Program in Biomedical Data Science (https://www.biostat.wisc.edu/content/ms_program_in_biomedical_data_science) on the department website.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Funding guarantees are not provided for students in this program. Students are encouraged to explore funding options available across campus.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least

50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement Half of the coursework (15 out of 30 total credits) must be completed in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements Students must earn a B or above in all core curriculum coursework.

Assessments and Examinations No formal examination required. The research track requires a research project of 3–6 credits.

Language Requirements No language requirements.

REQUIRED COURSES

Code	Title	Credits
Core Courses Required		
B M I/COMP SCI 576	Introduction to Bioinformatics	3
B M I/COMP SCI 567	Medical Image Analysis	3
B M I 826	Special Topics in Biostatistics and Biomedical Informatics (BMI 573 Health Informatics)	3
B M I/STAT 541	Introduction to Biostatistics	3
or B M I/POP HLTH 551	Introduction to Biostatistics for Population Health	
or STAT/F&W ECOL/HORT 571	Statistical Methods for Bioscience I	

Concentration Electives 6

In consultation with their faculty advisor, students will select electives in an area of concentration within biomedical informatics. Examples include but are not limited to:

B M I/STAT 641 Statistical Methods for Clinical Trials

B M I/STAT 642	Statistical Methods for Epidemiology
B M I/ COMP SCI 776	Advanced Bioinformatics
B M I/STAT 877	Statistical Methods for Molecular Biology
B M I/ COMP SCI 767	Computational Methods for Medical Image Analysis
B M I/STAT 768	Statistical Methods for Medical Image Analysis
I SY E 417	Health Systems Engineering
I SY E/B M I 617	Health Information Systems

Data Science Electives 6-7

In consultation with their faculty advisor, students will select two courses as electives in computer science and/or statistics. Coursework of high relevance includes the following areas:

B M I/ COMP SCI 767	Computational Methods for Medical Image Analysis
B M I/STAT 768	Statistical Methods for Medical Image Analysis
STAT 601	Statistical Methods I
STAT 602	Statistical Methods II
STAT 609	Mathematical Statistics I
STAT 610	Introduction to Statistical Inference
STAT 627	Professional Skills in Data Science
STAT 771	Statistical Computing
STAT 849	Theory and Application of Regression and Analysis of Variance I
STAT 850	Theory and Application of Regression and Analysis of Variance II
COMP SCI 577	Introduction to Algorithms
COMP SCI 787	Advanced Algorithms
COMP SCI 766	Computer Vision
COMP SCI 564	Database Management Systems: Design and Implementation
COMP SCI 764	Topics in Database Management Systems
COMP SCI 570	Introduction to Human-Computer Interaction
COMP SCI/ ED PSYCH/ PSYCH 770	Human-Computer Interaction
COMP SCI 540	Introduction to Artificial Intelligence
COMP SCI 760	Machine Learning
COMP SCI/ E C E 761	Mathematical Foundations of Machine Learning
COMP SCI 545	Natural Language and Computing
COMP SCI 769	Advanced Natural Language Processing
COMP SCI/I SY E/ MATH 425	Introduction to Combinatorial Optimization
COMP SCI/I SY E/ MATH/STAT 525	Linear Programming Methods

COMP SCI/ I SY E 635	Tools and Environments for Optimization	
COMP SCI 642	Introduction to Information Security	
Professional Track Electives ^{1,2}		6-7
or		
Research Track Electives ^{1,3}		7

- These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.
- The Professional track is intended for students who are interested in a terminal M.S. degree that will equip them to work as a professional in industry (e.g., developers of health information systems and electronic health records, and of novel genetic tests—as just a few examples), a hospital, or a research lab. In consultation with their advisor, students will select courses that will provide them with additional biomedical background for future employment opportunities. For example, if the professional track is chosen, students may focus their studies on genetics or neuroscience.
- The Research track is for students who are interested in developing their skills as an independent researcher. Students will conduct an independent research project with their faculty advisor. In consultation with their advisor students will select a course in responsible conduct of research. In addition, the advisor will help students select an elective specifically orientated to the topic of the their research. For example, if the Research track is chosen, a student could conduct an independent research project on breast cancer risk prediction. For the responsible conduct of research, the student could take Ethics for Data Scientists. For the research-oriented elective, the student might take a course in cancer genetics or machine learning.

POLICIES**GRADUATE SCHOOL POLICIES**

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES
GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://www.biostat.wisc.edu/sites/default/files/Handbook2017.pdf>) is the repository for all of the program's policies and requirements.

Prior Coursework**Graduate Work from Other Institutions**

With program approval, students are allowed to count no more than 9 credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

With program approval, students are allowed up to 7 credits numbered 300 or above from a UW–Madison undergraduate degree to count toward the degree. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison University Special

With program approval, students are allowed to count no more than 9 credits of course work numbered 300 or above taken as a UW–Madison Special student. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The status of a student can be one of three options:

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

ADVISOR / COMMITTEE

All students are required to conduct a yearly progress report meeting with their advisor, scheduled by December 17 and completed by April 30. Failure to do so will result in a hold being placed on the student's registration.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

If students have been absent for five or more years, they must file a new Graduate School application for admission and submit it with a new application fee. Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Students may count the coursework completed before their absence for meeting graduate degree-credit requirements; the Graduate School will not count that work toward the Graduate School's minimum residence credit requirement.

OTHER

Funding guarantees are not provided for students in this program. Students are encouraged to explore funding options available across campus.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Understand, apply, and evaluate common informatics theories, methods, and tools related to biological and biomedical problems, health care and public health.
2. Apply, adapt, and validate an existing approach to a specific biomedical and health problem.
3. Produce solutions that address academic or industrial needs using informatics tools and knowledge.
4. Evaluate the impact of biomedical informatics applications and interventions.
5. Understand the challenges and limitations of technological solutions.
6. Demonstrate scholarly oral and written presentations.
7. Adhere to the professional and legal standards of conduct in Biomedical Data Science.

PEOPLE

Faculty: Broman, Buchanan, Burnside, Chappell, Chen, Chung, Craven, Dewey, Doan, Dyer, Elwert, Gangnon, Gianola, Gitter, Keles, Kendziorski, Kim, Lu, Mao, Mendonça, Mumford, Newton, Ong, Page, Palta, Patel, Peissig, Rathouz (Chair), Rosa, Rosenberg, Roy, Singh, Sorkness, Tang, Wahba, Yandell, Velten, Yu, Zhang, Zhu

BIOMEDICAL DATA SCIENCE, PH.D.

The current explosion of biomedical data provides an awesome opportunity to improve understanding of the mechanisms of disease and ultimately to improve human health care. However, fully harnessing the power of high-dimensional, heterogeneous data requires a new blend of skills including programming, data management, data analysis, and machine learning.

Blending the best of statistics and computer sciences, biostatistics and biomedical informatics, this program provides students the training they need to make sense of large-scale biomedical data, and to be scientific leaders in the team science that invariably accompanies such data. Unique features of the program include cross-training in computer science and biostatistics, and research rotations mentored by a program faculty member jointly with a scientific collaborator.

ADMISSIONS

Potential students include both those with bachelor's degrees in an area of data-science (e.g., computer science, statistics), as well as health professionals and clinicians (e.g., M.D.'s, Pharm.D.'s, R.N.'s). It is expected that admitted candidates will have demonstrated an aptitude for computer science and math, fundamental programming skills, knowledge of data structures and algorithms, and at least two semesters of college calculus. We will however consider candidates who have a wide range of undergraduate backgrounds; providing opportunities to develop necessary skills immediately upon entering the program.

Applying to the Program:

- A formal online application (<https://grad.wisc.edu/apply>) with required fee through the UW–Madison Graduate School
- Three letters of recommendation
- Transcripts from each higher-education institution attended
- A statement of purpose
- GRE or MCAT scores
- Applicants whose native language is not English, or whose undergraduate instruction was not in English, must provide an English proficiency test score (TOEFL, MELAB, or IELTS)
- Evidence of quantitative preparation, including at least two semesters of college calculus (similar to MATH 221–MATH 222) and either a course in linear algebra (similar to MATH 340) or courses in programming and data structures

Application Deadline: December 31

For additional information about admission to the program, see PhD Program in Biomedical Data Science (<https://www.biostat.wisc.edu/PHD-Biomedical-Data-Science>) on the department website.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

The program is designed such that almost all students who are accepted to the program will receive guaranteed funding for five years. This funding may take a number of forms including, but not limited to training grants, teaching assistantships, and research assistantships. For more information about funding opportunities, see Graduate Assistantships (<https://grad.wisc.edu/studentfunding/currentstudents>).

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 51 credits

Minimum Residence Credit Requirement 32 credits

Minimum Graduate Coursework Requirement Half of degree coursework (26 out of 51 total credits) must be completed in graduate#level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements Ph.D. candidates should maintain a 3.5 GPA in all core curriculum courses and may not have any more than two incompletes on their record at any one time.

Assessments and Examinations Students must complete an Oral Preliminary Exam, ideally taken in the students' third year.

Language Requirements No language requirements.

Doctoral Minor/Breadth Requirements All doctoral students are required to complete a minor.

REQUIRED COURSES**CORE TOPICS**

Three year-long course sequences (18 credits) will be selected from a set of core topics.

1. A Biostatistics Theory and Methods sequence (topics 1–3)
2. A Computer Science/Informatics sequence (topics 4–7)
3. A sequence from any of the listed topics from Biostatistics Theory and Methods, Computer Science/Informatics, and the Specializations (topics 1–12)

SEQUENCES IN BIOSTATISTICS THEORY AND METHODS (TOPICS 1–3)**Topic 1 : Biostatistics Theory and Methods—Mathematical Statistics AND Introduction to Statistical Inference**

Code	Title	Credits
STAT 609 & STAT 610	Mathematical Statistics I and Introduction to Statistical Inference	7

Topic 2 : Biostatistical Methods—Statistical Methods Series OR Regression Theory and Application Series

Code	Title	Credits
STAT 601 & STAT 602	Statistical Methods I and Statistical Methods II	8
or		
STAT 849 & STAT 850	Theory and Application of Regression and Analysis of Variance I and Theory and Application of Regression and Analysis of Variance II	6

Topic 3 : Applied Biostatistics—Data Science AND Data Visualization

Code	Title	Credits
STAT 628 & COMP SCI 765	Data Science Practicum and Data Visualization	6

SEQUENCES IN COMPUTER SCIENCE / INFORMATICS (TOPICS 4–7)**Topic 4 : Machine Learning / AI—Intro to Artificial Intelligence AND Machine Learning**

Code	Title	Credits
COMP SCI 540 & COMP SCI 760	Introduction to Artificial Intelligence and Machine Learning	6

Topic 5 : Database Systems—Database Management AND Database Management Topics

Code	Title	Credits
COMP SCI 564 & COMP SCI 764	Database Management Systems: Design and Implementation and Topics in Database Management Systems	7

Topic 6 : Optimization—Linear Program Methods AND Nonlinear Optimization

Code	Title	Credits
COMP SCI/I SY E/ MATH/STAT 525 & COMP SCI/I SY E/ MATH/STAT 726	Linear Programming Methods and Nonlinear Optimization I	6

Topic 7 : Algorithms—Introduction to Algorithms AND Advanced Algorithms and Data Structures

Code	Title	Credits
COMP SCI 577 & COMP SCI 787	Introduction to Algorithms and Advanced Algorithms	7

SEQUENCES IN ADDITIONAL SPECIALIZATIONS (TOPICS 8-12)**Topic 8 : Clinical Informatics—Health Systems Engineering AND Health Information Systems**

Code	Title	Credits
I SY E 417 & I SY E/B M I 617	Health Systems Engineering and Health Information Systems	6

Topic 9 : Clinical Biostatistics—Clinical Trials Statistical Methods AND Epidemiological Statistical Methods

Code	Title	Credits
B M I/STAT 641 & B M I/STAT 642	Statistical Methods for Clinical Trials and Statistical Methods for Epidemiology	6

Topic 10 : Statistical Computing—Statistical Computing AND Professional Skills for Data Science

Code	Title	Credits
STAT 771 & STAT 627	Statistical Computing and Professional Skills in Data Science	6

Topic 11 : Bioinformatics / Statistical Genomics—Introduction to Bioinformatics AND Advanced Bioinformatics OR Statistical Methods for Molecular Biology

Code	Title	Credits
B M I/COMP SCI 576 & COMP SCI/ B M I 776	Introduction to Bioinformatics and Advanced Bioinformatics	6
or STAT/ B M I 877	Statistical Methods for Molecular Biology	

Topic 12 : Biomedical Image Analysis (2 of 3)—Computer Vision OR Computer Methods for Medical Image Analysis OR Statistical Methods for Medical Image Analysis

Code	Title	Credits
COMP SCI 766	Computer Vision	3
B M I/COMP SCI 767	Computational Methods for Medical Image Analysis	3
B M I/STAT 768	Statistical Methods for Medical Image Analysis	3

ADDITIONAL REQUIREMENTS

In consultation with their faculty advisor, students will select 6 credits of biology courses, 6 credits of elective courses, and a research ethics course (1 credit). Students will also complete:

A second-year literature seminar (4 credits)

Code	Title	Credits
B M I 881	Biomedical Data Science Scholarly Literature 1 Starting Fall 2019	2
B M I 882	Biomedical Data Science Scholarly Literature 2 Starting Fall 2019	2

A third-year professional skills seminar (2 credits)

Code	Title	Credits
B M I 883	Biomedical Data Science Professional Skills 1 Starting Fall 2019	1
B M I 884	Biomedical Data Science Professional Skills 2 Starting Fall 2019	1

Three semester-long research rotations concerning a substantive problem in biomedical data science, advised by a program faculty member in collaboration with a UW faculty member from the biological, biomedical, or population health sciences.

Code	Title	Credits
B M I 899	Pre-dissertator Research	3

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://www.biostat.wisc.edu/sites/default/files/Handbook2017.pdf>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 9 credits of graduate course work from other institutions toward the graduate degree credit and graduate course work (50%) requirements. Course work earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

For well-prepared advanced students, a student's program may decide to accept up to 7 credits numbered 300 or above of required or elective courses from the undergraduate work completed at UW–Madison toward fulfillment of minimum degree and minor credit requirements. However, this work would not be allowed to count toward the 50% graduate course work minimum unless taken at the 700 level or above.

This work will not appear on the graduate career portion of UW–Madison transcript nor count toward the graduate career GPA. The Graduate School's minimum graduate residence credit requirement can be satisfied only with courses taken as a graduate student at UW–Madison.

UW–Madison University Special

After admission to a graduate program, the student's program may decide to accept up to fifteen University Special student credits as fulfillment of the minimum graduate residence, graduate degree, or minor credit requirements on occasion as an exception (on a case-by-case basis). In all these cases, the student would have to pay the difference in tuition for the terms in question. UW–Madison course work taken as a University Special student would not be allowed to count toward the 50% graduate course work minimum unless taken at the 700 level or above. This work will not appear on the graduate career portion of UW–Madison transcript nor count toward the graduate career GPA.

PROBATION

The status of a student can be one of three options:

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

ADVISOR / COMMITTEE

All students are required to conduct a yearly progress report meeting with their advisor, scheduled by December 17 and completed by April 30. Failure to do so will result in a hold being placed on the student's registration.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

If students have been absent for five or more years, they must file a new Graduate School application for admission and submit it with a new application fee.

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

OTHER

Funding guarantees are not provided for students in this program. Students are encouraged to explore funding options available across campus.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Articulate the biological context of a research question and the scientific relevance of analysis results.
2. Communicate with scientific and quantitative (computational and statistical) colleagues about data analysis goals, methods, and results.
3. Extract the statistical or computational problems from a scientific problem. Develop, characterize, and implement suitable analysis methods to answer questions from biomedical data. Evaluate the validity of analysis methods.
4. Analyze data; extract knowledge and guide decisions based on biomedical data. Organize data and software so that quantitative analyses are meaningful and reproducible.
5. Critically evaluate quantitative approaches in the scientific literature.
6. Evaluate and develop study designs and recognize limitations and potential biases in research data sets.
7. Identify the ethical and regulatory issues surrounding a research project.
8. As part of a biological, biomedical or population health investigative team, serve as the leader in the area of rigorous computational and statistical investigation.

PEOPLE

Faculty: Broman, Buchanan, Burnside, Chappell, Chen, Chung, Craven, Dewey, Doan, Dyer, Elwert, Gangnon, Gianola, Gitter, Keles, Kendziorowski, Kim, Lu, Mao, Mendonça, Mumford, Newton, Ong, Page, Palta, Patel, Peissig, Rathouz (Chair), Rosa, Rosenberg, Roy, Singh, Sorkness, Tang, Wahba, Yandell, Velten, Yu, Zhang, Zhu

BOTANY

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Botany, Doctoral Minor (p. 201)
- Botany, M.S. (p. 201)
- Botany, Ph.D. (p. 205)

PEOPLE

Faculty: Professors Ane, Baum, Cameron (chair), Emshwiller, Fernandez, Gilroy, Givnish, Graham, Hotchkiss, Larget, Otegui, Spalding, Sytsma, Waller; Associate Professors Maeda, Pringle; Assistant Professors Keefover-Ring, McCulloh; Affiliate and Adjunct Faculty: Amasino, Brunet, Damschen, Spooner, Wiedenhoft, P. Zedler

BOTANY, DOCTORAL MINOR

Any student enrolled in a UW–Madison doctoral program can pursue a doctoral minor in botany. The doctoral minor offers training in the field of botany and can be tailored to a student's specific interests. A doctoral minor in botany is an excellent way to gain a fundamental breadth of understanding of the basic properties of plant life.

REQUIREMENTS

Graduate students who wish to pursue an Option A external minor in the botany department should consult a faculty member within botany (their potential minor professor) or the chair of the botany graduate committee. Courses are chosen in conjunction with the chosen botany faculty member who serves as the minor advisor, and the student's departmental advisor. A student may earn a doctoral minor in botany with 9 credits minimum in botany, including a seminar course, while in residence at UW–Madison. All 9 credits are either exclusively graduate-level botany courses numbered 700 and above or courses numbered 300 and above and identified as designed for graduate work. Directed study courses do not count toward the minor.

PEOPLE

Faculty: Professors Ane, Baum, Cameron (chair), Emshwiller, Fernandez, Gilroy, Givnish, Graham, Hotchkiss, Larget, Otegui, Spalding, Sytsma, Waller; Associate Professors Maeda, Pringle; Assistant Professors Keefover-Ring, McCulloh; Affiliate and Adjunct Faculty: Amasino, Brunet, Damschen, Spooner, Wiedenhoft, P. Zedler

BOTANY, M.S.

The Department of Botany consists of 18 faculty members with about 45 graduate students pursuing M.S. and Ph.D. degrees. The American Council on Education Rating of Graduate Program Quality ranks the department among the top five departments of botany in the country.

Graduate students work with faculty and staff on a range of projects in plant biology at all levels of organization, from molecules, through cells and organs, to populations, communities, and lineages of organisms. Major research areas include molecular, cellular, and developmental biology; structural plant biology; ecology; evolution; and systematics. We also provide advanced instruction and opportunities for research in phycology, bryology, mycology, ethnobotany, paleoecology, conservation and restoration ecology, taxonomy, genetics, and physiology.

Increasingly, graduate student projects encompass two or more of these categories. Master's students may complete a non-thesis program in conservation or restoration ecology designed to prepare them for

careers in environmental consulting, natural resource agencies, and nongovernmental organizations.

Students interested in fields bordering botany will find rich opportunities for course work, collaborative research, and seminars in many other departments and schools such as Agronomy, Bacteriology, Biochemistry, Chemistry, Engineering, Entomology, Forest and Wildlife Ecology, Genetics, Geography, Geoscience, Horticulture, Physics, Plant Breeding/Plant Genetics, Plant Pathology, Soil Science, Zoology, and the Nelson Institute for Environmental Studies. Interdisciplinary work is encouraged.

Graduate study in the Department of Botany requires a combination of advanced course work, participation in seminars, and original research. Course requirements follow one of five tracks: general botany; ecology; evolution; molecular, cellular, and developmental biology; or the non-thesis master's degree in conservation and restoration ecology. The department encourages students to pursue independent research soon after arriving. In consultation with the faculty advisor, each student selects a track that includes courses and research topics related to his or her interests and training in the array of techniques and approaches needed to pursue research.

ADMISSIONS

The Department of Botany will consider applicants for graduate degrees who surpass the minimum admissions requirements of the Graduate School. Candidates for fall admission should submit their full applications to the department by December 1 to be considered for financial support. Applications may be reviewed until April 15. All applicants are required to take the general Graduate Record Exam (GRE). The GRE subject test in Biology or in Cell and Molecular Biology is not required but, if available, will be considered. Admission is based on the applicant's statement of purpose, undergraduate record, GRE scores, letters of recommendation, experience in research, and the interests they share with one or more potential faculty advisors.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Financial support is available to qualified graduate students in the form of teaching, research and project **assistantships** and **fellowships**. Typically, there are approximately 35 graduate students who hold assistantships or fellowships in the botany department. In addition, graduate students are eligible for a number of **intradepartmental awards and grants**.

Graduate students who have a teaching, research or project assistantships of at least a 33.3% appointment (approximately 13.3 hours per week) for a fall or spring term are eligible to receive **remission of full tuition**. Fellowships or traineeships that are payrolled through the university and that carry stipends equivalent to at least a 33.3% research assistantship also qualify for remission of nonresident tuition. Tuition remission is conditionally awarded at the start of the semester based on the expectation that actual earnings during the semester will be at least 33.3% of the full-time rate. All students pay segregated fees. The only exception is that fellowships paid through the Graduate School have segregated fees waived in addition to tuition.

Assistantships and fellowships also provide **eligibility for an excellent health insurance program**, an extremely valuable benefit that provides single or family coverage that is more comprehensive than individuals can usually purchase on their own.

TEACHING ASSISTANTSHIPS

The most common source of support is a teaching assistantship. Historically, stipend rates for teaching and project assistants are governed by the Teaching Assistants' Association (TAA) bargaining unit.

To receive a teaching assistantship, candidates for admission must meet the following requirements:

- evidence (usually from the undergraduate transcript) of an appropriate background in the relevant subject matter of the course(s) to which appointment is being considered;
- evidence (usually from letters of recommendation or verbal communication) of the candidate's potential as a teaching assistant;
- an undergraduate GPA of 3.0 or above (on a 4.0 scale); and
- for students whose native language is not English, evidence of competence in spoken English through the SPEAK test that is administered by the UW. International applicants should note that a TA appointment is not normally possible during the first year of graduate study.

Current students, who apply for their first teaching assistantship, are also subject to the above criteria, as well as their performance as a graduate student. Reappointment as a teaching assistant depends upon satisfactory progress as a graduate student, satisfactory performance as a teaching assistant, and completing the Equity/Diversity TA Training.

Teaching assistants may be eligible for University teaching awards (<https://grad.wisc.edu/taawards>), including the UW–Madison Early Excellence in Teaching Award, UW–Madison Exceptional Service Award, UW–Madison Innovation in Teaching Award, UW–Madison Capstone Ph.D. Teaching Award, and the College of Letters & Science Teaching Fellow.

RESEARCH OR PROJECT ASSISTANTSHIPS

Research and project assistantships are made possible by grants awarded to individual professors for particular research programs. Recipients are selected by the individual professor concerned. Availability of research and project assistantships varies.

ADVANCED OPPORTUNITY FELLOWSHIPS

Advanced Opportunity Fellowships (AOF) are granted to the UW–Madison's Graduate School by the State of Wisconsin and are combined with other graduate education funds to support the recruitment and retention of highly qualified underrepresented students in UW–Madison graduate programs. Fellowships are competitive and merit based.

AOF funding is intended to increase the racial and ethnic diversity of the graduate student population, as well as to support economically disadvantaged and first generation college students. AOF fellowships are paid through the Graduate School by the College of Letters & Science's **Community of Graduate Research Scholars** (<http://ls.wisc.edu/current-students/graduate-students/cgrs>) (C-GRS) program.

EXTERNAL FELLOWSHIPS

Fellowships from professional societies and outside agencies provide another important source of aid for which students may apply either before or after commencing graduate work at UW–Madison. If necessary, external fellowships can often be supplemented with university funds up to prevailing university fellowship rates.

All qualified students who are US citizens, nationals or permanent resident aliens of the US are urged to apply to the National Science Foundation for the pre-doctoral fellowship competition. Students apply directly to NSF; the closing date is usually in early November. Please check the NSF website (<http://www.nsf.gov>) for the application instructions and deadline.

INTRADPARTMENTAL FELLOWSHIPS AND AWARDS

For more information on Intradepartmental Fellowships and Awards, please see the latest descriptions (<https://botany.wisc.edu/financial-support>) on the botany website.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the

advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement	30 credits
Minimum Residence Credit Requirement	16 credits
Minimum Graduate Coursework Requirement	Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (https://registrar.wisc.edu/course-guide/).
Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	Students must earn a B or above in all track coursework.
Assessments and Examinations	A written thesis or research report based on work conducted in a formal research course and a final oral exam are required of all students who expect to continue for the Ph.D. degree. All master's theses must be deposited at Memorial Library. Students who wish to terminate their graduate studies at the master's level may submit a literature review instead of a thesis.
Language Requirements	No language requirements.

COURSES REQUIRED

A minimum of 50 credits in natural sciences (undergraduate and graduate program courses combined) is required. A minimum of 6 credits in graduate-level botany courses must be completed at UW–Madison. Seminars and research credits do not count toward the 6 credits in botany. Courses may be required to address deficiencies in the following: GENETICS 466 Principles of Genetics or equivalent; CHEM 103 General Chemistry I and CHEM 104 General Chemistry II or equivalent; CHEM 341 Elementary Organic Chemistry or equivalent; a physics course including electricity and light; one semester of statistics; one semester of calculus. Contact the department for more information.

M.S. students complete a minimum of 16 credits while in residence at the UW, including:

- Courses required for their selected track (see below)
- Six (6) credits within the botany department (can also fulfill track requirements)
- Two (2) seminar courses
- Courses assigned by the Academic Advisory Committee and/or the student's M.S. committee
- Research credits

Each graduate student in botany selects one of the following tracks¹:

General Botany Track

M.S. students must have one course from at least six of the seven.

- genetics,
- biochemistry, cell or molecular biology,
- plant physiology or plant developmental biology,
- cryptogamic botany,
- plant anatomy or morphology,
- ecology, and
- evolution or systematics

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Ecology Track

M.S. students must have a minimum of five courses as follows:

- at least three courses (minimum of 9 credits) in ecology,
- one course in evolution, and
- one course in any of the following: systematics; cryptogamic botany; biochemistry, cell or molecular biology; plant physiology or plant developmental biology; plant anatomy or morphology; or genetics

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Evolution Track

M.S. students must have a minimum of five courses, at least one from each of the following:

- evolution,
- systematics or cryptogamic botany,
- population or quantitative genetics,
- ecology, and
- one course in any of the following: biochemistry, cell or molecular biology; plant physiology or plant developmental biology; or plant anatomy or morphology

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Molecular, Cellular, and Developmental Biology (MCDB) Track

M.S. students must have a minimum of five courses, at least one from each of the following:

- plant anatomy or morphology,
- biochemistry, cell or molecular biology,
- plant physiology,
- plant developmental biology or genetics, and
- one course in any of the following: ecology; systematics; evolution; or cryptogamic botany

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://uwmadison.app.box.com/v/botanyhandbook>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

No credits from other institutions are allowed to count toward the minimum graduate degree credit requirement and the minimum graduate coursework requirement.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the minimum graduate degree credit requirement and the minimum graduate coursework requirement.

UW–Madison University Special

No credits earned as a UW–Madison Special student are allowed to count toward the minimum graduate residence credit requirement, the minimum graduate degree credit requirement, or the minimum graduate coursework requirement.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

A major professor must be chosen as soon as possible after beginning graduate study and in all cases by the end of the first year. A vice major professor is required.

Students meet with an advisory committee before their first semester and with their M.S. committee by the end of their first year to plan their coursework.

Students meet with their advisor on a regular basis to assess progress.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

The master's degree should be completed within two and one-half years of study.

OTHER

Assistantships are only available for thesis M.S. and Ph.D. degrees.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Acquire and demonstrate fundamental understanding of the basic properties of plant life from the subcellular to the ecosystem level of organization.
2. Use critical elements of the methodological or theoretical framework in a specialized botanical subdiscipline to develop hypotheses, acquire scientific information, and interpret results in the context of the historical scientific literature.
3. Develop the skills of communicating scientific information, especially in written form.
4. Engage in the critical evaluation of botanical scientific data and its interpretation.
5. Recognize and apply ethical conduct in the collection, analysis, and presentation of scientific data.
6. Develop the skills essential to critical debate, discussion, and exchange of scientific information among peers and audiences of diverse intellectual and personal backgrounds.

PEOPLE

Faculty: Professors Ane, Baum, Cameron (chair), Emshwiller, Fernandez, Gilroy, Givnish, Graham, Hotchkiss, Larget, Otegui, Spalding, Sytsma, Waller; Associate Professors Maeda, Pringle; Assistant Professors Keefover-Ring, McCulloh; Affiliate and Adjunct Faculty: Amasino, Brunet, Damschen, Spooner, Wiedenhoft, P. Zedler

BOTANY, PH.D.

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phycology, bryology, mycology, ethnobotany, paleoecology, conservation and restoration ecology, taxonomy, genetics, and physiology.

Increasingly, graduate student projects encompass two or more of these categories. Master's students may complete a non-thesis program in conservation or restoration ecology designed to prepare them for careers in environmental consulting, natural resource agencies, and nongovernmental organizations.

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FUNDING

GRADUATE SCHOOL RESOURCES

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TEACHING ASSISTANTSHIPS

The most common source of support is a teaching assistantship. Historically, stipend rates for teaching and project assistants are governed by the Teaching Assistants' Association (TAA) bargaining unit.

To receive a teaching assistantship, candidates for admission must meet the following requirements:

- evidence (usually from the undergraduate transcript) of an appropriate background in the relevant subject matter of the course(s) to which appointment is being considered;
- evidence (usually from letters of recommendation or verbal communication) of the candidate's potential as a teaching assistant;
- an undergraduate GPA of 3.0 or above (on a 4.0 scale); and
- for students whose native language is not English, evidence of competence in spoken English through the SPEAK test that is administered by the UW. International applicants should note that a TA appointment is not normally possible during the first year of graduate study.

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RESEARCH OR PROJECT ASSISTANTSHIPS

Research and project assistantships are made possible by grants awarded to individual professors for particular research programs.

Recipients are selected by the individual professor concerned. Availability of research and project assistantships varies.

ADVANCED OPPORTUNITY FELLOWSHIPS

Advanced Opportunity Fellowships (AOF) are granted to the UW–Madison's Graduate School by the State of Wisconsin and are combined with other graduate education funds to support the recruitment and retention of highly qualified underrepresented students in UW–Madison graduate programs. Fellowships are competitive and merit based. AOF funding is intended to increase the racial and ethnic diversity of the graduate student population, as well as to support economically disadvantaged and first generation college students. AOF fellowships are paid through the Graduate School by the College of Letters & Science's **Community of Graduate Research Scholars** (<http://ls.wisc.edu/current-students/graduate-students/cgrs>) (C-GRS) program.

EXTERNAL FELLOWSHIPS

Fellowships from professional societies and outside agencies provide another important source of aid for which students may apply either before or after commencing graduate work at UW–Madison. If necessary, external fellowships can often be supplemented with university funds up to prevailing university fellowship rates.

All qualified students who are US citizens, nationals or permanent resident aliens of the US are urged to apply to the National Science Foundation for the pre-doctoral fellowship competition. Students apply directly to NSF; the closing date is usually in early November. Please check the NSF website (<http://www.nsf.gov>) for the application instructions and deadline.

INTRADPARTMENTAL FELLOWSHIPS AND AWARDS

For more information on Intradepartmental Fellowships and Awards, please see the latest descriptions (<https://botany.wisc.edu/financial-support>) on the botany website.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules.

Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement	51 credits
Minimum Residence Credit Requirement	32 credits
Minimum Graduate Coursework Requirement	Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.
Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	Students must earn a B or above in all track coursework and maintain a 3.00 GPA in all minor coursework.
Assessments and Examinations	<p>The preliminary examination should be taken by the end of the fourth semester in residence and must be taken by the end of the fifth semester. The preliminary exam includes a written research proposal, an oral presentation of the proposal to committee members, and an oral exam.</p> <p>At least one semester of at least a 33% TA appointment is required.</p> <p>During the final semester, candidates must present a department seminar on their dissertation research and complete a final oral exam. A written dissertation based on work conducted in a formal research course is required. All Ph.D. dissertations must be deposited at the Graduate School.</p>
Language Requirements	Language requirements are determined on an individual basis with the major professor and will depend on the area concentration within the department.
Doctoral Minor/Breadth Requirements	<p>All doctoral students are required to complete a minor.</p> <p>Option A: 9 credits from one department. Minor department signs the minor agreement.</p> <p>Option B: 9 credits distributed between two or more departments. Botany chair signs the minor agreement.</p>

REQUIRED COURSES

A minimum of 50 credits in natural sciences (undergraduate and graduate program courses combined) is required. A minimum of 6 credits in graduate-level botany courses must be completed at UW–Madison. Seminars and research credits do not count toward the 6 credits in botany. Courses may be required to address deficiencies in the following:

GENETICS 466 Principles of Genetics or equivalent; CHEM 103 General Chemistry I and CHEM 104 General Chemistry II or equivalent; CHEM 341 Elementary Organic Chemistry or equivalent; a physics course including electricity and light; one semester of statistics; one semester of calculus. Contact the department for more information.

Ph.D. students complete a minimum of 32 credits while in residence at the UW prior to earning dissertator status. These credits complete the following requirements:

- Courses required for their selected track (see below)
- Six (6) credits within the botany department (can also fulfill track requirements)
- Two (2) seminar courses, including one outside the student's track and/or outside botany
- Courses for the student's minor field of study
- Courses assigned by the Academic Advisory Committee and/or the student's Ph.D. committee

Each graduate student in botany selects one of the following tracks¹:

General Botany Track¹

Ph.D. students must have one course from each of the following.

- genetics,
- biochemistry, cell or molecular biology,
- plant physiology or plant developmental biology,
- cryptogamic botany,
- plant anatomy or morphology,
- ecology, and
- evolution or systematics

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Ecology Track¹

Ph.D. students must have a minimum of five courses as follows:

- at least three courses (minimum of 9 credits) in ecology,
- one course in evolution, and
- one course in any of the following: systematics; cryptogamic botany; biochemistry, cell or molecular biology; plant physiology or plant developmental biology; plant anatomy or morphology; or genetics

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Evolution Track¹

Ph.D. students must have a minimum of five courses, at least one from each of the following:

- evolution,
- systematics or cryptogamic botany,
- population or quantitative genetics,
- ecology, and

- one course in any of the following: biochemistry, cell or molecular biology; plant physiology or plant developmental biology; or plant anatomy or morphology

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Molecular, Cellular, and Developmental Biology (MCDB) Track ¹

Ph.D. and M.S. students must have a minimum of five courses, at least one from each of the following:

- plant anatomy or morphology,
- biochemistry, cell or molecular biology,
- plant physiology,
- plant developmental biology or genetics, and
- one course in any of the following: ecology; systematics; evolution; or cryptogamic botany

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://uwmadison.app.box.com/v/botanyhandbook>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

No credits from other institutions are allowed to count toward the minimum graduate degree credit requirement and the minimum graduate coursework requirement.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the minimum graduate degree credit requirement and the minimum graduate coursework requirement.

UW–Madison University Special

No credits earned as a UW–Madison Special student are allowed to count toward the minimum graduate residence credit requirement, the minimum graduate degree credit requirement, or the minimum graduate coursework requirement.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

A major professor must be chosen as soon as possible after beginning graduate study and in all cases by the end of the first year. A vice major professor is required.

Students meet with an advisory committee before their first semester and with their thesis committee by the end of their first year to plan their coursework.

Students are required to conduct a yearly progress report meeting with their thesis committee after passing the preliminary examination.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

The doctoral degree is typically completed within five to six years.

OTHER

Assistantships are only available for thesis M.S. and Ph.D. degrees.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Demonstrate a fundamental breadth of understanding of the basic properties of plant life from the subcellular to the ecosystem level of organization, and an ability to integrate acquired botanical expertise with knowledge of related disciplines including, but not limited to, mathematics, physical sciences, and other life sciences.
2. Apply all elements of the methodological or theoretical framework within a specialized botanical subdiscipline to skillfully develop and execute original research, thereby demonstrating intellectual and technical competency appropriate to that subdiscipline.
3. Achieve a professional level of proficiency communicating scientific research proposals and/or results in written format.
4. Develop skills in oral presentation of scientific research data to peers and general audiences.
5. Evaluate, critique, and apply critical thinking skills to the generation of hypotheses, analysis of data, and interpretation of scientific results in botany and related disciplines.

6. Value and promote professional ethics in the collection, analysis, storage, and presentation of scientific data.
7. Engage in critical and respectful debate, discussion, and exchange of scientific information among peers and audiences of diverse intellectual and personal backgrounds.
8. Appreciate the importance of professional service.

PEOPLE

Faculty: Professors Ane, Baum, Cameron (chair), Emshwiller, Fernandez, Gilroy, Givnish, Graham, Hotchkiss, Larget, Otegui, Spalding, Sytsma, Waller; Associate Professors Maeda, Pringle; Assistant Professors Keefover-Ring, McCulloh; Affiliate and Adjunct Faculty: Amasino, Brunet, Damschen, Spooner, Wiedenhoft, P. Zedler

BUSINESS—SCHOOL-WIDE

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Business Analytics, Graduate/Professional Certificate (p. 209)
- Business, Doctoral Minor (p. 210)
- Business, Environment, and Social Responsibility, Graduate/Professional Certificate (p. 210)
- Business, Ph.D. (p. 212)
- Business: General Management, M.S. (p. 216)
- Business: General Management, MBA (p. 218)
- Business: Supply Chain Management, M.S. (p. 225)
- Business: Supply Chain Management, MBA (p. 227)

PEOPLE

Faculty: Dean Anne Massey

Accounting and Information Systems—Professors Warfield (chair), Covalleski, Johnstone, Matsumura, Mayhew, Nair, Wild; Associate Professor Laplante; Assistant Professors Barr-Pulliam, Gaertner, Griffith, Lynch, Steele, Thomas

Actuarial Science, Risk Management and Insurance—Professors Schmit (chair), Frees, Rosenberg; Associate Professors Levery, Shi, Sydnor; Assistant Professor Mukherjee

Finance, Investment and Banking—Professors Ready (chair), Brown, Corbae, Eraker, Johannes, Krainer, Mello, Wright; Associate Professors Fedenia, Odders-White; Assistant Professors Chang, Gofman, Levine, Robatto, Wu

Management and Human Resources—Professors Trevor (chair), Aldag, Coff, Dunham, Gerhart; Associate Professors Eckhardt, Ganco, Posen, Stajkovic, Terlaak, Triana; Assistant Professors Honor'e, Sarada, Shin

Marketing—Professors O'Guinn (chair), Arora, Heide, Moreau, Thompson; Associate Professors Epp, Hoban, Lim, Liu, Peck, Tanner; Assistant Professors Chung, Liu, Mallucci, Polman, Weiss

Operations and Technology Management—Professors Morris (chair), De Croix, Hausch, Wemmerlov; Associate Professors Finster, Kim, Lazimy, Siemsen; Assistant Professors Bavafa, Tong

Real Estate and Urban Land Economics—Professors Yavas (chair), Malpezzi, Riddiough; Associate Professors Ghent, Quintin; Assistant Professors Diop, Luque

BUSINESS ANALYTICS, GRADUATE/PROFESSIONAL CERTIFICATE

The purpose of the Graduate Business Analytics Certificate program is to achieve three objectives: Prepare students to (1) participate in and promote the progression from data and assumptions to information (descriptive methods), (2) to apply knowledge and understanding of how tools and methods can be used to support decision making (predictive methods), and (3) ultimately to document and communicate findings that lead to decisions and plans for implementation (prescriptive methods). Basic elements of the journey have long existed, but it is the integration of these objectives that defines business analytics here in the School of Business.

The certificate prepares students to use analytics for making decisions with a business mindset—seeking answers to questions in order to define the problem, gather necessary data, convert those data to decisions, arrive at and support a business-appropriate answer, and successfully communicate that answer in a form appropriate to the audience. By combining analytics with business knowledge, we prepare our students to function successfully in the data-rich business environment. Business students understand how business operates, how to communicate successfully with others in business, and are familiar with the concept of business goals and objectives. This business perspective is central to the design and differentiation of our certificate.

ADMISSIONS

Only MBA, M.S. and M.Acc. students in the School of Business are eligible for this certificate. A student must discuss the certificate requirements with program directors and/or the certificate directors before declaring with the form at the certificate website.

REQUIREMENTS

Code	Title	Credits
GEN BUS 704	Data to Decisions	2-3
or GEN BUS 307	Business Analytics II	

One course in the area of "Analytics Tools & Methods"

One course in the area of "Analytic Steps"

One additional course from "Analytic Tools & Methods" or "Analytic Steps" that is outside the School of Business department housing the student's program.

Analytics Tools & Methods

Code	Title	Credits
ACT SCI 654	Regression and Time Series for Actuaries	3
ACT SCI 655	Health Analytics	3
MARKETNG 815	Marketing Analytics	3

OTM 442	Database Management and Applications	3
OTM 765	Contemporary Topics (Supply Chain Analytics)	1-4
R M I 660	Risk Analytics and Behavioral Science	3

Analytic Steps

Code	Title	Credits
FINANCE 635	Security Analysis	3
M H R 765	Contemporary Topics (People Analytics)	1-4
MARKETNG 710	Marketing Research	3
MARKETNG 727	Enterprise Systems and Supply Chain Management	3
OTM 752	Project Management	3
R M I 655	Risk Financing Techniques	3

LEARNING OUTCOMES

1. Apply analytic tools to prepare, manage, and analyze data for projects (DESCRIPTIVE)
2. Apply analytical tools and methods to both model business issues and appropriately assess and analyze model output (PREDICTIVE)
3. Design and manage data analysis, interpret results, and communicate answers and/or recommendations to support decision making (PRESCRIPTIVE)

PEOPLE

Don Hausch, Faculty Director
 James Morris
 Erwan Quintin
 Joan Schmit
 Enno Siemsen

BUSINESS, DOCTORAL MINOR

Non-business students may earn a doctoral minor in business by completing a minimum of 10 credits in coursework from the School of Business.

ADMISSIONS

For both minor options, an interested student should complete the following steps:

- Meet with a major advisor in your home department to determine the business subjects most relevant to your program and/or research.
- Print and complete your portion of the Minor Agreement Form (<https://uwmadison.app.box.com/s/nhsn16g10z6z9bjogwvfnf9owmjgwf2oi>).
- Consult with WSB faculty member in the area(s) where coursework is being considered. This faculty member will sign your Minor

Agreement Form to indicate approval of the course(s) shown for that field of study.

- Submit the completed Minor Agreement Form to the Ph.D. Program Office (3115 Grainger Hall) for final approval.

Coursework should begin only after receiving final written approval. A copy of the approved agreement will be kept in the Ph.D. Program Office. It is strongly recommended that you have a copy of this agreement placed in your permanent file in your home (major) department.

If you have questions about the School of Business minor options, faculty representatives, or the Minor Agreement Form, please contact the Ph.D. coordinator (phd@wsb.wisc.edu) or visit 3115 Grainger Hall.

REQUIREMENTS

UW–Madison doctoral students from departments outside of the School of Business should follow these guidelines for a minor involving business coursework. Any minor earned through the School of Business appears as “Business” on a transcript and not from a specific program.

Option 1: Complete at least 10 credits within one School of Business program (Accounting, Finance, Management and Human Resources, Marketing, Operations and Information Management, Real Estate and Urban Land Economics, or Risk Management). All courses/credits taken must be graded (A–F).

Option 2: Complete a general business minor made up of at least 10 credits from multiple programs (same as above) within the School of Business.

BUSINESS, ENVIRONMENT, AND SOCIAL RESPONSIBILITY, GRADUATE/PROFESSIONAL CERTIFICATE

Business, Environment, and Social Responsibility (BESR) is a 12-credit graduate/professional certificate that offers a suite of courses addressing the interrelations between business and its natural and social environment. Its goal is to provide graduate students the fundamental knowledge and skills to sustainably manage enterprises that integrate economic, environmental, and social dimensions into their decision-making.

Students in the program will acquire *knowledge* of (1) the causes of environmental and social challenges as relating to business, and respective policy and business responses; (2) frameworks and measurement systems for incorporating sustainability concerns into business analysis and decision-making; and (3) domains in which business activities and sustainability concerns intersect, and the management of these intersections. They further will acquire *skills* to (1) analyze the causes of and responses to environmental and social problems, as well as develop and implement solutions to these problems as managers and policymakers; (2) identify and apply frameworks for effectively incorporating sustainability considerations into the analysis and decision-making of managers and policymakers; and (3) analyze where and how environmental and social issues intersect with

business, as well as develop and implement solutions for managing these intersections.

As determined by each student's individual course path, students will acquire deeper knowledge and skills in select domains such as systems designs, risk management, green real estate, and more. Students are also encouraged but not required to participate in a variety of events and activities that provide a forum to exchange ideas and connect the business community with students and faculty interested in sustainability.

ADMISSIONS

The BESR certificate is open to any student with graduate standing at the University of Wisconsin–Madison. Before beginning the application to the graduate/professional certificate, students should gather the information listed below.

- Current GPA
- Advisor's name and email address
- Planned semester to begin the certificate

Note: For the application to be approved, it is required that the student has consent from the faculty advisor (or, where appropriate, graduate program coordinator) to participate in the BESR certificate. The student must have the advisor send an email to the certificate director at aterlaak@bus.wisc.edu confirming this consent.

For more information: Certificate advisor, aterlaak@bus.wisc.edu; bus.wisc.edu/degrees-programs/certificates/graduate/sustainability (<https://bus.wisc.edu/degrees-programs/certificates/graduate/sustainability>)

REQUIREMENTS

The required foundation course, advanced business sustainability coursework, and electives from across the campus need to tally a **minimum of 12 credits**. The slate of coursework options available for fulfilling the certificate program is shown in the table below. Students are strongly encouraged to participate in related non-credit sustainability experiences via competitions, conferences, and speaker events.

The foundation course has no prerequisites and is open to all graduate students on campus. Students will: (1) take one required foundation course (M H R/ENVIR ST 710 Challenges & Solutions in Business Sustainability) (2) choose at least 3 additional credits from a list of School of Business advanced business sustainability coursework, and (3) select up to 6 credits of additional courses from other elective coursework.

Code	Title	Credits
Required Foundational Coursework		
M H R/ ENVIR ST 710	Challenges & Solutions in Business Sustainability (spring)	3
School of Business - Advanced Business Sustainability Classes <small>choose at least 3 credits from list</small>		
OTM 770	Sustainable Approaches to System Improvement	4
REAL EST 651	Green - Sustainable Development	3
R M I 650	Sustainability, Environmental and Social Risk Management	3

Other Elective Coursework Up to 6 credits from other elective coursework can be counted towards the required 12 certificate credits

<i>School of Business</i>		
ACCT I S 700	Financial Accounting	3
ACCT I S 710	Managerial Accounting	3
ACCT I S 771	Seminar in Strategic Cost Management and Performance Measurement	3
FINANCE 700	Introduction to Financial Management	3
M H R 728	Bargaining, Negotiating and Dispute Settlement for Managers	3
M H R 723	Business Strategy	3
MARKETNG 700	Marketing Management	3
OTM 700	Operations Management	3
OTM 732	Economics for Managers	3
R M I 700	Principles of Risk Management	3
R M I/GEN BUS 701	Managing Legal Risks	3
ECON/A A E/ ENVIR ST/ URB R PL 671	Energy Economics	3
<i>College of Agricultural & Life Sciences</i>		
A A E/ECON/ F&W ECOL 531	Natural Resource Economics	3
A A E 643	Foundations of Environmental and Natural Resource Economics	3
A A E/ECON/ ENVIR ST/ URB R PL 671	Energy Economics	3
A A E 729	The Microdynamics of Environment and Development	3
A A E 760	Frontiers in Environmental and Natural Resource Economics 1	3
A A E 762	Frontiers in Environmental and Natural Resource Economics 2	3
F&W ECOL/A A E/ ENVIR ST 652	Decision Methods for Natural Resource Managers	3-4
<i>College of Agricultural & Life Sciences / College of Letters & Science</i>		
URB R PL/A A E/ ECON/ENVIR ST 671	Energy Economics	3
URB R PL/ECON/ PUB AFFR 734	Regional Economic Problem Analysis	3
URB R PL 841	Urban Functions, Spatial Organization and Environmental Form	2-3
URB R PL/ ENVIR ST 843	Land Use Policy and Planning	3
URB R PL/ ENVIR ST 865	Water Resources Institutions and Policies	3
<i>Nelson Institute for Environmental Studies</i>		
ENVIR ST/ SOIL SCI 575	Assessment of Environmental Impact	3
ENVIR ST/A A E/ ECON/URB R PL 671	Energy Economics	3

ENVIR ST 707	Professional Skills for Global Systems Analysis	1
ENVIR ST 977	Sustainable Development - Integral Perspective	3
<i>College of Engineering</i>		
E P D 660	Core Competencies of Sustainability	3
E P D 661	Industrial Ecology: Sustainability Tools in Context	3
<i>Law School</i>		
LAW 845	Water Rights Law	2-3
LAW 848	Introduction to Environmental Law	3
LAW 918	Selected Problems in International Law-Seminar "International Environmental Law & Policy" or "Climate Change, Human Rights & the Environment"	2-3
LAW 988	Selected Problems in Environmental Law-Seminar "Natural Resources Law" or "Agricultural Law & the Environment"	2-3
LAW 989	Environmental Law and Practice	3
<i>La Follette School of Public Affairs</i>		
PUB AFFR/ ENVIR ST/ POLI SCI 866	Global Environmental Governance	3
PUB AFFR/ A A E/ENVIR ST/ POP HLTH 881	Benefit-Cost Analysis	3
<i>School of Medicine and Public Health</i>		
POP HLTH/ ENVIR ST 560	Health Impact Assessment of Global Environmental Change	3
<i>School of Education</i>		
CURRIC 975	General Seminar	2-3

The list of electives is dynamic and will be adjusted as new courses are being offered and others dropped. Students may request to substitute listed electives with courses that are currently not listed. Such a request requires that the student explains how the substitute class meets the learning outcomes of the certificate and assists the student in reaching his or her individual goals for taking the certificate. The request requires approval by the certificate director in coordination with the Certificate Oversight Committee.

For courses with access restricted to School of Business students, non-business school students may select equivalent open-access lower-level courses numbered 300 and above (e.g., substitute M H R 723 Business Strategy with M H R 423 Strategic Management).

Extracurricular Activities (*Certificate students are encouraged, but not required, to engage in extracurricular activities that enhance the certificate's learning outcomes.*) These include:

- Speaker events such as the Weston Lecture Series
- Competitions such as Walmart's Sustainable Business Plan Competition and Burrill Business Plan Competition
- Conferences such as the Nelson's Institute Annual Earth Day conference and Wisconsin Sustainable Business Council Conference

LEARNING OUTCOMES

1. Gain knowledge of (i) causes of environmental and social challenges related to business and respective policy and business responses, (ii) frameworks and measurement systems for incorporating sustainability concerns into business analysis and decision-making, and (iii) domains in which business activities and sustainability concerns intersect and the management of these intersections.
2. Acquire skills to (i) analyze causes of and responses to environmental/social problems; develop and implement solutions as managers and policymakers, (ii) identify and apply frameworks for incorporating sustainability considerations into analysis and decision-making, (iii) analyze where and how environmental and social issues intersect with business and develop and implement solutions.
3. (i) develop/articulate view of role business plays in sustainability, (ii) use knowledge and skills in business to strengthen sustainability and in sustainability to strengthen business, (iii) create network of likeminded individuals, acquire ability to engage with professionals outside their fields, and grow appreciation of how different professions contribute to business sustainability.

BUSINESS, PH.D.

The School of Business Ph.D. program has a rich tradition of training scholars who can both enhance the intellectual understanding of business theory and practice and effectively transmit this knowledge to other scholars, business professionals and students.

The high scholarly productivity and leadership of the school's 80 faculty members are regularly noted in national rankings. Recent studies of U.S. and worldwide scholarly research productivity rated School of Business faculty among the top graduate business schools in the country. In addition to world-renowned recognition for research, the School of Business faculty bring a variety of real-world experience to the program.

The Ph.D. degree provides advanced instruction that actively involves the student in research. School of Business doctoral candidates share with their professors the experience of exploring the frontiers of knowledge while acquiring the spirit as well as the methods of productive scholarship. At the time of enrollment, each student is assigned a major advisor to provide program counsel and to channel communication within and between School of Business departments. The mentoring relationship between the major professor and student is one of mutual agreement.

DEGREE PROGRAM SPECIALIZATIONS

School of Business Ph.D. students select from seven specialization tracks available along with a variety of minors. Each specialization permits the student, with the assistance and direction of a major advisor, to tailor a program based on research interests and career goals. The average time needed to complete the degree program is five years.

ADMISSIONS

Admission consideration requires a four-year undergraduate degree or the equivalent, in any discipline, from an accredited institution. Work experience is not required. Applicants should have an undergraduate

minimum grade point average (GPA) of 3.0 or higher on a 4.0 scale. In addition to academic credentials, test scores, personal achievements, motivation, communication skills (written and oral) and recommendation letters are considered in the admission process at both the master's and doctoral levels.

Please note: The Graduate Management Admission Test (GMAT) or the Graduate Record Exam (GRE), taken within five years of the starting term, is required of all applicants to the School of Business Ph.D. and M.S. programs. Also, all domestic (including Puerto Rico) and international applicants whose native language is not English must submit scores from the Test of English as a Foreign Language (TOEFL). A recommended minimum TOEFL score of 106 (New iBT) and 27 Speaking, obtained within two years of the intended starting term, is needed for admission consideration. International applicants who have completed a four-year bachelor's degree in a country where the official language is English may request a waiver of the TOEFL requirement. A master's degree from an English-speaking institution does not qualify for a waiver of the TOEFL, unless you have completed a minimum of 4 years of education (undergrad and graduate) in a country where English is the native language. The school accepts IELTS and Pearson Test of English as substitutes for TOEFL.

To learn more about the application and admissions process, visit Ph.D. Admission Requirements (<https://wsb.wisc.edu/programs-degrees/doctoral-phd/admissions/admissions-requirements>).

HOW TO APPLY

Students interested in business degrees do not apply through the Graduate School application system and should instead refer to the School of Business Admissions page. (https://admissions.bus.wisc.edu/?_ga=2.47171374.802634615.1518557744-1236773262.1518557744)

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Prospective students should see the program website for funding information (<https://wsb.wisc.edu/programs-degrees/doctoral-phd/admissions/phd-financing>).

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

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Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement	51 credits
Minimum Residence Credit Requirement	32 credits
Minimum Graduate Coursework Requirement	Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.
Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.
Assessments and Examinations	Doctoral students are required to take a comprehensive preliminary/oral examination after they have cleared their record of all Incomplete and Progress grades (other than research and thesis). Deposit of the doctoral dissertation in the Graduate School is required.
Language Requirements	Contact the program for information on any language requirements.

Doctoral Minor/ Breadth Requirements	All students must complete a minor consisting of at least 10 credits.
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REQUIRED COURSES

Business Ph.D. students choose one of seven tracks¹ to complete course requirements.

Accounting and Information Systems Track

Three seminars in accounting research are required:

- Introduction to Accounting Research
- Behavioral Accounting Research
- Archival Accounting Research

Students in our program develop a basic research background in both archival and behavioral empirical research. The program is one of the most balanced programs in the country in terms of support for different research methodologies and topics. Most students ultimately specialize in the research area and methodology that best suits their skills and research interests. Both behavioral (including experimental economics) and archival methods are strongly supported.

Students also develop specialization in a related field such as economics, psychology, or sociology. Finally, students build a foundation in statistics that supports their research interests. Methodology courses in economics, agricultural economics, or psychology will generally provide a strong foundation.

¹These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Actuarial Science, Risk Management, and Insurance Track

The course sequence for Ph.D. students in actuarial science, risk management, and insurance is customized to fit each student's unique research interests and background. You will work with a Ph.D. faculty advisor to set an appropriate course sequence during your first two years of study. However, all students are expected to take the following minimum core course sequence:

- Two semesters of Ph.D.-level Microeconomic Theory
- Two semesters of Ph.D.-level Econometrics
- Panel-data statistics/econometrics
- Seminar in Actuarial Science, Risk Management, and Insurance I
- Seminar in Actuarial Science, Risk Management, and Insurance II

¹These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Finance Track

Code	Title	Credits
<i>Finance</i>		
FINANCE 920	Theory of Finance	3
FINANCE 970	Seminar- Investments (Ph.D.)	3
FINANCE 971	Seminar-Corporate Finance (Ph.D.)	3
FINANCE 972	Topics Seminar-Finance PhD	3
<i>Econometrics</i>		

ECON 709	Economic Statistics and Econometrics I	3-4
ECON 710	Economic Statistics and Econometrics II	3-4
<i>Economics</i>		
ECON 711	Economic Theory-Microeconomics Sequence	3
ECON 713	Economic Theory: Microeconomics Sequence	3
ECON 712	Economic Theory-Macroeconomics Sequence	3
or ECON 714	Economic Theory; Macroeconomics Sequence	
<i>Math</i>		
A course in Real Analysis		3
Total Credits		30-32

¹These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Operations and Information Management Track

Working with an advisor, each student chooses a minimum of four courses (12 credits) in the area of research methodology. While students are required to develop basic research background in multiple research areas, most students ultimately specialize in the research area and methodology that best suits their skills and research interests. These courses can be drawn from inside or outside the School of Business. Coursework in this group may be used to fulfill the requirements for the major and minor program.

Coursework in the candidate's major research area of interest is to be chosen together with the advisor. For a student entering the Ph.D. program with a master's degree in the major area, the required coursework is estimated to take two years. Students without a relevant master's degree may take an additional semester to complete the required coursework.

Before becoming a dissertator, Ph.D students must both complete 32 credits of coursework and pass a preliminary exam. The preliminary exam includes two parts: a written exam and an oral presentation of an original research paper.

¹These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Management and Human Resources Track

- The management and human resources department offers a slate of foundational PhD seminars across the group's core areas of research, including human resource management (HR), organizational behavior (OB), organizational theory (OT), entrepreneurship (ENT), and strategy. The seminar offerings vary from year to year. Doctoral students are expected to take all PhD seminars offered by the department.
- Required coursework in advanced research methods and statistics includes a minimum of 18 credits, consisting of two courses in statistics, two in research methodology, and two depth courses. Courses are selected in consultation with the student's advisor.
- Students may declare a secondary academic discipline as a minor (e.g., sociology, economics, psychology).

- Preliminary exams are written at the end of the second year. The exam, which takes place over two days, consists of four questions. Two questions cover the student's primary concentration, one question covers the student's secondary concentration, and there is one methods question. (The concentrations are human resource management, organizational behavior, or strategy/ENT/OT.)
- The subsequent two years of study are allocated to developing and defending a dissertation.

¹These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Marketing Track

Students complete four Ph.D. seminars in marketing at the University of Wisconsin–Madison.

Students complete four courses at the graduate level, either inside or outside the School of Business, including at least one course in the methods of data collection and at least one in the methods of data analysis.

¹These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Real Estate and Urban Land Economics Track

Code	Title	Credits
<i>Foundation Coursework</i>		
REAL EST 870	Advanced Real Estate Finance Theory	3
or REAL EST 875	Advanced Urban Land Economics	
FINANCE 920	Theory of Finance	3
ECON 709	Economic Statistics and Econometrics I	3-4
ECON 710	Economic Statistics and Econometrics II	3-4
ECON 711	Economic Theory-Microeconomics Sequence	3
ECON 712	Economic Theory-Macroeconomics Sequence	3
ECON 713	Economic Theory: Microeconomics Sequence	3

Starting in the second year, students take the real estate workshop. This workshop is designed to help students make progress toward completion of their second-year paper and their dissertation. In addition, students take a finance or economics workshop each semester beginning with the second semester in the program and continuing as long as the student is in residence.

Students are encouraged to audit both workshops during their first semester.

At the beginning of the second year, each student proposes a set of three advanced courses that form a coherent package and enhance the student's research skills. Students are free to choose elective courses offered by the economics, finance, mathematics, or statistics departments. It may also be appropriate to choose courses in computer

science, law, psychology, accounting, or other areas taught at UW–Madison.

¹These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://bus.wisc.edu/phd/current-student-resources>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 9 credits of graduate coursework from other institutions. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

With program approval and payment of the difference in tuition (between special and graduate tuition), students are allowed to count no more than 9 credits of coursework numbered 300 or above taken as a UW–Madison special student. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies. An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor.

To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

OTHER

Virtually all Ph.D. students in business are funded at a level that guarantees a minimum of four years of the following: Full tuition remission; scholarship funding; a monthly stipend; comprehensive family health insurance plan, travel funding for students presenting at academic conferences.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Articulates challenges, frontiers and limits with respect to theory, knowledge or practice within the field of study.
2. Creates research, scholarship or performance that makes a substantive contribution within the field of study.
3. Develops a proficiency in statistical analysis relevant to the field of study.
4. Demonstrates breadth within their learning experiences.
5. Communicates complex or ambiguous ideas in a clear and understandable manner.
6. Advances and articulates the value of contributions of the field of study to society.
7. Fosters ethical and professional conduct.

ACCREDITATION

ACCREDITATION

AACSB International—The Association to Advance Collegiate Schools of Business (<http://www.aacsb.edu>)

Accreditation status: Accredited. Next accreditation review: 2021–2022.

BUSINESS: GENERAL MANAGEMENT, M.S.

Founded in 1900, the School of Business established one of the first five business programs in the nation. That entrepreneurial spirit remains strong.

As a student in the School of Business, you will find yourself inspired by peers, staff, alumni, business leaders, and world-renowned faculty who are focused, collaborative, and engaged in every aspect of the student experience. You will join a highly ranked program that equips you to meet both academic and career challenges. Employers value School of Business graduates because of the comprehensive preparation this learning environment provides. Graduates possess highly sought-after general management and specialized expertise in business.

Joining collaborative, inspiring, trustworthy, and progressive School of Business alumni, Business Badgers graduate prepared to lead their organizations to success and transform the world of business. Together Forward!

ADMISSIONS

This master's program is offered for work leading to the Ph.D. Students may not apply directly for the master's, and should instead see the admissions information for the Ph.D. (p. 212)

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Contact the program for information on required assessments and examinations.

Language Requirements Contact the program for information on any language requirements.

REQUIRED COURSES

This master's degree is earned by students on the way to earning the Ph.D. in Business. Refer to the curricular requirements for specific tracks within the Business Ph.D. (p. 213) for required courses.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 9 credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW-Madison Undergraduate

No credits from a UW-Madison undergraduate degree are allowed to count toward the degree.

UW-Madison University Special

With program approval and payment of the difference in tuition (between special and graduate tuition), students are allowed to count no more than 9 credits of coursework numbered 700 or above taken as a UW-Madison University Special student. Coursework earned five or more years prior to the master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

n/a

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Demonstrate ability to diagnose and solve problems by drawing on accumulated knowledge, understanding correlation vs. causation, integrating inductive and deductive reasoning, and being aware of perceptual and conceptual biases that can affect individual and group decision-making and knowing how to correct these biases.
2. Demonstrate ability to synthesize data and inputs from multiple sources to analyze business problems.
3. Demonstrate ability to derive valid inferences from data and make recommendations based on marginal analysis of costs and benefits.
4. Communicate clearly and effectively as managers in professional settings to meet organizational goals.
5. Persuasive skills in verbal and written communication.
6. Utilize a variety of media and technologies.
7. Manage the message and its flow through an organization.
8. Develop multi-disciplinary approaches to frame and analyze complex business problems and situations.
9. Understand perspectives on the role of business in society, e.g., shareholder value as its sole objective and corporations having a social responsibility.
10. Explain how these views are shaped by globalization, environmental and social circumstances, technology, law, and the role of government.
11. Analyze the cultural, economic, and legal/regulatory issues that impact international business activities and relationships.
12. Understand that a leader motivates and inspires people while a manager manages processes, that leader and manager roles are distinct

and complementary, and that both roles are necessary for success in complex, multifaceted organizations.

13. Explain and contrast the different systems of behaviors for leaders and managers within the organization.
14. Frame, reflect on, and respond to the ethical dimensions of business decisions.
15. Demonstrate the skills and know processes to maximize team performance to successfully meet goals, both as an effective team member and leader.
16. Understand the advantages of a diverse and inclusive workforce, and demonstrate the cultural competencies necessary to manage such a workforce.
17. Analyze the impact of laws and regulations on their decisions.

ACCREDITATION

ACCREDITATION

AACSB International—The Association to Advance Collegiate Schools of Business (<http://www.aacsb.edu>)

Accreditation status: Accredited. Next accreditation review: 2021–2022.

BUSINESS: GENERAL MANAGEMENT, MBA

The MBA is a professional degree for the student preparing for a career in the business world. The cross-functional/interdisciplinary program exposes the student to each of the functional areas of business combined with a specialization in a specific area of business. Areas of specialization include corporate finance and investment banking, applied security analysis, arts administration, brand and product management, general management, marketing research, operations and technology management, real estate and urban land economics, risk management and insurance, strategic human resource management, and supply chain management.

Founded in 1900, the School of Business established one of the first five business programs in the nation. That entrepreneurial spirit remains strong.

As a student in the School of Business, you will find yourself inspired by peers, staff, alumni, business leaders, and world-renowned faculty who are focused, collaborative, and engaged in every aspect of the student experience. You will join a highly ranked program that equips you to meet both academic and career challenges. Employers value School of Business graduates because of the comprehensive preparation this learning environment provides. Graduates possess highly sought-after general management and specialized expertise in business.

Joining collaborative, inspiring, trustworthy, and progressive School of Business alumni, Business Badgers graduate prepared to lead their organizations to success and transform the world of business. Together Forward!

EVENING MBA

The School of Business offers the Evening MBA (p. 221)—a part-time program that allows students to complete an MBA degree while continuing full-time employment. The evening MBA is a 32-month, lockstep, cohort program offering a major in general management. Classes meet Monday and Thursday evenings during fall, spring and summer, and alternate Fridays and Saturdays in January. There is an international trip in the second year of the program.

EXECUTIVE MBA

The Executive MBA Program (p. 223) at the School of Business gives experienced, high-potential managers the opportunity to earn an advanced degree over 21 months without career interruption.

Offered in lock step with a single cohort, the Executive MBA Program meets every other Friday and Saturday. The curriculum is specifically designed to build on the unique knowledge and experience executives bring to the classroom.

ADMISSIONS

Admission consideration for the MBA Program requires a four-year undergraduate degree or the equivalent, in any discipline, from an accredited institution. The School of Business seeks a minimum of two years of full-time work experience along with a strong undergraduate performance. In addition to academic credentials, GMAT scores, and work experience, personal achievements, motivation, communication skills (written and oral), international exposure, and recommendation letters are considered in the admission process at both the master's and doctoral levels.

Note: The Graduate Management Admission Test (GMAT), taken within five years of the starting term, is required of all applicants to the School of Business; the Graduate Record Exam (GRE) may be an acceptable alternative on a case by case basis. All applicants whose native language is not English must submit scores from the Test of English as a Foreign Language (TOEFL), the Pearson Test of English (PTE), Intensive English as a Second Language (IELTS), or show the completion of an Interlink program. A minimum iBT TOEFL score of 100 or equivalent, obtained within two years of the intended start term, is required. International applicants who have completed a degree at an institution whose primary language of instruction was English may request a waiver of this requirement on the application.

HOW TO APPLY

Students interested in business degrees do not apply through the Graduate School application system and should instead refer either the Evening MBA admissions (<https://wsb.wisc.edu/programs-degrees/mba/evening/admissions>) or the Executive MBA admissions (<https://wsb.wisc.edu/programs-degrees/mba/executive/admissions>) information.

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from

the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Prospective students should see the program website for funding information.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

Note: The major is currently non-admitting. Students are admitted through one of the named options (sub-majors) below (p. 220).

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	Yes	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum	30 credits
Credit Requirement	
Minimum	16 credits
Residence Credit Requirement	

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Contact the program for information on required assessments and examinations.

Language Requirements Contact the program for information on any language requirements.

REQUIRED COURSES

Select a Named Option (p. 220) for courses required.

NAMED OPTIONS (SUB-MAJORS)

A named option is a formally documented sub-major within an academic major program. Named options appear on the transcript with degree conferral. Students pursuing the MBA in Business: General Management must select one of the following named options:

- Business: General Management: Evening, MBA (p. 221)
- Business: General Management: Executive, MBA (p. 223)

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

No credits of prior coursework are allowed to satisfy requirements.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

No credits of prior coursework are allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Students in the following programs are not permitted to seek dual degrees. Students must plan to attend on the dates of the academic calendar for the respective year of graduation. Students must take part in the required global learning experience (10 days). Merit scholarships are awarded at admission for the entirety of the academic program as long as student is in good academic standing. Veterans scholarships also available. Contact emba@bus.wisc.edu for details on merit veterans scholarships.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Demonstrate ability to diagnose and solve problems by drawing on accumulated knowledge, understanding correlation vs. causation, integrating inductive and deductive reasoning, and being aware of

perceptual and conceptual biases that can affect individual and group decision-making and knowing how to correct these biases.

2. Demonstrate ability to synthesize data and inputs from multiple sources to analyze business problems.
3. Demonstrate ability to derive valid inferences from data and make recommendations based on marginal analysis of costs and benefits.
4. Communicate clearly and effectively as managers in professional settings to meet organizational goals.
5. Persuasive skills in verbal and written communication.
6. Utilize a variety of media and technologies.
7. Manage the message and its flow through an organization.
8. Develop multi-disciplinary approaches to frame and analyze complex business problems and situations.
9. Understand perspectives on the role of business in society, e.g., shareholder value as its sole objective and corporations having a social responsibility.
10. Explain how these views are shaped by globalization, environmental and social circumstances, technology, law, and the role of government.
11. Analyze the cultural, economic, and legal/regulatory issues that impact international business activities and relationships.
12. Understand that a leader motivates and inspires people while a manager manages processes, that leader and manager roles are distinct and complementary, and that both roles are necessary for success in complex, multifaceted organizations.
13. Explain and contrast the different systems of behaviors for leaders and managers within the organization.
14. Frame, reflect on, and respond to the ethical dimensions of business decisions.
15. Demonstrate the skills and know processes to maximize team performance to successfully meet goals, both as an effective team member and leader.
16. Understand the advantages of a diverse and inclusive workforce, and demonstrate the cultural competencies necessary to manage such a workforce.
17. Analyze the impact of laws and regulations on their decisions.

ACCREDITATION

Accreditation

AACSB International—The Association to Advance Collegiate Schools of Business (<http://www.aacsb.edu>)

Accreditation status: Accredited. Next accreditation review: 2021-2022.

BUSINESS: GENERAL MANAGEMENT: EVENING, MBA

This is a named option in the Business: General Management MBA. (p. 218)

ADMISSIONS

Admission consideration for the MBA Program requires a four-year undergraduate degree or the equivalent, in any discipline, from an accredited institution. The School of Business seeks a minimum of two years of full-time work experience along with a strong undergraduate performance. In addition to academic credentials, GMAT scores, and work experience, personal achievements, motivation, communication skills (written and oral), international exposure, and recommendation letters are considered in the admission process at both the master's and doctoral levels.

Note: The Graduate Management Admission Test (GMAT), taken within five years of the starting term, is required of all applicants to the School of Business; the Graduate Record Exam (GRE) may be an acceptable alternative on a case by case basis. All applicants whose native language is not English must submit scores from the Test of English as a Foreign Language (TOEFL), the Pearson Test of English (PTE), Intensive English as a Second Language (IELTS), or show the completion of an Interlink program. A minimum iBT TOEFL score of 100 or equivalent, obtained within two years of the intended start term, is required. International applicants who have completed a degree at an institution whose primary language of instruction was English may request a waiver of this requirement on the application.

HOW TO APPLY

Students interested in business degrees do not apply through the Graduate School application system and should instead refer either the Evening MBA admissions (<https://wsb.wisc.edu/programs-degrees/mba/evening/admissions>) or the Executive MBA admissions (<https://wsb.wisc.edu/programs-degrees/mba/executive/admissions>) information.

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	Yes	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Contact the program for information on required assessments and examinations.

Language Requirements Contact the program for information on any language requirements.

REQUIRED COURSES

Code	Title	Credits
Year 1: Leadership Skills and Business Fundamentals		
ACCT I S 700	Financial Accounting	3
Business Ethics course		
R M I 710	Risk Management	2
GEN BUS 700	Managerial Communication	1-2
OTM 732	Economics for Managers	3
M H R 704	Managing Behavior in Organizations	3
GEN BUS 704	Data to Decisions	2-3
ACCT I S 711	Strategic Cost Management	2
Year 2: Expertise in Key Functional Areas and Global Business Understanding		
MARKETNG 700	Marketing Management	3
FINANCE 700	Introduction to Financial Management	2-3
OTM 700	Operations Management	3
Elective: Advanced Finance, Advanced Marketing, or Healthcare Management		
International Business/Global Learning Experience course		
Year 3: Advanced Skills in Leadership, Management, and Key Functional Areas		
M H R 628	Negotiations	3
M H R 723	Business Strategy	3
GEN BUS 301	Business Law	3
Elective: Advanced Finance, Advanced Marketing, or Healthcare Management		
Management Strategy and Planning course		

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

NAMED OPTION-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

No credits of prior coursework are allowed to satisfy requirements.

UW-Madison Undergraduate

No credits from a UW-Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

No credits of prior coursework are allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Students in the following programs are not permitted to seek dual degrees. Students must plan to attend on the dates of the academic calendar for the respective year of graduation. Students must take part in the required global learning experience (10 days). Merit scholarships are awarded at admission for the entirety of the academic program as long as student is in good academic standing. Veterans scholarships also available. Contact emba@bus.wisc.edu for details on merit veterans scholarships.

PROFESSIONAL DEVELOPMENT**GRADUATE SCHOOL RESOURCES**

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

**BUSINESS: GENERAL
MANAGEMENT: EXECUTIVE, MBA**

This is a named option in the Business: General Management MBA. (p. 218)

ADMISSIONS

Admission consideration for the MBA Program requires a four-year undergraduate degree or the equivalent, in any discipline, from an accredited institution. The School of Business seeks a minimum of two years of full-time work experience along with a strong undergraduate performance. In addition to academic credentials, GMAT scores, and work experience, personal achievements, motivation, communication skills (written and oral), international exposure, and recommendation letters are considered in the admission process at both the master's and doctoral levels.

Note: The Graduate Management Admission Test (GMAT), taken within five years of the starting term, is required of all applicants to the School of Business; the Graduate Record Exam (GRE) may be an acceptable alternative on a case by case basis. All applicants whose native language is not English must submit scores from the Test of English as a Foreign Language (TOEFL), the Pearson Test of English (PTE), Intensive English as a Second Language (IELTS), or show the completion of an Interlink program. A minimum iBT TOEFL score of 100 or equivalent, obtained within two years of the intended start term, is required. International applicants who have completed a degree at an institution whose primary language of instruction was English may request a waiver of this requirement on the application.

HOW TO APPLY

Students interested in business degrees do not apply through the Graduate School application system and should instead refer either the Evening MBA admissions (<https://wsb.wisc.edu/programs-degrees/mba/evening/admissions>) or the Executive MBA admissions (<https://wsb.wisc.edu/programs-degrees/mba/executive/admissions>) information.

FUNDING**GRADUATE SCHOOL RESOURCES**

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS**MINIMUM GRADUATE SCHOOL
REQUIREMENTS**

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	Yes	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Contact the program for information on required assessments and examinations.

Language Requirements Contact the program for information on any language requirements.

REQUIRED COURSES

Code	Title	Credits
Year One		
M H R 700	Organizational Behavior	3
OTM 732	Economics for Managers	3
MARKETNG 700	Marketing Management	3
ACCT I S 700	Financial Accounting	3
Values Based Leadership course		
Macro-Economics and Current Economic Environment course		
ACCT I S 710	Managerial Accounting	3
FINANCE 700	Introduction to Financial Management	2-3
MARKETNG 705	Consumer Behavior	3
Year Two		
M H R 628	Negotiations	3
M H R 704	Managing Behavior in Organizations	3
Legal Environment of Business course		
M H R 723	Business Strategy	3
FINANCE 725	Corporation Finance Theory and Practice	3
Executing Strategy course		
FINANCE/ INTL BUS 745	Multinational Business Finance	3
Global Learning Experience course		
Business in Society course		
Operations and Technology Strategy course		
Accelerating Innovation course		

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

NAMED OPTION-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

No credits of prior coursework are allowed to satisfy requirements.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

No credits of prior coursework are allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Students in the following programs are not permitted to seek dual degrees. Students must plan to attend on the dates of the academic calendar for the respective year of graduation. Students must take part in the required global learning experience (10 days). Merit scholarships are awarded at admission for the entirety of the academic program as long as student is in good academic standing. Veterans scholarships also available. Contact emba@bus.wisc.edu for details on merit veterans scholarships.

PROFESSIONAL DEVELOPMENT**GRADUATE SCHOOL RESOURCES**

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

BUSINESS: SUPPLY CHAIN MANAGEMENT, M.S.

Founded in 1900, the School of Business established one of the first five business programs in the nation. That entrepreneurial spirit remains strong.

As a student in the School of Business, you will find yourself inspired by peers, staff, alumni, business leaders, and world-renowned faculty who are focused, collaborative, and engaged in every aspect of the student experience. You will join a highly ranked program that equips you to meet both academic and career challenges. Employers value School of Business graduates because of the comprehensive preparation this learning environment provides. Graduates possess highly sought-after general management and specialized expertise in business.

Joining collaborative, inspiring, trustworthy, and progressive School of Business alumni, Business Badgers graduate prepared to lead their organizations to success and transform the world of business. Together Forward!

ADMISSIONS

This master's program is offered for work leading to the Ph.D. Students may not apply directly for the master's, and should instead see the admissions information for the Ph.D. (p. 212)

FUNDING**GRADUATE SCHOOL RESOURCES**

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS**MINIMUM GRADUATE SCHOOL REQUIREMENTS**

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS**MODE OF INSTRUCTION**

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Contact the program for information on required assessments and examinations.

Language Requirements Contact the program for information on any language requirements.

REQUIRED COURSES

This master's degree is earned by students on the way to earning the Ph.D. in Business. Refer to the curricular requirements for specific tracks within the Business Ph.D. (p. 213) for required courses.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 9 credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

With program approval and payment of the difference in tuition (between special and graduate tuition), students are allowed to count no more than 9 credits of coursework numbered 700 or above taken as a UW–Madison University Special student. Coursework earned five or more years prior to the master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Students must be enrolled full-time.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Develop appropriate supply chain strategies, and will be able to assess the financial, marketing and operational implications of such strategies.
2. Apply foundational knowledge in operations, marketing and other core business disciplines to support decision making within and across the fundamental dimensions of supply chain management planning, sourcing, making and delivering products.
3. By engaging in a wide range of applied activities, students will develop the ability to make supply chain decisions in real-world settings.
4. Identify relevant sources of data, know how to access that data, and will be able to analyze it using both statistical and optimization techniques to support supply chain decision making.
5. Identify and assess the opportunities and risks associated with global sources of supply and global markets for goods.
6. Develop a professional network of supply chain professionals in a wide variety of industries through engagement with the Executive Advisory Board, program alumni and affiliated companies and professional organizations.
7. Communicate their ideas and recommendations to individuals in all functional areas within an organization.

BUSINESS: SUPPLY CHAIN MANAGEMENT, MBA

The Wisconsin MBA in supply chain management, supported by the Grainger Center for Supply Chain Management, provides students with a personalized, industry-focused program which partners with companies known for supply chain excellence. The program provides students with an exceptional interdisciplinary education that builds on fundamental knowledge and incorporates the latest in supply chain thinking. The strategic, cross-functional curriculum takes an integrated business process view of supply chains, including marketing, sourcing, logistics, operations, and customer service. Students connect with and learn from real-world supply chain leaders and are part of a strong, close-knit community. See the program website (<https://wsb.wisc.edu/programs-degrees/mba/full-time/career-specializations/supply-chain-management>) for more information.

Founded in 1900, the School of Business established one of the first five business programs in the nation. That entrepreneurial spirit remains strong.

As a student in the School of Business, you will find yourself inspired by peers, staff, alumni, business leaders, and world-renowned faculty who are focused, collaborative, and engaged in every aspect of the student

experience. You will join a highly ranked program that equips you to meet both academic and career challenges. Employers value School of Business graduates because of the comprehensive preparation this learning environment provides. Graduates possess highly sought-after general management and specialized expertise in business.

Joining collaborative, inspiring, trustworthy, and progressive School of Business alumni, Business Badgers graduate prepared to lead their organizations to success and transform the world of business. Together Forward!

ADMISSIONS

Admission consideration for the MBA program requires a four-year undergraduate degree or the equivalent, in any discipline, from an accredited institution. The School of Business seeks a minimum of two years of full-time work experience along with a strong undergraduate performance. In addition to academic credentials, GMAT scores and work experience, personal achievements, motivation, communication skills (written and oral), international exposure and recommendation letters are considered in the admission process at both the master's and doctoral levels. You can learn more about admission to this program here (<https://wsb.wisc.edu/programs-degrees/mba/full-time/admissions>).

Note: The Graduate Management Admission Test (GMAT), taken within five years of the starting term, is required of all applicants to the School of Business; the Graduate Record Exam (GRE) may be an acceptable alternative on a case by case basis. All applicants whose native language is not English must submit scores from the Test of English as a Foreign Language (TOEFL), the Pearson Test of English (PTE), Intensive English as a Second Language (IELTS), or show the completion of an Interlink program. A minimum iBT TOEFL score of 100 or equivalent, obtained within two years of the intended start term, is required. International applicants who have completed a degree at an institution whose primary language of instruction was English may request a waiver of this requirement on the application.

HOW TO APPLY

Students interested in business degrees do not apply through the Graduate School application system and should instead refer to the School of Business Admissions page. (<https://wsb.wisc.edu/programs-degrees/mba/full-time/admissions>)

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Prospective students should see the program website (<https://wsb.wisc.edu/programs-degrees/mba/full-time>) for funding information.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Contact the program for information on required assessments and examinations.

Language Requirements Contact the program for information on any language requirements.

REQUIRED COURSES

Code	Title	Credits
Year One		
<i>Fall Semester</i>		
GEN BUS 704	Data to Decisions	3
ACCT I S 700	Financial Accounting	3
FINANCE 700	Introduction to Financial Management	3
M H R 706	Leading and Working in Teams	1
MARKETNG 700	Marketing Management	3
MARKETNG/ OTM 722	Logistics Management	3
MARKETNG 765	Contemporary Topics	1
<i>Spring Semester</i>		
M H R 723	Business Strategy	3
OTM 700	Operations Management	3
OTM 732	Economics for Managers	3
MARKETNG 724	Strategic Global Sourcing	3
MARKETNG 727	Enterprise Systems and Supply Chain Management	3
MARKETNG 765	Contemporary Topics	1
Year Two		
<i>Fall Semester</i>		
GEN BUS 710	Ethics, Integrity and Society	1
OTM 710 or OTM 770	Operations Research I Sustainable Approaches to System Improvement	3-4
MARKETNG 726	Seminar in Supply Chain Management	3
MARKETNG 725	Marketing Channels	3
MARKETNG 765	Contemporary Topics	1
Elective		3
<i>Spring Semester</i>		
MARKETNG 765	Contemporary Topics	1
Supply Chain Analytics course		3
Electives		9
Total Credits		60-61

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy/>) provide essential information regarding

general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

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PRIOR COURSEWORK

Graduate Work from Other Institutions

No credits of prior coursework are allowed to satisfy requirements.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

No credits of prior coursework are allowed to satisfy requirements.

PROBATION

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ADVISOR / COMMITTEE

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A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Students must be enrolled full-time.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Develop appropriate supply chain strategies, and will be able to assess the financial, marketing and operational implications of such strategies.
2. Apply foundational knowledge in operations, marketing and other core business disciplines to support decision making within and across the fundamental dimensions of supply chain management planning, sourcing, making and delivering products.
3. By engaging in a wide range of applied activities, students will develop the ability to make supply chain decisions in real-world settings.
4. Identify relevant sources of data, know how to access that data, and will be able to analyze it using both statistical and optimization techniques to support supply chain decision making.
5. Identify and assess the opportunities and risks associated with global sources of supply and global markets for goods.
6. Develop a professional network of supply chain professionals in a wide variety of industries through engagement with the Executive Advisory Board, program alumni and affiliated companies and professional organizations.
7. Communicate their ideas and recommendations to individuals in all functional areas within an organization.

ACCREDITATION

ACCREDITATION

AACSB International—The Association to Advance Collegiate Schools of Business (<http://www.aacsb.edu>)

Accreditation status: Accredited. Next accreditation review: 2021–2022.

CELL AND REGENERATIVE BIOLOGY

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Biotechnology, M.S. (p. 229)

BIOTECHNOLOGY, M.S.

The Master of Science (M.S.) in Biotechnology provides students with an overarching view of modern biotechnology operations, addressing fundamental scientific and legal matters, innovative technologies and complex business issues. Students thrive in an environment rich in

academic and industrial collaboration, leaving the program prepared to assume leadership roles in the biotechnology industry. Practical and results oriented, this two-year program provides the foundation necessary for succeeding and advancing in one of the fastest growing and most complex industries in the world. Top-rated UW–Madison faculty and talented business partners in Wisconsin combine their expertise to provide hands-on, problem-solving experiences while offering flexible schedules for students, including convenient weekend and evening courses.

ADMISSIONS

STEP 1: APPLY TO THE GRADUATE SCHOOL

Applications are only submitted online; paper copy applications are not available. Apply to the Graduate School online at the UW–Madison Graduate School website:

THE GRADUATE SCHOOL'S ONLINE APPLICATION ([HTTPS://GRAD.WISC.EDU/APPLY](https://grad.wisc.edu/apply))

The online application and \$75 application fee must be submitted electronically to the Graduate School before you can be considered for admission.

- Three letters of recommendation (can be initiated and processed online via the Graduate School online application)
- A one- or two-page statement of purpose (uploaded via the Graduate School online application) that provides the following:
A brief summary of your professional and academic background, a clear explanation of your short- and long-term professional goals, and a clear explanation of how the M.S. in biotechnology degree will help you meet your goals. (Please be specific to the M.S. in biotechnology degree.)
- Professional resume

Important: Select Biotechnology (**Program Code G040**) as your Intended Major Field of Study.

Additional Graduate School resources:

- Graduate School Admission Frequently Asked Questions (<https://grad.wisc.edu/admissions/faq>)
- Graduate School Admission Requirements (<https://grad.wisc.edu/admissions/requirements>)
- Information to Send to the Graduate School (<https://grad.wisc.edu/apply/requirements>)

STEP 2: SEND MATERIALS TO OUR PROGRAM OFFICE

Materials to send directly to the M.S. in Biotechnology Program:

- Your official transcripts or academic records from each institution attended must be sent to the M.S. in Biotechnology Program from the issuing university. Applications will not be considered complete until all required official transcripts have been received.

Send the above materials to the following address:

Master's Degree in Biotechnology
505 Rosa Road, Suite 118

Madison, WI
53719-1262

If you have any questions about how to apply or about the status of your application, you should contact Bryan Husk (<https://www.ms-biotech.wisc.edu/admissions.cfm#bryan>).

APPLICATION DEADLINE

Applications for fall semester are accepted until a full cohort of up to 28 students has committed to attend. Spaces are sometimes available for strong applicants until as late as June or July for domestic applicants, however, **the cutoff date for international applicants is May 1st** each year. There is no admission for spring semester.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

The M.S. in Biotechnology Program does not offer any financial aid, and **graduate students are not permitted to accept any research, project, or teaching assistantship positions that would waive tuition.** However, students may contact the Office of Student Financial Aid (<https://financialaid.wisc.edu>) to discuss federal loan programs and other lending opportunities.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	Yes	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses

and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules.

Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum 30 credits

Credit Requirement

Minimum 30 credits

Residence Credit Requirement

Minimum Graduate Coursework Requirement At least 50% of credits applied toward the graduate degree credit requirement must be completed in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements

The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Contact the program for information on required assessments and examinations.

Language Requirements Contact the program for information on any language requirements.

REQUIRED COURSES

Code	Title	Credits
Year 1, Fall Semester		
CRB 802	Business of Biotechnology: Fundamentals of Product Development	2
CRB 800	Intellectual Property, Patents and Licensing	2
CRB 804	Biotechnology Regulation and Ethics	2
CRB 803	Molecular Technologies I	2
Year 1, Spring Semester		

CRB 824	Molecular Technologies II	3
CRB 820	Biotechnology Operations	5

Year 2, Fall Semester

CRB 841	Business of Biotechnology: Contemporary Challenges and Applications	2
CRB 830	Early Drug Discovery	4
CRB 834	Molecular Technologies III	1

Year 2, Spring Semester

CRB 842	Business of Biotechnology: Sustaining Growth	2
CRB 843	Project Management and Leadership	2
CRB 844	Advanced Biotechnology: Global Perspectives	4

Total Credits 31

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (https://www.ms-biotech.wisc.edu/pdf/GraduateHandbook_MSBiotech_final.pdf) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

No prior coursework from other institutions may be applied toward program requirements.

UW–Madison Undergraduate

No prior coursework from UW–Madison undergraduate career may be applied toward program requirements.

UW–Madison University Special

No prior coursework taken as a UW–Madison University Special student may be applied toward program requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree,

the Graduate School expects them to meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

The M.S. in Biotechnology Program does not offer any financial aid, and **graduate students are not permitted to accept any research, project, or yeaching assistantship positions that would waive tuition.** Students with two or more years work experience after receiving their bachelor's degree are preferred for admission.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Apply core scientific and business principles to distinguish the difference between scientific and commercial success, and gain insight in to the challenge of balancing product usefulness with positive return on investment.
2. Understand how regulation is developed and how it interacts with business and finance to influence the formation and growth of technology companies.
3. Understand and apply modern biotechnology methods and practice, as well as effective written and oral scientific communication, through hands-on participation in the laboratory.
4. Apply knowledge of seven functional specialties (regulatory affairs, quality assurance, biomanufacturing, quality control, non-clinical development, clinical development and project management) to the coordinated process of product development.
5. Understand the processes, technologies, scientific principles and major challenges of the early drug discovery process as it continues to evolve.

6. Evaluate the potential of a product or technology based on the organizational resources required for full commercialization.

7. Understand firm-level strategic development, and apply strategic business principles in day-to-day operations.

8. Demonstrate an ability to identify a global problem, and how biotechnology may offer a novel solution(s).

9. Integrate the technical, sociological and leadership skills that are necessary to design, use and defend a global project management plan.

10. Integrate topics in science, policy, law and business in order to lead the development and commercialization of new and promising technologies.

11. Recognize and apply principles of ethical and professional conduct develop long-term networks and relationships with industry partners.

12. Understand the ethical and safety issues that help shape public policies on biotechnology and its applications.

PEOPLE

The program's instructional faculty are a blend of world-renowned scholars from across UW-Madison and dynamic leaders from the region's private biotechnology industries. All the program's faculty and staff are committed to your education and career success.

Faculty and Staff Directory (<https://www.ms-biotech.wisc.edu/directory.cfm>)

CENTER FOR HUMANITIES

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Public Humanities, Graduate/Professional Certificate (p. 232)

PUBLIC HUMANITIES, GRADUATE/PROFESSIONAL CERTIFICATE

The Graduate Certificate in the Public Humanities (<http://humanities.wisc.edu/public-humanities/graduate-certificate>) prepares graduate students to pursue careers outside of academia and trains students who wish to remain within academia to articulate new horizons for their research.

The Graduate Certificate in the Public Humanities builds on the Center for the Humanities' pioneering work in the public humanities and its related programs for graduate students, including the Public Humanities Exchange (HEX) (<http://humanities.wisc.edu/public-humanities/exchange-program>) and the Public Humanities Fellowships (<http://humanities.wisc.edu/public-humanities/graduate-fellowships>). It provides enrolled students with training and experience in the focuses on essential knowledge and skills required for professional paths that may not include traditional university teaching positions, whether in other sectors of higher education, policymaking and analysis, cultural organizations, new media, government, or research. Through coursework

and hands-on project development, the program equips students with theoretical, historical, and practical knowledge that will help them to develop alternative applications for their scholarly research and engage their scholarly methods for use in broader social and professional contexts.

ADMISSIONS

Graduate students pursuing degrees in any program at UW–Madison are welcome to seek admission into the Graduate Certificate in the Public Humanities. Students can declare their intention to pursue the certificate at any time. To receive the certificate, they must complete an application form, and are welcome to submit it at any time for review and feedback from the certificate advisor, Emily Clark. The application requires final approval by a faculty subcommittee of the Center for the Humanities' advisory committee.

REQUIREMENTS

There are no formal prerequisites for matriculation into the graduate certificate program in terms of coursework. However, only those students with B.A. or B.S. degrees from accredited colleges or universities who are currently enrolled graduate students at the University of Wisconsin–Madison are permitted to enter the graduate certificate program. Special students and undergraduates are ineligible to receive the certificate.

Graduate students pursuing any degree in any program at UW–Madison are invited to obtain a Graduate Certificate in the Public Humanities. The certificate is not a stand-alone program. Students who wish to receive the Graduate Certificate in the Public Humanities must take a core course, INTER-LS 700 Public Humanities: Theories, Methods, Cases offered each year, and develop a coherent, thematic sequence of three additional courses, for a total of 12 credits. All students also are required to undertake a capstone project.

LEARNING OUTCOMES

1. a. Discover inherent value of working collaboratively with constituencies outside of the university, especially community based program partners. b. Learn how to more effectively assess the needs and capacities of program partners and community organizations in general. c. Advance the Wisconsin Idea and its of community engagement across racial, ethnic, economic, and cultural differences.

2. a. Recognize public cultures through institutions, publication, program development and public intellectual, art, and criticism. b. Gain understanding of Public Humanities as emerging/significant field and its academic/nonacademic value. c. Understand foundations of Public Humanities/current discussions about its nature/value. d. Develop concepts/skills translating humanities for nonacademics.

3. a. Be able to critically analyze and engage with the role of the public intellectual. b. Develop alternative applications for scholarly research and training for use in a broader context.

PEOPLE

AFFILIATED FACULTY

Art

Laurie Beth Clark

Art History

Preeti Chopra

Asian American Studies

Lynet Uttal

Classics

Alex Dressler

Communication Arts

Robert Asen

Rob Howard (also Comparative Literature)

Jenell Johnson

Susan Zaeske

Comparative Literature

Vinay Dharwadker

Mary Layoun

Curriculum and Instruction

Simone Schweber

Bernadette Baker

English

Michael Bernard-Donals

Joshua Calhoun

Sara Guyer

Russ Castronovo

Tejumola Olaniyan

Folklore Studies

Janet Gilmore

Jim Leary

French and Italian

Ernesto Livorni

Gender and Women's Studies

Christine Garlough

Ellen Samuels (also English)

Geography

Kris Olds

Keith Woodward

German

Sabine Gross

Venkat Mani

History

Giuliana Chamedes

Nan Enstad

Stephen Kantrowitz

Jennifer Ratner Rosenhagen

History of Science

Dayle Delancey (also Med. Hist. and Bioethics)

Florence Hsia

Gregg Mitman

Journalism and Mass Communication

Greg Downey (also SLIS)

Jo Ellen Fair

Philosophy

Harry Brighthouse
Daniel Hausman
Steve Nadler

Political Science

John Zumbrunnen

School of Human Ecology

Connie Flanagan
Marc Nelson

School of Library and Information Studies

Jonathan Senchyne
Ethelene Whitmire

Slavic Languages and Literature

Tomislav Longinovic

Spanish and Portugese

Ellen Sapega
Ksenija Bilbija

Theatre and Drama

Michael Peterson

credits of courses in Chemical and Biological Engineering numbered 300 and above with an average grade of B or better.

PEOPLE

Faculty: Professors Abbott, Dumesic, Graham, Huber, Klingenberg, Kuech, Lynn, Maravelias (Assistant Chair), Mavrikakis (Chair), Murphy, Palecek, Pflieger, Rawlings, Root, Shusta, Yin; Associate Professors Reed and Swaney; Assistant Professors Van Lehn, and Zavala.

For interests and activities of faculty members, along with a list of selected publications for each, see the department's faculty directory.

CHEMICAL ENGINEERING, M.S.

The Department of Chemical and Biological Engineering does not consider applications for a terminal M.S. degree; the department admits only to the Ph.D. program. The M.S. degree can be awarded post admission for work completed leading to the Ph.D. degree. The M.S. degree is not a prerequisite for the Ph.D. degree.

Graduate study in the department may be directed toward the master of science or the doctor of philosophy in chemical engineering. The graduate courses are planned to train outstanding students for advanced work in research and development.

The Department of Chemical and Biological Engineering has a tradition of excellence dating back to 1905. For a century, the program has consistently ranked as one of the best in the world. The department offers research opportunities in both traditional and emerging areas of research in chemical and biological engineering. These areas include energy-related science and technology, soft and hard materials science and engineering, systems engineering and optimization, catalysis, process control and design, nanotechnology, biotechnology, biomedical engineering, complex fluids, colloid and interfacial phenomena, atomic, molecular, and multiscale modeling, polymers (synthesis and processing), micro- and nano-electronics, environmental engineering and sustainability, reactor design, and atomic-scale design of surface reactivity. These areas of research are advanced by leveraging tools from the fields of applied mathematics, statistical mechanics, kinetics and catalysis, thermodynamics, and transport phenomena.

Research in the department is highly interdisciplinary, capitalizing on programs of national prominence such as the NSF Materials Research Science and Engineering Center (MRSEC), the nation's largest NIH-funded biotechnology training program, and the Computation and Informatics in Biology and Medicine training program. Interdisciplinary research opportunities are also available through the Materials Science Program, the Center for Nanotechnology, and the Rheology Research Center. Researchers in the department have access to state-of-the-art facilities for research, including facilities for nanofabrication and the life sciences.

Graduate students in the department are encouraged to participate in international research experiences, industry internships, and entrepreneurial activities.

For interests and activities of faculty members, along with a list of selected publications for each, see the department's faculty directory (<http://directory.engr.wisc.edu/che/faculty>).

CHEMICAL AND BIOLOGICAL ENGINEERING**DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE PROFESSIONAL/CERTIFICATES**

- Chemical Engineering, Doctoral Minor (p. 234)
- Chemical Engineering, M.S. (p. 234)
- Chemical Engineering, Ph.D. (p. 237)

PEOPLE

Faculty: Professors Abbott, Dumesic, Graham, Huber, Klingenberg, Kuech, Lynn, Maravelias (Assistant Chair), Mavrikakis (Chair), Murphy, Palecek, Pflieger, Rawlings, Root, Shusta, Yin; Associate Professors Reed and Swaney; Assistant Professors Van Lehn, and Zavala.

For interests and activities of faculty members, along with a list of selected publications for each, see the department's faculty directory.

CHEMICAL ENGINEERING, DOCTORAL MINOR**REQUIREMENTS**

A Ph.D. candidate in another department who wishes to minor in chemical engineering should contact the Chemical and Biological Engineering (CBE) Graduate Program Office. A CBE minor consists of 9

ADMISSIONS

This master's program is offered for work leading to the Ph.D. Students may not apply directly for the master's, and should instead see the admissions information for the Ph.D. (p. 237)

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Financial support for qualified graduate students is available in the form of research assistantships, teaching assistantships, and fellowships.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum 30 credits

Credit Requirement

Minimum 16 credits

Residence Credit Requirement

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall 3.00 GPA required.

Graduate GPA Requirement

Other Grade Requirements Professional group of courses: Grades of B or better are required.

Elective group of courses: In general, grades of B or better are required for credit in this group, but grades of BC or C in non-CBE courses will be counted if balanced credit for credit by grades of A or AB in other courses from this group.

Assessments and Examinations An M.S. candidate must successfully complete an oral examination before a departmental examining committee of the advisor(s) plus two other CBE faculty members. The candidate may defend an M.S. thesis or an independent study project report.

Language Requirements No language requirements.

REQUIRED COURSES

To qualify for the M.S. degree, student must complete a minimum of 30 graduate-level credits (300 and above), divided into two groups:

1. Professional group: minimum of 12 credits of chemical engineering courses. At least 6 credits must be numbered 700–899 (excluding research).
2. Elective group: minimum of 12 credits of graduate courses. At least 6 of these credits shall be in departments other than CBE and shall be chosen for their relevance to chemical and biological engineering.

Up to 6 credits will be allowed for chemical and biological engineering courses numbered between 300 and 499 in groups I and II combined, provided equivalent courses were not previously taken by the student.

The independent study project will comprise a minimum of 3 credits of supervised CBE 790 Master's Research or Thesis and may involve a lab project, theoretical work, or a critical review of an advanced engineering topic.

An M.S. candidate must successfully complete an oral examination before a departmental examining committee.

When a candidate presents a thesis, no fewer than 5 nor more than 8 credits of research (CBE 790) may be counted toward the 30-credit-total requirement. When a thesis is not presented, a maximum of 6 credits of research may be counted toward the total.

Special M.S. Degree

Students who enter the program without a B.S. in chemical engineering must take the following courses, unless equivalent credits can be offered from their undergraduate studies:

Code	Title	Credits
CBE/B M E 320	Introductory Transport Phenomena	4
CBE 326	Momentum and Heat Transfer Operations	3
CBE 426	Mass Transfer Operations	3
CBE 430	Chemical Kinetics and Reactor Design	3
CBE 440	Chemical Engineering Materials	3
CBE 450 or CBE 470	Process Design Process Dynamics and Control	3

Departmental M.S. degree requirements (described above), must also be satisfied, except that eight credits rather than 12 credits will be required in the elective group. Upon matriculation, students should request approval of their proposed academic program by department faculty.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (https://www.engr.wisc.edu/app/uploads/2016/01/CBE_Academic-Policies-8-17.pdf) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count graduate coursework from other institutions toward the Minimum Graduate Degree Credit Requirement and the Minimum Graduate coursework (50%) Requirement. No credits from other institutions can be counted toward the Minimum Graduate Residence Credit Requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

A total of 7 undergraduate credits from the UW–Madison undergraduate degree may be counted toward coursework requirements. If those credits are numbered 300 or above, they may be counted toward the Minimum Graduate Degree Credit Requirement. If those credits are numbered 700 or above, they may be counted toward the Minimum Graduate coursework (50%) Requirement. No credits can be counted toward the Minimum Graduate Residence Credit Requirement.

Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison University Special

With program approval, students are allowed to count up to 15 credits of coursework numbered 300 or above taken as a UW–Madison Special student toward the Minimum Graduate Residence Credit Requirement, and the Minimum Graduate Degree Credit Requirement and the Minimum Graduate Coursework (50%) Requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

The thesis examining committee comprises the advisor(s) plus two other CBE faculty members. The candidate may defend an M.S. thesis or an independent study project report.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Admitted students are offered research assistantships to support the pursuit of dissertation or degree research in chemical engineering. The stipend, after tuition and fees, is guaranteed for the duration of a student's graduate studies provided satisfactory progress is made toward their degree. Support for students receiving external funding or other program opportunities are reviewed case by case. Although students can be awarded M.S. degrees, there is no direct admission to the M.S. program.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Demonstrate a strong understanding of mathematical, scientific, and engineering principles in the field.

2. Demonstrate an ability to formulate, analyze, and solve advanced engineering problems.
3. Demonstrate creative, independent problem solving skills.
4. Apply the latest scientific and technological advancements, advanced techniques, and modern engineering tools to these problems.
5. Recognize and apply principles of ethical and professional conduct.

PEOPLE

Faculty: Professors Abbott, Dumesic, Graham, Huber, Klingenberg, Kuech, Lynn, Maravelias (Assistant Chair), Mavrikakis (Chair), Murphy, Palecek, Pflieger, Rawlings, Root, Shusta, Yin; Associate Professors Reed and Swaney; Assistant Professors Van Lehn, and Zavala.

For interests and activities of faculty members, along with a list of selected publications for each, see the department's faculty directory.

CHEMICAL ENGINEERING, PH.D.

The Department of Chemical and Biological Engineering has a tradition of excellence dating back to 1905. For over a century, the program has consistently ranked as one of the best in the world. The department offers research opportunities in both traditional and emerging areas of research in chemical and biological engineering. These areas include energy-related science and technology, soft and hard materials science and engineering, systems engineering and optimization, catalysis, process control and design, nanotechnology, biotechnology, biomedical engineering, complex fluids, colloid and interfacial phenomena, atomic, molecular, and multiscale modeling, polymers (synthesis and processing), micro- and nano-electronics, environmental engineering and sustainability, reactor design, and atomic-scale design of surface reactivity. These areas of research are advanced by leveraging tools from the fields of applied mathematics, statistical mechanics, kinetics and catalysis, thermodynamics, and transport phenomena. The graduate courses are planned to train outstanding students for advanced work in research and development. Graduate students in the department are encouraged to participate in international research experiences, industry internships, and entrepreneurial activities.

Research in the department is highly interdisciplinary, capitalizing on programs of national prominence such as the NSF Materials Research Science and Engineering Center (MRSEC), the nation's largest NIH-funded biotechnology training program, and the Computation and Informatics in Biology and Medicine training program. Interdisciplinary research opportunities are also available through the Materials Science Program, the Center for Nanotechnology, and the Rheology Research Center. Researchers in the department have access to state-of-the-art facilities for research, including facilities for nanofabrication and the life sciences.

ADMISSIONS

Students with a strong background in chemical engineering or related field and a strong interest in research are encouraged to apply for admission. Most applicants accepted into the program have grade-point averages well above the Graduate School minimum of 3.0 on a 4.0 scale. All applicants are required to take the Graduate Record Exam (GRE) general test. Applications are evaluated on the basis of previous academic record, GRE scores, letters of recommendation, and personal

statement. The Department of Chemical and Biological Engineering does not consider applications for a terminal M.S. degree; the department admits only to the Ph.D. An M.S. degree can be awarded post admission as an alternative to the Ph.D. degree. The M.S. degree is not a prerequisite for the Ph.D. degree.

Applicants with degrees in the physical or life sciences or other engineering fields are encouraged to apply for admission into the Ph.D. graduate program. These students should contact the chair of the graduate admissions committee to discuss their preparation for the graduate program. Students are not accepted for spring semester except when space is available. Fall applications and supporting materials **must be received by December 15**.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Students admitted to the graduate program are guaranteed financial support from the department in the form of research assistantships, teaching assistantships and fellowships. Support will continue as long as the student maintains satisfactory progress toward their degree.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 51 credits

Minimum Residence Credit Requirement 32 credits

Minimum Graduate Coursework Requirement Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements At least two of the core courses must be taken in the first semester of residence in the graduate program, and at least four core graduate courses must be completed with grades of B or better by the end of the second semester of residence. Students are expected to take a total of four courses in their first semester of residence. A student who receives one grade of BC or lower in a core course remains in the Ph.D. program, but must earn grades of B or better in the other four courses.

To qualify for the Ph.D. program, a graduate student's GPA in four core CBE courses and grade on the prelim exam must sum to 6.0 or higher.

Assessments and Examinations A Ph.D. candidate who has met the grade requirements must complete a preliminary exam consisting of a written report and oral examination.

During the fall semester of the fourth year of the program, candidates will participate in a mandatory research progress meeting with their thesis committee.

The Ph.D. candidate defends a written thesis in a final oral examination.

Language Requirements No language requirements.

Doctoral Minor/Breadth Requirements

Students must complete minor requirements, elective course requirements, and a teaching assistant requirement.

In addition to studies in chemical and biological engineering, the Ph.D. candidate is required to undertake a program of coursework in a field other than chemical and biological engineering. This requirement may be satisfied by a departmental minor (option A) or a distributed minor (option B).

The minor, whether Option A or B, is designed to represent a coherent body of work, and should not be simply an after-the-fact ratification of a number of courses taken outside the major department. To ensure coherence, the student must consult with his or her advisor. The Ph.D. Minor Agreement Form should be submitted for approval at an early date, before the student is halfway through the proposed course sequence.

REQUIRED COURSES

Students must complete at least six semester courses (totaling at least 18 credits) in the CBE department. These classroom courses shall be in the range numbered 500-899 and will not be laboratory courses, Independent Studies or Research. Grades of B or better are required in all CBE courses used towards degree requirements.

At least four of the six CBE courses shall be selected from these core graduate courses:

Code	Title	Credits
CBE 620	Intermediate Transport Phenomena	3
CBE 660	Intermediate Problems in Chemical Engineering	3
CBE 710	Advanced Chemical Engineering Thermodynamics	3
CBE 735	Kinetics and Catalysis	2-3
CBE 781	Biological Engineering: Molecules, Cells & Systems	3

At least two of the core graduate courses must be taken in the first semester of residence in the graduate program, and at least four core graduate courses must be completed with grades of B or better by the end of the second semester of residence. Students are expected to take a total of four courses in their first semester of residence.

The requirement of four core CBE graduate courses shall not be met by substitution of other courses. Students matriculating with an M.S. degree from another university may, with department approval, use up to two courses from their M.S. work toward the requirement of six CBE graduate courses.

Students taking advanced courses outside the department in excess of minor requirements may, with department approval, use up to two of these courses toward the requirement of six CBE graduate courses. Seminar courses may not be used to satisfy CBE course requirements.

Elective course requirement: Students must complete at least one course totaling at least three credits. A *B average* is required. Pass/fail or audit courses may not be used for the elective course requirement. Courses used to satisfy the minor program may not be used for the elective course requirement. Advisor approval is required and secured through

submission of the Ph.D. Elective Course Approval Form. Elective courses can be foreign language courses.

Teaching assistantship: Each student in the Ph.D. program is required to serve as a teaching assistant (TA) for two semesters. Under normal circumstances, each student should serve as a TA one semester of the second year and one semester of the third year. Requests for alternate arrangements, partial or full waiver of the requirement, should be submitted in writing to the graduate credentials committee.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (https://www.engr.wisc.edu/app/uploads/2016/01/CBE_Academic-Policies-8-17.pdf) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count graduate coursework from other institutions toward the Minimum Graduate Degree Credit Requirement and the Minimum Graduate coursework (50%) Requirement. No credits from other institutions can be counted toward the Minimum Graduate Residence Credit Requirement. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW-Madison Undergraduate

A total of 7 undergraduate credits from the UW-Madison undergraduate degree may be counted toward coursework requirements. If those credits are numbered 300 or above, they may be counted toward the Minimum Graduate Degree Credit Requirement. If those credits are numbered 700 or above, they may be counted toward the Minimum Graduate coursework (50%) Requirement. No credits can be counted toward the Minimum Graduate Residence Credit Requirement. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW-Madison University Special

With program approval, students are allowed to count up to 15 credits of coursework numbered 300 or above taken as a UW-Madison Special student toward the Minimum Graduate Residence Credit Requirement, and the Minimum Graduate Degree Credit Requirement and the Minimum Graduate Coursework (50%) Requirement. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

PROBATION

A student who receives more than one grade of BC or lower in core graduate courses will be placed in the M.S. program. Upon completion of the M.S. program, the student may petition the full faculty for readmission to the Ph.D. program.

A student who does not receive an aggregate score of 6.0 or higher in the qualifying process is placed in the M.S. program. Upon completion of the M.S. program, the student may petition the full faculty to be readmitted to the Ph.D. program.

Students placed in the M.S. program are expected to finish the M.S. program within five semesters of admission into the Ph.D. program.

ADVISOR / COMMITTEE

All students are required to conduct a fourth year research progress meeting with their thesis committee after passing the preliminary examination.

In consultation with the major professor, the student chooses an examination committee of five faculty members, including at least one, but not more than two, from outside the department. It is anticipated that three members of the prelim exam committee (the advisor and two faculty members in the same general research area) will serve on the final oral examination committee.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

The Graduate School requires that the final oral examination for the Ph.D. must be taken within five years of passing the preliminary exam or the student will be required to take another preliminary exam.

The CBE department expects students to complete their Ph.D. degree within five years. Any student unable to defend her or his thesis in this period must petition the faculty for an extension by July 1 of the fifth year, specifying reasons for the request and length of requested extension.

OTHER

Admitted students are offered research assistantships to support the pursuit of dissertation or degree research in chemical engineering. The stipend, after tuition and fees, is guaranteed for the duration of a student's graduate studies provided satisfactory progress is made toward their degree. Support for students receiving external funding or other program opportunities are reviewed case by case. Although students can be awarded M.S. degrees, there is no direct admission to the M.S. program.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PROGRAM RESOURCES

The CBE Graduate Program office coordinates on-going professional development workshops. Topics have included: life in industry, ethical decision making, intellectual property agreements, maintaining self-motivation, how to utilize software in creating figures, effective management of undergraduate researchers, effective management of your thesis advisor and individual development plans (IDPs).

Also, the Graduate School Office of Professional Development offers training opportunities for graduate students and this information is e-mailed to all of the CBE grad students on a regular basis. Examples of these training offerings include sharing of information about DELTA, dissertation writing, grant writing and job search strategies.

In order to foster effective teaching among our graduate students, all students are required to serve as a TA for two semesters. Before graduate students are allowed to TA, each must participate in the New Educator's Orientation (NEO) training offered each semester. They are also encouraged to connect with the University's DELTA program.

LEARNING OUTCOMES

1. Demonstrate an ability to synthesize knowledge from a subset of the biological, physical, and social sciences to help frame problems critical to the future of their discipline.
2. Conduct original research.
3. Demonstrate an ability to create new knowledge and communicate it to their peers.
4. Fosters ethical and professional conduct.

PEOPLE

Faculty: Professors Abbott, Dumesic, Graham, Huber, Klingenberg, Kuech, Lynn, Maravelias (Assistant Chair), Mavrikakis (Chair), Murphy, Palecek, Pflieger, Rawlings, Root, Shusta, Yin; Associate Professors Reed and Swaney; Assistant Professors Van Lehn, and Zavala.

For interests and activities of faculty members, along with a list of selected publications for each, see the department's faculty directory.

CHEMISTRY

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Chemistry, Doctoral Minor (p. 241)
- Chemistry, M.S. (p. 241)
- Chemistry, Ph.D. (p. 244)

PEOPLE

PROFESSORS

Berry, John

Blackwell, Helen
 Brunold, Thomas
 Burke, Steven
 Burstyn, Judith (Chair)
 Cavagnero, Silvia
 Choi, Kyoung-Shin
 Coon, Joshua
 Cui, Qiang
 Ediger, Mark
 Gellman, Samuel
 Hamers, Robert
 Hermans, Ive
 Jin, Song
 Landis, Clark
 McMahon, Robert
 Moore, John
 Nathanson, Gilbert
 Record, Thomas
 Schwartz, David
 Shakhashiri, Bassam
 Sibert, Edwin (Associate Chair)
 Smith, Lloyd
 Stahl, Shannon
 Weisshaar, James
 Woods, Claude
 Wright, John
 Yethiraj, Arun
 Yoon, Tehshik
 Zanni, Martin

ASSOCIATE PROFESSORS

Bertram, Timothy
 Fredrickson, Daniel
 Schmidt, Jordan
 Schomaker, Jennifer

ASSISTANT PROFESSORS

Buller, Andrew
 Garand, Etienne
 Goldsmith, Randall
 Wickens, Zachary

AFFILIATE PROFESSORS

Abbott, Nicholas (Professor of Chemical and Biological Engineering)
 Forest, Katrina (Professor of Bacteriology)
 Ge, Ying (Associate Professor of Cell and Regenerative Biology)
 Gilbert, Pupa (Professor of Physics)
 Golden, Jennifer (Assistant Professor of Pharmacy)
 Gopalan, Padma (Professor of Materials Science and Engineering)
 Jackson, Catherine (Assistant Professor of History of Science)
 Kuech, Thomas (Professor of Chemical and Biological Engineering)
 Li, Lingjun (Professor of Pharmacy)
 Lynn, David (Professor of Chemical and Biological Engineering)
 Mecozzi, Sandro (Associate Professor of Pharmacy)
 Middlecamp, Catherine (Professor, Nelson Institute for Environmental Studies)
 Pedersen, Joel (Professor of Soil Science)
 Tang, Weiping (Associate Professor of Pharmacy)
 Weibel, Douglas (Professor of Biochemistry)
 Yu, Lian (Professor of Pharmacy)

CHEMISTRY ELECTRONICS SHOP

Goebel, William (Electronics Technician)

CHEMISTRY MACHINE SHOP

Martin, Mathew (Instrument Maker - Advanced)
Mullarkey, James (Instrument Maker - Advanced)
Myers, Steven (Machine Shop Supervisor)
Schneider, Kendall (Instrument Maker - Advanced)

PAUL BENDER CHEMISTRY INSTRUMENTATION CENTER (CIC)

Fry, Charles (Director of the NMR Laboratory)
Guzei, Iliia (Director of the X-Ray Laboratory)
Hofstetter, Heike (Assistant Director of the NMR Laboratory)
Shanks, Robert (Senior Instrument Technologist)
Vestling, Martha (Director of the Mass Spectrometry Laboratory)
Zhu, Lingchao (Instrument Technologist)

RESEARCH SUPPORT STAFF

Bates, Desiree (Computational Chemistry Leader)
Drier, Tracy (Master Glassblower)
McGuire, Paul (High Performance Computing Systems Administrator)
Silver, Alan (Computer Systems Administrator)

CHEMISTRY, DOCTORAL MINOR

The mission of the Department of Chemistry at the University of Wisconsin–Madison is to conduct world-class, groundbreaking research in the chemical sciences while offering the highest quality of education to undergraduate students, graduate students, and postdoctoral associates. Our leadership in research includes the traditional areas of physical, analytical, inorganic, and organic chemistry, and has rapidly evolved to encompass environmental chemistry, chemical biology, biophysical chemistry, soft and hard materials chemistry, and nanotechnology. We pride ourselves on our highly interactive, diverse, and collegial scientific environment. Our emphasis on collaboration connects us to colleagues across campus, around the country, and throughout the world.

ADMISSIONS

The associate chair of the Department of Chemistry approves all minors for the department.

REQUIREMENTS

The Department of Chemistry follows the guidelines of the Graduate School with regard to minor requirements. For a student in an external department, a minimum of 9 credits in chemistry must be completed to fulfill the minor requirement. All grade requirements of the Graduate School must be adhered to.

A student in chemistry may fulfill their minor requirement in the chemistry department by taking courses in a single path outside of their major path. For example, a chemistry graduate student who majors in the analytical path may fulfill their minor requirement by successfully completing 9 credits in the physical path.

CHEMISTRY, M.S.

The mission of the Department of Chemistry at the University of Wisconsin–Madison is to conduct world-class, groundbreaking research in the chemical sciences while offering the highest quality of education to undergraduate students, graduate students, and postdoctoral associates. Our leadership in research includes the traditional areas of physical, analytical, inorganic, and organic chemistry, and has rapidly evolved to encompass environmental chemistry, chemical biology, biophysical chemistry, soft and hard materials chemistry, and nanotechnology. We pride ourselves on our highly interactive, diverse, and collegial scientific environment. Our emphasis on collaboration connects us to colleagues across campus, around the country, and throughout the world.

The Department of Chemistry offers a master of science in chemistry. Specializations within the program are analytical, inorganic, materials, organic, and physical chemistry as well as chemical biology. Breadth coursework may be taken in other departments including physics, mathematics, computer sciences, biochemistry, chemical engineering, and in fields other than the student's specialization within the Department of Chemistry.

Excellent facilities are available for research in a wide variety of specialized fields including synthetic and structural chemistry; natural product and bio-organic chemistry; molecular dynamics and photochemistry; biophysical, bioanalytical, and bioinorganic chemistry; spectroscopy (including magnetic resonance and microwave), theoretical and experimental chemical physics, chemical dynamics, quantum and statistical mechanics; macromolecular and polymer chemistry, materials science, surface and solid-state chemistry; x-ray crystallography, lasers, and light scattering; and chemical education. Programs are assisted by department computing and instrument centers and by other facilities on campus including those of the Division of Information Technology (DoIT).

Information on the research fields of faculty members is available on the chemistry website (<http://www.chem.wisc.edu>).

Financial assistance is not guaranteed to master's candidates, but most can obtain positions as teaching assistants.

ADMISSIONS

There are two tracks leading to the Master of Science in Chemistry. Currently the department does not directly admit students seeking the master's degree via either track, except under special circumstances, such as being employed by a local company or in the military. Ph.D. candidates often obtain a Master's degree on the way to completion of their doctoral degrees. To obtain a master of science (M.S.) degree, the student must meet both the Department of Chemistry and the Graduate School requirements.

Prospective master's candidates are expected to have satisfactorily completed the equivalent in class and lab of the fundamental courses in chemistry offered at UW–Madison, one year of physics, and mathematics through calculus. Students who have not completed all the prerequisites may be admitted in exceptional cases, but any deficiencies must be made up in the first year of graduate study.

A grade point average of 3.0 (on a 4.0 scale) in the last 60 hours of undergraduate work is the minimum required for admission to graduate studies. The Graduate Record Exam (GRE) is also required. The Chemistry

subject test is required for international applicants and strongly encouraged for domestic students. Students for whom English is not the native language are required to present scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS). Before teaching assistant appointments can be finalized, students for whom English is a second language must participate in the SPEAK Test, the institutional version of the Test of Spoken English (TSE).

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the

advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations There are currently no assessments or examinations required by the chemistry department. Students must meet all Graduate School grade requirements.

Language Requirements There are currently no language requirements for the master's degree in Chemistry.

REQUIRED COURSES

Of the 30 credits required for the Master's degree, at least 24 must be completed in the chemistry department. The remaining 6 can be from chemistry or related topic areas such as physics, mathematics, computer science, or business. The selection of courses must be approved by the student's advisor.

There are two tracks leading to the Master of Science in Chemistry.

Research Master's Degree Track ¹

The Research M.S. requires 30 credits, at least 15 of which must come from research or advanced lab work. A thesis or written final report, submitted to the advisor, is also required. The research credits obtained before you join a research group do not count toward the degree. The credits from CHEM 607 Laboratory Safety and CHEM 901 Seminar-Teaching of Chemistry do not count toward the degree.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Coursework Master's Degree Track ¹

The coursework M.S. requires 30 credits, no more than 8 of which may be from research or advanced lab work. The research credits obtained before you join a research group do not count toward the degree. The credits from CHEM 607 Laboratory Safety and CHEM 901 Seminar-Teaching of Chemistry do not count toward the degree.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<http://chem.wisc.edu/content/graduate>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 12 credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

Up to 7 credits numbered 300 or above from a UW–Madison undergraduate career are allowed to count toward the minimum graduate degree credit requirement; if those 7 credits are numbered 700 or above from a UW–Madison undergraduate career, they are allowed to count toward the minimum graduate coursework requirement. **All credits so counted** must be over and above the minimum credits that were required by the original undergraduate degree. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison University Special

With program approval, students are allowed to count no more than 15 credits of coursework numbered 300 or above taken as a UW–Madison Special student toward the residence and degree credit requirements; if those 15 credits of coursework taken as a UW–Madison Special student are numbered 700 or above, they are allowed to count toward the minimum graduate coursework requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

All admitted Ph.D. graduate students receive tuition remission and a stipend, guaranteed for 10 semesters, as long as progress to the degree is made.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Articulates, critiques, and elaborates the theories, research methods, and approaches to inquiry in an area of chemistry.
2. Identifies sources and assembles evidence pertaining to questions or challenges in an area of chemistry.
3. Demonstrates understanding of chemical science in a historical, social, or global context.
4. Demonstrates the ability to select and utilize appropriate methodologies and practices to solve chemical problems.
5. Evaluates and synthesizes information pertaining to questions and challenges in an area of chemistry.
6. Communicates clearly in both written and oral formats.
7. Recognizes and applies principles of ethical and professional conduct.

PEOPLE

PROFESSORS

Berry, John
 Blackwell, Helen
 Brunold, Thomas
 Burke, Steven
 Burstyn, Judith (Chair)
 Cavagnero, Silvia
 Choi, Kyoung-Shin
 Coon, Joshua
 Cui, Qiang
 Ediger, Mark
 Gellman, Samuel
 Hamers, Robert
 Hermans, Ive
 Jin, Song
 Landis, Clark
 McMahon, Robert
 Moore, John
 Nathanson, Gilbert
 Record, Thomas
 Schwartz, David
 Shakhashiri, Bassam
 Sibert, Edwin (Associate Chair)
 Smith, Lloyd
 Stahl, Shannon
 Weisshaar, James
 Woods, Claude
 Wright, John
 Yethiraj, Arun
 Yoon, Tehshik
 Zanni, Martin

ASSOCIATE PROFESSORS

Bertram, Timothy
 Fredrickson, Daniel
 Schmidt, Jordan
 Schomaker, Jennifer

ASSISTANT PROFESSORS

Buller, Andrew
 Garand, Etienne
 Goldsmith, Randall
 Wickens, Zachary

AFFILIATE PROFESSORS

Abbott, Nicholas (Professor of Chemical and Biological Engineering)
 Forest, Katrina (Professor of Bacteriology)
 Ge, Ying (Associate Professor of Cell and Regenerative Biology)
 Gilbert, Pupa (Professor of Physics)
 Golden, Jennifer (Assistant Professor of Pharmacy)
 Gopalan, Padma (Professor of Materials Science and Engineering)
 Jackson, Catherine (Assistant Professor of History of Science)
 Kuech, Thomas (Professor of Chemical and Biological Engineering)
 Li, Lingjun (Professor of Pharmacy)
 Lynn, David (Professor of Chemical and Biological Engineering)
 Mecozzi, Sandro (Associate Professor of Pharmacy)

Middlecamp, Catherine (Professor, Nelson Institute for Environmental Studies)

Pedersen, Joel (Professor of Soil Science)

Tang, Weiping (Associate Professor of Pharmacy)

Weibel, Douglas (Professor of Biochemistry)

Yu, Lian (Professor of Pharmacy)

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Goebel, William (Electronics Technician)

CHEMISTRY MACHINE SHOP

Martin, Mathew (Instrument Maker - Advanced)

Mullarkey, James (Instrument Maker - Advanced)

Myers, Steven (Machine Shop Supervisor)

Schneider, Kendall (Instrument Maker - Advanced)

PAUL BENDER CHEMISTRY
INSTRUMENTATION CENTER (CIC)

Fry, Charles (Director of the NMR Laboratory)

Guzei, Ilia (Director of the X-Ray Laboratory)

Hofstetter, Heike (Assistant Director of the NMR Laboratory)

Shanks, Robert (Senior Instrument Technologist)

Vestling, Martha (Director of the Mass Spectrometry Laboratory)

Zhu, Lingchao (Instrument Technologist)

RESEARCH SUPPORT STAFF

Bates, Desiree (Computational Chemistry Leader)

Drier, Tracy (Master Glassblower)

McGuire, Paul (High Performance Computing Systems Administrator)

Silver, Alan (Computer Systems Administrator)

CHEMISTRY, PH.D.

The mission of the Department of Chemistry at the University of Wisconsin–Madison is to conduct world-class, groundbreaking research in the chemical sciences while offering the highest quality of education to undergraduate students, graduate students, and postdoctoral associates. Our leadership in research includes the traditional areas of physical, analytical, inorganic, and organic chemistry, and has rapidly evolved to encompass environmental chemistry, chemical biology, biophysical chemistry, soft and hard materials chemistry, and nanotechnology. We pride ourselves on our highly interactive, diverse, and collegial scientific environment. Our emphasis on collaboration connects us to colleagues across campus, around the country, and throughout the world.

The Department of Chemistry is ranked very highly in all recent national rankings of graduate programs. We offer a doctor of philosophy in chemistry. Specializations within the program are analytical, inorganic, materials, organic, and physical chemistry as well as chemical biology. Breadth coursework may be taken in other departments including physics, mathematics, computer sciences, biochemistry, chemical engineering, and in fields other than the student's specialization within the Department of Chemistry.

Excellent facilities are available for research in a wide variety of specialized fields including synthetic and structural chemistry; natural product and bio-organic chemistry; molecular dynamics and photochemistry; biophysical, bioanalytical, and bioinorganic chemistry; spectroscopy (including magnetic resonance and microwave), theoretical

and experimental chemical physics, chemical dynamics, quantum and statistical mechanics; macromolecular and polymer chemistry, materials science, surface and solid-state chemistry; x-ray crystallography, lasers, and light scattering; and chemical education. Programs are assisted by department computing and instrument centers and by other facilities on campus including those of the Division of Information Technology (DoIT).

Information on the research fields of faculty members is available on the chemistry website (<http://www.chem.wisc.edu>).

The department offers opportunities for graduate students to obtain teaching experience. Financial assistance is available to most graduate students in the form of teaching or research assistantships, fellowships, or traineeships.

ADMISSIONS

Prospective graduate students are expected to have satisfactorily completed the equivalent in class and lab of the fundamental courses in chemistry offered at UW–Madison, one year of physics, and mathematics through calculus. Students who have not completed all the prerequisites may be admitted in exceptional cases, but any deficiencies must be made up in the first year of graduate study.

A grade point average of 3.0 (on a 4.0 scale) in the last 60 hours of undergraduate work is the minimum required for admission to graduate studies. The Graduate Record Exam (GRE) is also required. The subject test is required for international applicants, and strongly recommended for domestic students. Students for whom English is not the native language are required to present scores from the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS). Before teaching assistant appointments can be finalized, students for whom English is a second language must participate in the SPEAK Test, the institutional version of the Test of Spoken English (TSE).

Admission deadline for the fall semester is December 15. Although some exam scores or recommendation letters might not have been received at that time, the application should be substantially complete by then to be considered for admission in the following fall.

Admission for the spring semester is not the norm, and applications for spring should only be submitted following discussion with a faculty member and/or the director of graduate study. Most summer admissions are applicants who were already admitted for the fall semester, and decided to start earlier so they could serve as a teaching assistant or research assistant.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from

the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

With few exceptions, students admitted to the Ph.D. program in the Department of Chemistry are guaranteed support for five continuous academic years. The support will be at the level of at least 50% time, and may come from a variety of sources—teaching assistantships, research assistantships, project assistantships, traineeships, and fellowships. This guarantee requires that you remain a graduate student in good standing in the Ph.D. program in the Department of Chemistry, and that your teaching or other assigned responsibilities are satisfactory.

Currently, graduate students who have at least a 33.4% appointment for a fall or spring term are eligible to receive a full tuition (but not segregated fee) waiver.

Although serving as a teaching assistant is not a requirement of the chemistry department at this time, teaching can be an important part of the graduate training you receive. Most students will serve at least two semesters as a teaching assistant, and many will serve for two years. Whether or not an individual student will be appointed as a teaching assistant, research assistant, trainee or fellow depends on the availability of funding from the major professor, and eligibility for traineeships and fellowships from other sources.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the

advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 51 credits

Minimum Residence Credit Requirement 32 credits

Minimum Graduate Coursework Requirement Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Doctoral students are required to take a comprehensive preliminary/oral examination after they have cleared their record of all Incomplete and Progress grades (other than research and thesis). Deposit of the doctoral dissertation in the Graduate School is required.

Language Requirements There are currently no language requirements to obtain the Ph.D. in Chemistry.

Doctoral Minor/Breadth Requirements Doctoral students must complete a doctoral minor.

REQUIRED COURSES

Code	Title	Credits
CHEM 901	Seminar-Teaching of Chemistry	1
CHEM 607	Laboratory Safety	1

Each student must complete CHEM 901 Seminar-Teaching of Chemistry in the fall of their first year, and CHEM 607 Laboratory Safety in the spring of their first year.

The Department of Chemistry recognizes 6 paths to the Ph.D. in Chemistry; each path has specific required courses, called their core courses, and other path-specific requirements.

Analytical Chemistry Track ¹

Code	Title	Credits
CHEM 621	Instrumental Analysis	3-4
CHEM 920	Seminar-Analytical Chemistry	0

Select two of the following:

CHEM 622	Organic Analysis
CHEM 623	Experimental Spectroscopy
CHEM 624	Electrochemistry
CHEM 625	Separations in Chemical Analysis

CHEM/GENETICS 626	Genomic Science
CHEM/BMOLCHEM 627	Methods and Technologies for Protein Characterization
CHEM 628	Chemical Instrumentation: Design and Control Applications
CHEM 630	Selected Topics in Analytical Chemistry

- Every semester until you reach dissertator status, enroll in and attend CHEM 920 Seminar-Analytical Chemistry
- During the spring semester of the second year, complete the written Thesis Background Oral (TBO) and oral defense.
- During the spring semester of the third year, complete the written Research Proposal (RP) and oral defense.
- By May of the fourth year, complete an oral presentation to your thesis committee.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Chemical Biology Track ¹

Code	Title	Credits
CHEM/BIOCHEM 704	Chemical Biology	2

Select any one of the following for the maximum credits offered:

CHEM 606	Physical Methods for Structure Determination
CHEM 621	Instrumental Analysis
CHEM 622	Organic Analysis
CHEM/BMOLCHEM 627	Methods and Technologies for Protein Characterization
CHEM 630	Selected Topics in Analytical Chemistry
CHEM/BIOCHEM 665	Biophysical Chemistry
CHEM 668	Biophysical Spectroscopy

- Before January 30 of the second year, submit the written Thesis Preliminary Report; before April 30, present the oral defense.
- At the end of the fall semester of the third year, complete the written Research Proposal; in the first two weeks of January, do the oral defense.
- In May of the fourth year, complete an oral presentation to the thesis committee.

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Inorganic Chemistry Track ¹

Code	Title	Credits
CHEM 608	Symmetry, Bonding, and Molecular Shapes	1-3

CHEM 713	Inorganic and Organometallic Chemistry of the Main Group Elements	1-3
CHEM 900	Seminar-Inorganic Chemistry	0
Fulfill the minor requirements and at least 2 of the following:		
CHEM 606	Physical Methods for Structure Determination	
CHEM 613	Chemical Crystallography	
CHEM 630	Selected Topics in Analytical Chemistry (Chemistry of Inorganic Materials)	
CHEM 714	Organometallic Chemistry of the Transition Elements	
CHEM 801	Selected Topics in Inorganic Chemistry	

- Every semester until you reach dissertator status, enroll in and attend CHEM 900 Seminar-Inorganic Chemistry
- By January 31 of the second year, complete the written Thesis Background Exam (TBE); complete the oral defense by the end of the spring semester.
- By January 31 of the third year, complete the written Research Proposal (RP); complete the oral defense by the end of the spring semester.
- During spring of the fourth year, complete an oral presentation at the weekly seminar series.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Materials Chemistry Track ¹

Code	Title	Credits
Select three of the following:		
CHEM 613	Chemical Crystallography	3
CHEM 624	Electrochemistry	2-3
CHEM 630	Selected Topics in Analytical Chemistry	1-3
CHEM 652	Chemistry of Inorganic Materials	3
CHEM 653	Chemistry of Nanoscale Materials	3
CHEM 654	Materials Chemistry of Polymers	2-3
CHEM 664	Physical Chemistry of Macromolecules	2-3
CHEM 842	Advanced Organic Chemistry	1-3

- Every semester until you reach dissertator status, enroll in and attend Materials seminars
- During the Spring semester of the second year, complete the written Thesis Preliminary Exam and the oral defense.
- During the Spring semester of the third year, complete the written Research Proposal and the oral defense.
- About 1 year before you are planning on completing the PhD, schedule a thesis planning meeting with your committee.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do

not appear in the Graduate School admissions application, and they will not appear on the transcript.

Organic Chemistry Track ¹

Code	Title	Credits
CHEM 641	Advanced Organic Chemistry	3
CHEM 841	Advanced Organic Chemistry	3
CHEM 940	Seminar-Organic Chemistry	0

Recommended courses, which may be taken as part of the minor:

Code	Title	Credits
CHEM 843	Advanced Organic Chemistry	1-3
CHEM 605	Spectrochemical Measurements	3
CHEM 636	Topics in Chemical Instrumentation: Introduction to NMR	2

- Every semester until you reach dissertator status, enroll in and attend CHEM 940 Seminar-Organic Chemistry
- By January 31 of the second year, complete the written Thesis Background Oral (TBO); complete the oral defense by April 30.
- Complete the written Research Proposal (RP) by mid-December; complete the oral defense by mid-January.
- By May of the fourth year, complete an oral presentation to the thesis committee.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Physical Chemistry Track ¹

Code	Title	Credits
CHEM 661	Chemical and Statistical Thermodynamics	3
CHEM 675	Introductory Quantum Chemistry	3
CHEM 960	Seminar-Physical Chemistry	2

Complete at least 2 credits from the following:

CHEM 654	Materials Chemistry of Polymers	
CHEM 664	Physical Chemistry of Macromolecules	
CHEM/ BIOCHEM 665	Biophysical Chemistry	
CHEM 668	Biophysical Spectroscopy	
CHEM 762	Molecular Reaction Dynamics	
CHEM 763	Introduction to Molecular Spectroscopy	
CHEM 775	Electronic Structure of Molecules	
CHEM 777	Physical Chemistry of Surfaces	
CHEM 860	Selected Topics in Physical Chemistry	
CHEM 864	Statistical Mechanics	
CHEM/ BIOCHEM 872	Selected Topics in Macromolecular and Biophysical Chemistry	

- Every semester until you reach dissertator status, enroll in and attend CHEM 960 Seminar-Physical Chemistry

- During the Spring semester of the second year, complete the written Thesis Background Oral (TBO) and the oral defense.
- During the Spring semester of the third year, complete the written Research Proposal and oral defense.
- By May of the fourth year, complete an oral presentation to the thesis committee.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<http://chem.wisc.edu/content/graduate>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 12 credits of graduate coursework from other institutions. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

Up to 7 credits numbered 300 or above from a UW–Madison undergraduate career are allowed to count toward the minimum graduate degree credit requirement; if those 7 credits are numbered 700 or above from a UW–Madison undergraduate career, they are allowed to count toward the minimum graduate coursework requirement. **All credits so counted** must be over and above the minimum credits that were required by the original undergraduate degree. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison University Special

With program approval, students are allowed to count no more than 15 credits of coursework numbered 300 or above taken as a UW–Madison special student toward the residence and degree credit requirements; if those 15 credits of coursework taken as a UW–Madison Special student are numbered 700 or above, they are allowed to count toward the minimum graduate coursework requirement. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies. An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor.

To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

OTHER

All admitted Ph.D. graduate students receive tuition remission and a stipend, guaranteed for 10 semesters, as long as progress to the degree is made.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Articulates research problems, potentials, and limits with respect to theory, knowledge, and practice within an area of chemistry.
2. Formulates ideas, concepts, designs, and techniques beyond the current boundaries of knowledge within an area of chemistry.

3. Creates research and scholarship that makes a substantive contribution to an area of chemistry.
4. Demonstrates breadth within their learning experiences.
5. Advances the beneficial societal impacts of research in chemistry.
6. Communicates complex scientific ideas in a clear and understandable manner.
7. Fosters safe, ethical, and professional conduct.

PEOPLE

PROFESSORS

Berry, John
 Blackwell, Helen
 Brunold, Thomas
 Burke, Steven
 Burstyn, Judith (Chair)
 Cavagnero, Silvia
 Choi, Kyoung-Shin
 Coon, Joshua
 Cui, Qiang
 Ediger, Mark
 Gellman, Samuel
 Hamers, Robert
 Hermans, Ivo
 Jin, Song
 Landis, Clark
 McMahan, Robert
 Moore, John
 Nathanson, Gilbert
 Record, Thomas
 Schwartz, David
 Shakhshiri, Bassam
 Sibert, Edwin (Associate Chair)
 Smith, Lloyd
 Stahl, Shannon
 Weisshaar, James
 Woods, Claude
 Wright, John
 Yethiraj, Arun
 Yoon, Tehshik
 Zanni, Martin

ASSOCIATE PROFESSORS

Bertram, Timothy
 Fredrickson, Daniel
 Schmidt, Jordan
 Schomaker, Jennifer

ASSISTANT PROFESSORS

Buller, Andrew
 Garand, Etienne
 Goldsmith, Randall
 Wickens, Zachary

AFFILIATE PROFESSORS

Abbott, Nicholas (Professor of Chemical and Biological Engineering)

Forest, Katrina (Professor of Bacteriology)
 Ge, Ying (Associate Professor of Cell and Regenerative Biology)
 Gilbert, Pupa (Professor of Physics)
 Golden, Jennifer (Assistant Professor of Pharmacy)
 Gopalan, Padma (Professor of Materials Science and Engineering)
 Jackson, Catherine (Assistant Professor of History of Science)
 Kuech, Thomas (Professor of Chemical and Biological Engineering)
 Li, Lingjun (Professor of Pharmacy)
 Lynn, David (Professor of Chemical and Biological Engineering)
 Mecozzi, Sandro (Associate Professor of Pharmacy)
 Middlecamp, Catherine (Professor, Nelson Institute for Environmental Studies)
 Pedersen, Joel (Professor of Soil Science)
 Tang, Weiping (Associate Professor of Pharmacy)
 Weibel, Douglas (Professor of Biochemistry)
 Yu, Lian (Professor of Pharmacy)

CHEMISTRY ELECTRONICS SHOP

Goebel, William (Electronics Technician)

CHEMISTRY MACHINE SHOP

Martin, Mathew (Instrument Maker - Advanced)
 Mullarkey, James (Instrument Maker - Advanced)
 Myers, Steven (Machine Shop Supervisor)
 Schneider, Kendall (Instrument Maker - Advanced)

PAUL BENDER CHEMISTRY INSTRUMENTATION CENTER (CIC)

Fry, Charles (Director of the NMR Laboratory)
 Guzei, Ilia (Director of the X-Ray Laboratory)
 Hofstetter, Heike (Assistant Director of the NMR Laboratory)
 Shanks, Robert (Senior Instrument Technologist)
 Vestling, Martha (Director of the Mass Spectrometry Laboratory)
 Zhu, Lingchao (Instrument Technologist)

RESEARCH SUPPORT STAFF

Bates, Desiree (Computational Chemistry Leader)
 Drier, Tracy (Master Glassblower)
 McGuire, Paul (High Performance Computing Systems Administrator)
 Silver, Alan (Computer Systems Administrator)

CHICANA/O AND LATINA/O STUDIES

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Chicana/o and Latina/o Studies, Doctoral Minor (p. 250)

PEOPLE

Faculty: See Faculty (<http://www.chicla.wisc.edu/faculty>) on the program website.

CHICANA/O AND LATINA/O STUDIES, DOCTORAL MINOR

In 2007, the University of Wisconsin–Madison Graduate School approved the Chicana/o/Latina/o doctoral minor. It became the first such program to be offered in this field at the UW–Madison as well as the University of Wisconsin System. The Chicana/o and Latina/o Studies minor program offers a comparative and transnational approach to the study of Mexican- and Latin-American-origin communities in the United States, including the Commonwealth of Puerto Rico. The curriculum offers students the opportunity to study issues of race, ethnicity, class, gender, and sexuality from both historical and contemporary perspectives. The interdisciplinary program is designed to provide students with an extensive knowledge base and the intellectual tools to understand the unity and diversity of U.S. Latina/o populations. The primary objective of the program is to offer students a multidisciplinary, broad-based perspective on the study of Chicana/os and Latina/os, as well as to introduce them to the central questions, topics, and applications within this field of inquiry. Chicana/o and Latina/o studies maintains a central focus on U.S. Chicana/o and Latina/o populations, offering a variety of courses, some focusing on particular national-origin groups or specific academic disciplines, and others organized comparatively and across disciplinary boundaries.

REQUIREMENTS

Graduate students interested in a minor in Chicana/o and Latina/o studies are required to take a minimum of 12 credits of graduate-level coursework (numbered 300 and above) that has been reviewed and approved for its relevance to the CLS program. A list of current CLS courses can be found here (<http://guide.wisc.edu/courses/chicla>). In addition to these courses, CLS faculty members offer courses in their home departments which may count toward the minor.

These courses have a specific emphasis on Chicana/o and Latina/o issues or have a central focus on comparative cultures with which Chicana/o and Latina/o issues are emphasized. Graduate students are expected to complete graduate-level work (e.g., research and/or scholarly papers and classroom presentations) and meet with faculty to supplement their graduate learning experience. Because many courses taught by faculty across the campus can fulfill these criteria, the program has been designed to be flexible enough to accommodate students' primary fields of study and interests. Each student's focus will be determined in consultation between the student, the CLS faculty mentor, and the CLS director.

PEOPLE

Faculty: See Faculty (<http://www.chicla.wisc.edu/faculty>) on the program website.

CIVIL AND ENVIRONMENTAL ENGINEERING

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Civil and Environmental Engineering, Doctoral Minor (p. 251)
- Civil and Environmental Engineering, M.Eng. (p. 251)
- Civil and Environmental Engineering, M.S. (p. 256)
- Civil and Environmental Engineering, Ph.D. (p. 280)
- Geological Engineering, Doctoral Minor (p. 283)
- Geological Engineering, M.S. (p. 284)
- Geological Engineering, Ph.D. (p. 286)

PEOPLE

Civil and Environmental Engineering Faculty: Professors Noyce (chair), Adams, Bahia, Cramer, Feigl, Hanna, Harrington, Holloway, Hurley, Karthikeyan, Lee, Likos, Long, McMahon, Noguera, Park, Parra-Montesinos (director), Pedersen, Potter, Ran, Russell, Schauer, Wu; Associate Professors Ahn, Fratta, Hurley, Loheide, Pincheira, Tinjum; Assistant Professors Block, Gadikota, Ginder-Vogel, Hedegaard, Hicks, Prabhakar, Remucal, Sone, Wang, Wright. See also CEE faculty (<http://directory.engr.wisc.edu/cee/faculty>).

Geological Engineering Faculty: Professors Likos (director) (Civil and Environmental Engineering), Anderson (Geoscience), Bahr (Geoscience), Feigl (Geoscience), Goodwin (Geoscience), Holloway (Nelson Institute), Thurber (Geoscience), Tikoff (Geoscience), Tobin (Geoscience), Wang (Geoscience), Wu (Civil and Environmental Engineering); Associate Professors Fratta (Civil and Environmental Engineering), Loheide (Civil and Environmental Engineering), Tinjum (Engineering Professional Development); Assistant Professors Cardiff (Geoscience), Ginder-Vogel (Civil and Environmental Engineering), Hicks (Civil and Environmental Engineering), Sone (Civil and Environmental Engineering), Zoet (Geoscience); Affiliate Professors Kung (Soil Science), Lowery (Soil Science), Plesha (Engineering Physics), Potter (Civil and Environmental Engineering). See also GLE faculty (<https://www.engr.wisc.edu/geological-engineering/people>).

Environmental Chemistry and Technology: Professors Hurley (director) (Civil and Environmental Engineering), Bertram (Chemistry), Bleam (Soil Science), Ginder-Vogel (Civil and Environmental Engineering), Gadikota (Civil and Environmental Engineering), Harrington (Civil and Environmental Engineering), Karthikeyan (Biological Systems Engineering), McMahon (Civil and Environmental Engineering/Bacteriology), Pedersen (Soil Science), Remucal (Civil and Environmental Engineering), Roden (Geoscience), Root (Chemical and Biological Engineering), Schauer (Civil and Environmental Engineering), Thompson (Biological Systems Engineering). See also ECT Faculty (<https://www.engr.wisc.edu/academics/graduate-academics/environmental-chemistry-technology>).

CIVIL AND ENVIRONMENTAL ENGINEERING, DOCTORAL MINOR

Students from departments outside of Civil and Environmental Engineering can receive a doctoral minor in civil and environmental engineering. The minor must be approved by the Department of Civil and Environmental Engineering. The minor approval form is available at the department office. The completed form must be returned to the department office for review and approval.

REQUIREMENTS

1. A minimum of 9 formal course credits (not independent study or research credits) taken in Civil and Environmental Engineering (http://guide.wisc.edu/courses/civ_engr).
2. Courses must be numbered 300 or above in Civil and Environmental Engineering.
3. Two of the courses must be numbered 500 or above in Civil and Environmental Engineering.
4. Only one of the courses may be cross listed in the student's major department and cannot be used to satisfy the student's major requirements.
5. No examinations are required other than those given in each course.

PEOPLE

Civil and Environmental Engineering Faculty: Professors Noyce (chair), Adams, Bahia, Cramer, Feigl, Hanna, Harrington, Holloway, Hurley, Karthikeyan, Lee, Likos, Long, McMahon, Noguera, Park, Parra-Montesinos (director), Pedersen, Potter, Ran, Russell, Schauer, Wu; Associate Professors Ahn, Fratta, Hurley, Loheide, Pincheira, Tinjum; Assistant Professors Block, Gadikota, Ginder-Vogel, Hedegaard, Hicks, Prabhakar, Remucal, Sone, Wang, Wright. See also CEE faculty (<http://directory.engr.wisc.edu/cee/faculty>).

Geological Engineering Faculty: Professors Likos (director) (Civil and Environmental Engineering), Anderson (Geoscience), Bahr (Geoscience), Feigl (Geoscience), Goodwin (Geoscience), Holloway (Nelson Institute), Thurber (Geoscience), Tikoff (Geoscience), Tobin (Geoscience), Wang (Geoscience), Wu (Civil and Environmental Engineering); Associate Professors Fratta (Civil and Environmental Engineering), Loheide (Civil and Environmental Engineering), Tinjum (Engineering Professional Development); Assistant Professors Cardiff (Geoscience), Ginder-Vogel (Civil and Environmental Engineering), Hicks (Civil and Environmental Engineering), Sone (Civil and Environmental Engineering), Zoet (Geoscience); Affiliate Professors Kung (Soil Science), Lowery (Soil Science), Plesha (Engineering Physics), Potter (Civil and Environmental Engineering). See also GLE faculty (<https://www.engr.wisc.edu/geological-engineering/people>).

Environmental Chemistry and Technology: Professors Hurley (director) (Civil and Environmental Engineering), Bertram (Chemistry), Bleam (Soil Science), Ginder-Vogel (Civil and Environmental Engineering), Gadikota (Civil and Environmental Engineering), Harrington (Civil and Environmental Engineering), Karthikeyan (Biological Systems Engineering), McMahon (Civil and Environmental Engineering/

Bacteriology), Pedersen (Soil Science), Remucal (Civil and Environmental Engineering), Roden (Geoscience), Root (Chemical and Biological Engineering), Schauer (Civil and Environmental Engineering), Thompson (Biological Systems Engineering). See also ECT Faculty (<https://www.engr.wisc.edu/academics/graduate-academics/environmental-chemistry-technology>).

CIVIL AND ENVIRONMENTAL ENGINEERING, M.ENG.

Students interested in the Civil and Environmental Engineering M.Eng. degree should see information on its named option in Environmental Engineering (p. 253).

ADMISSIONS

Students interested in the Civil and Environmental Engineering M.Eng. should see admissions information for the named option in Environmental Engineering (p. 253).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

No financial support from the university is available to students in the online Civil and Environmental M.Eng. at this time.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

Note: The major is currently non-admitting. Students are admitted through the named option (sub-major) below (p. 252).

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
No	No	Yes	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement	30 credits
Minimum Residence Credit Requirement	16 credits
Minimum Graduate Coursework Requirement	At least 50% of credits applied toward the graduate degree credit requirement must be completed in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.
Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.
Assessments and Examinations	Contact the program for information on required assessments and examinations.
Language Requirements	Contact the program for information on any language requirements.

REQUIRED COURSES

See coursework requirements for the named option in Environmental Engineering (p. 254).

NAMED OPTIONS (SUB-MAJORS)

A named option is a formally documented sub-major within an academic major program. Named options appear on the transcript with degree conferral. Students pursuing the Master of Engineering in Civil and Environmental Engineering must select the named option:

- Civil and Environmental Engineering; Environmental Engineering, M.Eng. (p. 253)

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://www.engr.wisc.edu/app/uploads/2016/02/cee-graduate-student-handbook.pdf>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count credits of graduate coursework from other institutions. Approved credits will be allowed to count toward the minimum graduate degree credit requirement and the minimum graduate coursework requirement, but will not count toward the minimum graduate residence credit requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

With program approval, no more than 7 credits of coursework numbered 300 or higher from a UW–Madison undergraduate degree are allowed to count only toward the minimum graduate degree credit requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison University Special

With program approval, students are allowed to count up to 15 credits of coursework numbered 300 or above taken as a UW–Madison special student toward the Minimum Graduate Residence Credit Requirement, and the Minimum Graduate Degree Credit Requirement; those courses numbered 700 or above may be applied toward the Minimum Graduate Coursework (50%) Requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Faculty will contact successful applicants directly regarding funding opportunities. Admission is not a guarantee of funding.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Demonstrate a strong understanding of mathematical, scientific, and engineering principles in the field.
2. Demonstrate an ability to formulate, analyze, and solve advanced engineering problems.
3. Demonstrate creative, independent problem solving skills.
4. Apply the latest scientific and technological advancements, advanced techniques, and modern engineering tools to these problems.
5. Fosters ethical and professional conduct.

PEOPLE

Civil and Environmental Engineering Faculty: Professors Noyce (chair), Adams, Bahia, Cramer, Feigl, Hanna, Harrington, Holloway, Hurley, Karthikeyan, Lee, Likos, Long, McMahon, Noguera, Park, Parra-Montesinos (director), Pedersen, Potter, Ran, Russell, Schauer, Wu; Associate Professors Ahn, Fratta, Hurley, Loheide, Pincheira, Tinjum; Assistant Professors Block, Gadikota, Ginder-Vogel, Hedegaard, Hicks, Prabhakar, Remucal, Sone, Wang, Wright. See also CEE faculty (<http://directory.engr.wisc.edu/cee/faculty>).

Geological Engineering Faculty: Professors Likos (director) (Civil and Environmental Engineering), Anderson (Geoscience), Bahr (Geoscience),

Feigl (Geoscience), Goodwin (Geoscience), Holloway (Nelson Institute), Thurber (Geoscience), Tikoff (Geoscience), Tobin (Geoscience), Wang (Geoscience), Wu (Civil and Environmental Engineering); Associate Professors Fratta (Civil and Environmental Engineering), Loheide (Civil and Environmental Engineering), Tinjum (Engineering Professional Development); Assistant Professors Cardiff (Geoscience), Ginder-Vogel (Civil and Environmental Engineering), Hicks (Civil and Environmental Engineering), Sone (Civil and Environmental Engineering), Zoet (Geoscience); Affiliate Professors Kung (Soil Science), Lowery (Soil Science), Plesha (Engineering Physics), Potter (Civil and Environmental Engineering). See also GLE faculty (<https://www.engr.wisc.edu/geological-engineering/people>).

Environmental Chemistry and Technology: Professors Hurley (director) (Civil and Environmental Engineering), Bertram (Chemistry), Blead (Soil Science), Ginder-Vogel (Civil and Environmental Engineering), Gadikota (Civil and Environmental Engineering), Harrington (Civil and Environmental Engineering), Karthikeyan (Biological Systems Engineering), McMahon (Civil and Environmental Engineering/Bacteriology), Pedersen (Soil Science), Remucal (Civil and Environmental Engineering), Roden (Geoscience), Root (Chemical and Biological Engineering), Schauer (Civil and Environmental Engineering), Thompson (Biological Systems Engineering). See also ECT Faculty (<https://www.engr.wisc.edu/academics/graduate-academics/environmental-chemistry-technology>).

CIVIL AND ENVIRONMENTAL ENGINEERING: ENVIRONMENTAL ENGINEERING, M.ENG.

This is a named option in the Civil and Environmental Engineering M.Eng (p. 251).

The M.Eng. named option in Environmental Engineering is a fully online degree that includes a full curriculum of courses incorporating the latest research and practices in water supply, wastewater reclamation and reuse, resource recovery, and urban storm water management. The M.Eng. degree has been developed to give the practicing environmental engineer and scientist the skills needed to meet contemporary and future challenges. For more information about the online M.Eng. degree, see the program website (<https://www.engr.wisc.edu/department/civil-environmental-engineering/academics/master-engineering-civil-environmental-engineering-2>).

ADMISSIONS

All applicants must meet the Graduate School's admission requirements (<http://grad.wisc.edu/admissions/requirements>) to be considered for admission. In addition, applicants must also meet the department's more stringent admission requirements listed below to be considered for admission:

- Grades: A minimum undergraduate grade point average (GPA) of 3.00 (on a 4.00 scale) on the equivalent of the last 60 semester hours (approximately two years of work) is required for domestic applicants. A strong academic performance comparable to an average of B or above grades for all undergraduate course work is required for international applicants.

- On a case by case basis the admissions committee may consider an applicant with a GPA lower than 3.0 for applicants with exceptional circumstances, if supported by a strong career track and references.
- Degree: A bachelor's degree from an ABET-accredited engineering program or from a recognized international institution is required.
 - On a case by case basis the admissions committee may consider an applicant with a non ABET-accredited B.S. degree depending on the applicant's academic record.

A complete graduate application is required before an application will be reviewed by the faculty. A complete graduate application contains the following:

- *Graduate School Application Form and application fee:* Applicants must submit an online application to the UW–Madison Graduate School. See Graduate School Admissions (<http://grad.wisc.edu/admissions/requirements>) to apply.
- *Statement of purpose:* A statement of purpose for graduate study must be submitted through an applicant's online UW–Madison Graduate School application. Please limit this important document to 1,000 words.
- *Letters of recommendation:* Three letters of recommendation must be submitted through an applicant's online UW–Madison Graduate School application.
- *Transcripts:* One official transcript from each institution you have attended must be sent to the department directly. International academic records must be in the original language accompanied by an official English translation. Documents must be issued by the institution with the official seal/stamp and an official signature.
- *Graduate Record Examination (GRE) Scores:* Graduate Record Examination (GRE) General Test scores are required for all applicants.
- *English proficiency scores:* Applicants whose native language is not English, or whose undergraduate instruction was not in English, must provide an English proficiency test score. Scores are accepted if they are within two years of the start of the admission term. See Graduate School Admission Requirements (<http://grad.wisc.edu/admissions/requirements>) for more information on the English proficiency requirement.

Students interested in pursuing the online M.Eng. degree must follow the steps to apply found on the program website (<https://epd.wisc.edu/online-degree/environmental-engineering/#/apply>).

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

No financial support from the university is available to students in the online Civil and Environmental M.Eng. at this time.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
No	No	Yes	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement At least 50% of credits applied toward the graduate degree credit requirement must be completed in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Contact the program for information on required assessments and examinations.

Language Requirements Contact the program for information on any language requirements.

REQUIRED COURSES

Code	Title	Credits
Core Courses		
CIV ENGR 820	Hydraulics and Applied Fluid Mechanics for Environmental Engineers	3
CIV ENGR 722	Chemical Principles of Environmental Engineering	3
CIV ENGR 723	Energy Principles of Environmental Engineering	3
CIV ENGR 721	Biological Principles of Environmental Engineering	3
CIV ENGR 821	Environmental Engineering: Biological Treatment Processes	3-4
CIV ENGR 822	Environmental Engineering: Physical/Chemical Treatment Process	3-4
CIV ENGR 929	Seminar-Environmental Engineering	1
Master's Level Capstone Design Project		
Electives		
CIV ENGR 428	Water Treatment Plant Design	3
CIV ENGR 426	Design of Wastewater Treatment Plants	3
CIV ENGR 427	Solid and Hazardous Wastes Engineering	3
CIV ENGR 522	Hazardous Waste Management	3
CIV ENGR 999	Advanced Independent Study	1-9

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

NAMED OPTION-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://www.engr.wisc.edu/app/uploads/2016/02/cee-graduate-student-handbook.pdf>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 6 credits of graduate coursework from other institutions. Approved credits will be allowed to count toward the minimum graduate degree credit requirement and the minimum graduate coursework requirement, but will not count toward the minimum graduate residence credit requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW-Madison Undergraduate

With program approval, no more than 7 credits of coursework numbered 300 or higher from a UW-Madison undergraduate degree are allowed to count only toward the minimum graduate degree credit requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW-Madison University Special

With program approval students are allowed to count no more than 9 credits of coursework numbered 300 or above taken as a UW-Madison special student. Coursework earned five or more year prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Faculty will contact successful applicants directly regarding funding opportunities. Admission is not a guarantee of funding.

PROFESSIONAL DEVELOPMENT**GRADUATE SCHOOL RESOURCES**

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PEOPLE

Civil and Environmental Engineering Faculty: Professors Noyce (chair), Adams, Bahia, Cramer, Feigl, Hanna, Harrington, Holloway, Hurley, Karthikeyan, Lee, Likos, Long, McMahon, Noguera, Park, Parra-Montesinos (director), Pedersen, Potter, Ran, Russell, Schauer, Wu; Associate Professors Ahn, Fratta, Hurley, Loheide, Pincheira, Tinjum; Assistant Professors Block, Gadikota, Ginder-Vogel, Hedegaard, Hicks, Prabhakar, Remucal, Sone, Wang, Wright. See also CEE faculty (<http://directory.engr.wisc.edu/cee/faculty>).

Geological Engineering Faculty: Professors Likos (director) (Civil and Environmental Engineering), Anderson (Geoscience), Bahr (Geoscience), Feigl (Geoscience), Goodwin (Geoscience), Holloway (Nelson Institute), Thurber (Geoscience), Tikoff (Geoscience), Tobin (Geoscience), Wang (Geoscience), Wu (Civil and Environmental Engineering); Associate Professors Fratta (Civil and Environmental Engineering), Loheide (Civil and Environmental Engineering), Tinjum (Engineering Professional Development); Assistant Professors Cardiff (Geoscience), Ginder-Vogel (Civil and Environmental Engineering), Hicks (Civil and Environmental Engineering), Sone (Civil and Environmental Engineering), Zoet (Geoscience); Affiliate Professors Kung (Soil Science), Lowery (Soil Science), Plesha (Engineering Physics), Potter (Civil and Environmental Engineering). See also GLE faculty (<https://www.engr.wisc.edu/geological-engineering/people>).

Environmental Chemistry and Technology: Professors Hurley (director) (Civil and Environmental Engineering), Bertram (Chemistry), Bleam (Soil Science), Ginder-Vogel (Civil and Environmental Engineering), Gadikota (Civil and Environmental Engineering), Harrington (Civil and Environmental Engineering), Karthikeyan (Biological Systems Engineering), McMahon (Civil and Environmental Engineering/Bacteriology), Pedersen (Soil Science), Remucal (Civil and Environmental Engineering), Roden (Geoscience), Root (Chemical and Biological Engineering), Schauer (Civil and Environmental Engineering), Thompson (Biological Systems Engineering). See also ECT Faculty (<https://www.engr.wisc.edu/academics/graduate-academics/environmental-chemistry-technology>).

CIVIL AND ENVIRONMENTAL ENGINEERING, M.S.

The Department of Civil and Environmental Engineering offers an M.S. degree with advanced independent study or thesis research option. The following six accelerated M.S. degrees are also offered:

Civil and Environmental Engineering: Construction Engineering and Management M.S. (p. 262)
 Civil and Environmental Engineering: Environmental Science and Engineering M.S. (p. 265)
 Civil and Environmental Engineering: Geological/Geotechnical Engineering M.S. (p. 268)
 Civil and Environmental Engineering: Structural Engineering M.S. (p. 271)
 Civil and Environmental Engineering: Transportation Engineering M.S. (p. 274)
 Civil and Environmental Engineering: Water Resources M.S. (p. 276)

In addition, an online program in Civil & Environmental Engineering: Environmental Engineering M.Eng. (p. 251) is offered.

The mission of the civil and environmental engineering program is to develop leaders in education, industry, government and entrepreneurship who can use their acquired skills to improve society. The academic program provides a comprehensive framework of courses in the broad area of civil and environmental engineering with opportunities to develop specialized expertise. It also emphasizes the development of integrated teamwork abilities, communication, leadership, and creative research skills. Graduate study in the department offers an opportunity to undertake advanced study and research in various areas of specialization. Areas include:

- *Construction engineering and management:* construction labor productivity management, integrated lean project delivery systems, risk management, advanced computer applications to construction, and change management.
- *Environmental engineering:* water supply, water quality, water treatment, wastewater treatment, solid and hazardous waste management, air pollution, biotechnology, and alternative energy
- *Geo and pavement engineering:* geotechnical, geological and geoenvironmental engineering, pavement materials and design, asphalt binders and mixtures, geosynthetics, in-situ testing and engineering geophysics, recycled materials in sustainable construction
- *Structural engineering:* behavior, analysis and design of reinforced/prestressed concrete, steel, and wood structures; design for earthquake and wind loading; seismic rehabilitation
- *Transportation engineering:* highway and traffic engineering, intelligent transportation systems, transportation planning, freight, and infrastructure management, transportation safety, user comprehension and behavior, advanced driving- and micro-simulation
- *Water resources/environmental fluid mechanics:* analysis, measurement, modeling of currents, flows, and waves in natural and constructed systems; surface and groundwater hydrology; hydraulic engineering; coastal engineering; sedimentation and transport processes; infrastructure impacts of extreme weather events, hydroecology and stream restoration

Students may also pursue studies in the broad fields of environmental engineering/science and systems analysis. Areas of specialization are organized into a constructed facilities division (including transportation engineering, structural engineering, construction engineering and management, pavement engineering, materials for constructed facilities, and geotechnical engineering) and an environmental engineering division (including geoenvironmental engineering, environmental fluid mechanics and water resources engineering, environmental science and technology, and environmental and water chemistry).

Degrees require a coordinated core program of courses, selected from CEE and other department/program offerings. Graduate degree programs closely associated with the department include engineering mechanics, human factors, environmental chemistry and technology, water resources management, geological engineering, land resources, and limnology and marine science.

In support of the instructional and research programs are laboratory facilities for structural engineering; highway materials; transportation systems; driving simulation and human factors; soil mechanics, geotechnical and geoenvironmental engineering; coastal and hydraulic engineering; environmental fluid mechanics; environmental engineering processes and engineering chemistry. Water resources engineering, environmental engineering, and water chemistry have additional research facilities in the Water Science and Engineering Laboratory on the shore of Lake Mendota. The Environmental Engineering Field Laboratory is located at the Nine-Springs Madison Metropolitan Wastewater Treatment Plant.

ADMISSIONS

All applicants must meet the Graduate School's admission requirements (<http://grad.wisc.edu/admissions/requirements>) to be considered for admission. In addition, applicants must also meet the department's more stringent admission requirements listed below to be considered for admission:

- **Grades:** A minimum undergraduate grade point average (GPA) of 3.00 (on a 4.00 scale) on the equivalent of the last 60 semester hours (approximately two years of work) is required for domestic applicants. A strong academic performance comparable to an average of B or above grades for all undergraduate course work is required for international applicants.
- **Degree:** A bachelor's degree from an ABET-accredited engineering program or from a recognized international institution is required. Applicants who do not have a bachelor's degree as specified above may study for the master of science in civil and environmental engineering (Program Option C); however, to become eligible for this program, applicants must meet the department's deficiency requirements, some of which may be completed as deficiencies after admission. As a general rule, students with more than 12 credits in deficiencies are not admitted to the graduate program. Rather, they are encouraged to enroll as special students until most of their deficiencies are satisfied. All plans of study within this option must be approved by the department faculty. The deficiency requirements for applicants without a bachelor's degree from an ABET-accredited engineering program or from a recognized international institution must be obtained from the department.

A complete graduate application is required before an application will be reviewed by the faculty. A complete graduate application contains the following:

- **Graduate School Application Form and application fee:** Applicants must submit an online application to the UW–Madison Graduate School. See Graduate School Admissions (<https://grad.wisc.edu/admissions>) to apply.
- **Statement of purpose:** A statement of purpose for graduate study must be submitted through an applicant's online UW–Madison Graduate School application. Please limit this important document to 1,000 words.

- **Letters of recommendation:** Three letters of recommendation must be submitted through an applicant's online UW–Madison Graduate School application.
- **Transcripts:** Upload the most recent copies of your transcripts to the electronic application, from each institution attended. Study abroad transcripts are not required if coursework is reflected on the degree granting university's transcript. If the application is recommended for admission then we will follow-up with instructions for official transcript submission.
- **Graduate Record Examination (GRE) Scores:** Graduate Record Examination (GRE) General Test scores are required for all applicants.
- **English proficiency scores:** Applicants whose native language is not English, or whose undergraduate instruction was not in English, must provide an English proficiency test score. Scores are accepted if they are within two years of the start of the admission term. See Graduate School Admission Requirements (<http://grad.wisc.edu/admissions/requirements>) for more information on the English proficiency requirement.

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Financial support is available through fellowships, project/program assistantships (PA), research assistantships (RA), and teaching assistantships (TA). Faculty will contact successful M.S./Ph.D. applicants directly regarding funding opportunities. Admission is not a guarantee of funding.

Students in the accelerated M.S. named options and M.Eng. (named option in Environmental Engineering) online programs are not eligible for department funded opportunities.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses

and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules.

Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum 30 credits

Credit Requirement

Minimum 16 credits

Residence Credit Requirement

Minimum Graduate Coursework Requirement At least 50% of credits applied toward the graduate degree credit requirement must be completed in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.

Overall 3.00 GPA required.

Graduate GPA Requirement

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Contact the program for information on required assessments and examinations.

Language Requirements Contact the program for information on any language requirements.

REQUIRED COURSES

Option A—Thesis Option ¹

Students who wish to do advanced work and research in a well-defined area of specialization are encouraged to pursue this program.

This option requires requires a minimum of 30 credits of graduate work including:

- A minimum of 18 credits graduate-level coursework (300-level and higher); at least of 9 of the 18 credits must be in Civil and Environmental Engineering (may include the seminar course with approval from the faculty advisor; may not include CIV ENGR 790) Some 300-level courses may require special faculty approval.

- A minimum of one-credit seminar course (Discuss seminar options with faculty advisor.)
- A minimum of 6 credits of CIV ENGR 790 Master's Research or Thesis A faculty committee will conduct a final examination on the thesis research.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Option B—Advanced Independent Study Option ¹

This option requires requires a minimum of 30 credits of graduate work including:

- A minimum of 21 credits graduate-level coursework (300 level and higher); at least of 9 of the 21 credits must be in Civil and Environmental Engineering (may include the seminar course with approval from the advisor; may not include independent study or research courses) Some 300-level courses may require special faculty approval.
- A minimum of one-credit seminar course. (Discuss seminar options with faculty advisor.)
- A minimum of 3 credits of CIV ENGR 790 Master's Research or Thesis or CIV ENGR 999 Advanced Independent Study A required written report based on the student's advanced independent study project does not have to meet UW-Madison Graduate School requirements for a thesis, but has to show independent thinking by the student. A faculty committee will review and approve the final report. A final examination is not required but may be requested by the faculty committee.

Option C—Master's Option ¹ (for Students without Engineering Bachelor's Degrees)

This program is designed for students without engineering bachelor's degrees. Students will meet with their faculty advisor to determine the courses and total credits required to fulfill the deficiency requirements. As a general rule, students with more than 12 credits in deficiencies are not admitted to the program. Rather, they are encouraged to enroll as special students until more of their deficiencies are satisfied. Some of the deficiency course requirements may be completed after admission. The exact number of deficiency courses and credits completed before and after admission will be determined by the faculty advisor. All prerequisite courses must be taken for a letter grade. In addition to the total deficiency credit requirement, Option C requires a minimum of 30 credits of graduate work. Students can select either a Thesis Option or Advanced Independent Study Option, consistent with the requirements of Option A or Option B described above, to complete the non-deficiency requirements of Option C. Students should meet with their faculty advisor to determine which option is most appropriate for their degree plan. Deficiency credits cannot be applied to fulfill the 30 credit degree requirement.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Graduate-level Coursework Options in Civil and Environmental Engineering

Code	Title	Credits
Some 300-level courses may require special faculty approval.		
CIV ENGR 310	Fluid Mechanics	3
CIV ENGR 311	Hydroscience	3
CIV ENGR 320	Environmental Engineering	3
CIV ENGR 322	Environmental Engineering Processes	3
CIV ENGR/G L E 330	Soil Mechanics	4
CIV ENGR 340	Structural Analysis I	4
CIV ENGR 370	Transportation Engineering	3
CIV ENGR/BSE/ SOIL SCI 372	On-Site Waste Water Treatment and Dispersal	2
CIV ENGR/ENVIR ST/ GEOG 377	An Introduction to Geographic Information Systems	4
CIV ENGR 392	Building Information Modeling (BIM)	3
CIV ENGR/E M A 395	Materials for Constructed Facilities	3
CIV ENGR 410	Hydraulic Engineering	3
CIV ENGR 411	Open Channel Hydraulics	3
CIV ENGR 412	Groundwater Hydraulics	3
CIV ENGR 414	Hydrologic Design	3
CIV ENGR 415	Hydrology	3
CIV ENGR 416	Water Resources Systems Analysis	3
CIV ENGR 421	Environmental Sustainability Engineering	3
CIV ENGR 422	Elements of Public Health Engineering	3
CIV ENGR 423	Air Pollution Effects, Measurement and Control	3
CIV ENGR 424	Environmental Engineering Laboratory	2
CIV ENGR 426	Design of Wastewater Treatment Plants	3
CIV ENGR 427	Solid and Hazardous Wastes Engineering	3
CIV ENGR 428	Water Treatment Plant Design	3
CIV ENGR 429	Environmental Systems Optimization	3
CIV ENGR 440	Structural Analysis II	3
CIV ENGR 442	Wood Structures I	3
CIV ENGR/ENVIR ST/ G L E/GEOSCI 444	Practical Applications of GPS Surveying	2
CIV ENGR 445	Steel Structures I	3
CIV ENGR 447	Concrete Structures I	3
CIV ENGR/I SY E/ N E 460	Uncertainty Analysis for Engineers	3
CIV ENGR 489	Honors in Research	1-3
CIV ENGR/BSE 491	Legal Aspects of Engineering	3
CIV ENGR 492	Integrated Project Estimating and Scheduling	3
CIV ENGR 494	Civil and Environmental Engineering Decision Making	3

CIV ENGR 496	Electrical Systems for Construction	3
CIV ENGR 497	Mechanical Systems for Construction	3
CIV ENGR 498	Construction Project Management	3
CIV ENGR 500	Water Chemistry	3
CIV ENGR 501	Water Analysis-Intermediate	3
CIV ENGR 502	Environmental Organic Chemistry	3
CIV ENGR/E M A/ M E 508	Composite Materials	3
CIV ENGR 514	Coastal Engineering	2-3
CIV ENGR 515	Hydroclimatology for Water Resources Management	3
CIV ENGR 522	Hazardous Waste Management	3
CIV ENGR/G L E 530	Seepage and Slopes	3
CIV ENGR/G L E 531	Retaining Structures	3
CIV ENGR/G L E 532	Foundations	3
CIV ENGR 534	Field Methods in Geological Engineering	3
CIV ENGR 543	Precast Concrete	3
CIV ENGR 545	Steel Structures II	3
CIV ENGR 547	Concrete Structures II	3
CIV ENGR/ENVIR ST/ LAND ARC 556	Remote Sensing Digital Image Processing	3
CIV ENGR/ A A E/ENVIR ST/ URB R PL 561	Energy Markets	3
CIV ENGR 570	Environmental Impact of Transportation Systems	3
CIV ENGR 571	Urban Transportation Planning	3
CIV ENGR 573	Geometric Design of Transport Facilities	3
CIV ENGR 574	Traffic Control	3
CIV ENGR 575	Advanced Highway Materials and Construction	3
CIV ENGR 576	Advanced Pavement Design	3
CIV ENGR 578	Senior Capstone Design	4
CIV ENGR 592	Construction Labor Productivity Management	3
CIV ENGR 596	Constructability Analysis	3
CIV ENGR 609	Special Topics in Water Chemistry	1-3
CIV ENGR 618	Special Topics in Hydraulics and Fluid Mechanics	1-3
CIV ENGR 619	Special Topics in Hydrology	1-3
CIV ENGR/ SOIL SCI 623	Microbiology of Waterborne Pathogens and Indicator Organisms	3
CIV ENGR 629	Special Topics in Environmental Engineering	1-3
CIV ENGR/ M&ENVTOX/ SOIL SCI 631	Toxicants in the Environment: Sources, Distribution, Fate, & Effects	3
CIV ENGR/G L E 633	Waste Geotechnics	3
CIV ENGR/G L E 635	Remediation Geotechnics	3
CIV ENGR 639	Special Topics in Geotechnical Engineering	1-4
CIV ENGR 641	Highway Bridges	3

CIV ENGR 649	Special Topics in Structural Engineering	1-3
CIV ENGR 669	Special Topics in Construction Engineering and Management	1-4
CIV ENGR 679	Special Topics in Transportation and City Planning	3
CIV ENGR/ PUB AFFR 694	Management of Civil Infrastructure Systems	3
CIV ENGR 700	Chemistry of Natural Waters	3
CIV ENGR/ ATM OCN 701	The Chemistry of Air Pollution	2
CIV ENGR 702	Graduate Cooperative Education Program	1-2
CIV ENGR 703	Environmental Geochemistry	3
CIV ENGR 704	Environmental Chemical Kinetics	3
CIV ENGR 716	Statistical Modelling of Hydrologic Systems	3
CIV ENGR/ENVIR ST/ URB R PL 719	Water Resources Management Summer Practicum	4
CIV ENGR 721	Biological Principles of Environmental Engineering	3
CIV ENGR 722	Chemical Principles of Environmental Engineering	3
CIV ENGR 723	Energy Principles of Environmental Engineering	3
CIV ENGR/G L E 730	Engineering Properties of Soils	3
CIV ENGR/G L E 731	Properties of Geosynthetics	3
CIV ENGR/G L E 732	Unsaturated Soil Geoengineering	3
CIV ENGR/G L E 733	Physicochemical Basis of Soil Behavior	3
CIV ENGR/G L E 735	Soil Dynamics	3
CIV ENGR 739	Special Topics in Geotechnical Engineering	1-4
CIV ENGR 740		3
CIV ENGR 744	Structural Dynamics and Earthquake Engineering	3
CIV ENGR 749	Special Topics in Structural Engineering	1-4
CIV ENGR/ ENVIR ST 772	Practicum in Transportation Management and Policy	3
CIV ENGR 795	Characterization of Asphalt Binders	3
CIV ENGR 820	Hydraulics and Applied Fluid Mechanics for Environmental Engineers	3
CIV ENGR 821	Environmental Engineering: Biological Treatment Processes	3-4
CIV ENGR 822	Environmental Engineering: Physical/Chemical Treatment Process	3-4
CIV ENGR 823	Environmental Engineering Design Project	3
CIV ENGR/ URB R PL 839	Land Use and Communication Systems Planning	3
CIV ENGR/ ENVIR ST 970	Colloquium in Transportation Management and Policy	1

Code	Title	Credits
Seminar Course Options		
CIV ENGR 579	Seminar-Transportation Engineering	1
CIV ENGR 909	Graduate Seminar - Environmental Chemistry & Technology	1
CIV ENGR/ ATM OCN/BOTANY/ ENVIR ST/GEOSCI/ ZOOLOGY 911	Limnology and Marine Science Seminar	1
CIV ENGR 919	Seminar-Hydraulic Engineering and Fluid Mechanics	1
CIV ENGR 929	Seminar-Environmental Engineering	1
CIV ENGR 939	Geotechnical Engineering Seminar	1
CIV ENGR 949	Seminar-Structural Engineering	1
CIV ENGR/ENVIR ST/ URB R PL 717	Water Resources Management Practicum Planning Seminar I	1
CIV ENGR/ENVIR ST/ URB R PL 718	Water Resources Management Practicum Planning Seminar II	2

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

NAMED OPTIONS (SUB-MAJORS)

A named option is a formally documented sub-major within an academic major program. Named options appear on the transcript with degree conferral.

- Civil and Environmental Engineering: Construction Engineering and Management, M.S. (p. 262)
- Civil and Environmental Engineering: Environmental Science and Engineering, M.S. (p. 265)
- Civil and Environmental Engineering: Geological/Geotechnical Engineering, M.S. (p. 268)
- Civil and Environmental Engineering: Structural Engineering, M.S. (p. 271)
- Civil and Environmental Engineering: Transportation Engineering, M.S. (p. 274)
- Civil and Environmental Engineering: Water Resources Engineering, M.S. (p. 276)

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://www.engr.wisc.edu/app/uploads/2016/02/cee-graduate-student-handbook.pdf>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count credits of graduate coursework from other institutions. Approved credits will be allowed to count toward the minimum graduate degree credit requirement and the minimum graduate coursework requirement, but will not count toward the minimum graduate residence credit requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

With program approval, no more than 7 credits of coursework numbered 300 or higher from a UW–Madison undergraduate degree are allowed to count only toward the minimum graduate degree credit requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison University Special

With program approval, students are allowed to count up to 15 credits of coursework numbered 300 or above taken as a UW–Madison special student toward the Minimum Graduate Residence Credit Requirement, and the Minimum Graduate Degree Credit Requirement; those courses numbered 700 or above may be applied toward the Minimum Graduate Coursework (50%) Requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

An advisor generally serves as the thesis or independent study advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Students in the accelerated M.S. named options are not eligible for department funded opportunities.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Demonstrate a strong understanding of mathematical, scientific, and engineering principles in the field.
2. Demonstrate an ability to formulate, analyze, and solve advanced engineering problems.
3. Apply the latest scientific and technological advancements, advanced techniques, and modern engineering tools to these problems.
4. Recognize and apply principles of ethical and professional conduct.

PEOPLE

Civil and Environmental Engineering Faculty: Professors Noyce (chair), Adams, Bahia, Cramer, Feigl, Hanna, Harrington, Holloway, Hurley, Karthikeyan, Lee, Likos, Long, McMahan, Noguera, Park, Parra-Montesinos (director), Pedersen, Potter, Ran, Russell, Schauer, Wu; Associate Professors Ahn, Fratta, Hurley, Loheide, Pincheira, Tinjum; Assistant Professors Block, Gadikota, Ginder-Vogel, Hedegaard, Hicks, Prabhakar, Remucal, Sone, Wang, Wright. See also CEE faculty (<http://directory.engr.wisc.edu/cee/faculty>).

Geological Engineering Faculty: Professors Likos (director) (Civil and Environmental Engineering), Anderson (Geoscience), Bahr (Geoscience), Feigl (Geoscience), Goodwin (Geoscience), Holloway (Nelson Institute), Thurber (Geoscience), Tikoff (Geoscience), Tobin (Geoscience), Wang (Geoscience), Wu (Civil and Environmental Engineering); Associate Professors Fratta (Civil and Environmental Engineering), Loheide (Civil and Environmental Engineering), Tinjum (Engineering Professional Development); Assistant Professors Cardiff (Geoscience), Ginder-Vogel (Civil and Environmental Engineering), Hicks (Civil and Environmental Engineering), Sone (Civil and Environmental Engineering), Zoet (Geoscience); Affiliate Professors Kung (Soil Science), Lowery (Soil Science), Plesha (Engineering Physics), Potter (Civil and Environmental

Engineering). See also GLE faculty (<https://www.engr.wisc.edu/geological-engineering/people>).

Environmental Chemistry and Technology: Professors Hurley (director) (Civil and Environmental Engineering), Bertram (Chemistry), Bleam (Soil Science), Ginder-Vogel (Civil and Environmental Engineering), Gadikota (Civil and Environmental Engineering), Harrington (Civil and Environmental Engineering), Karthikeyan (Biological Systems Engineering), McMahon (Civil and Environmental Engineering/Bacteriology), Pedersen (Soil Science), Remucal (Civil and Environmental Engineering), Roden (Geoscience), Root (Chemical and Biological Engineering), Schauer (Civil and Environmental Engineering), Thompson (Biological Systems Engineering). See also ECT Faculty (<https://www.engr.wisc.edu/academics/graduate-academics/environmental-chemistry-technology>).

CIVIL AND ENVIRONMENTAL ENGINEERING: CONSTRUCTION ENGINEERING AND MANAGEMENT, M.S.

A master's degree in Construction Engineering and Management (CEM) from the University of Wisconsin–Madison provides you with expertise in the theoretical and practical methods of planning, design, and construction, building on your civil engineering foundation in environmental engineering, transportation, structural analysis, fluid dynamics, and material science.

In just one year of intensive face-to-face learning, you gain an enriched understanding of construction scheduling, cost estimating, construction law, business management, ethics, risk management, safety and quality management, project control, teamwork, leadership, written and oral communications, and continuous improvement. You emerge fully prepared to immerse yourself in construction engineering and management.

Industry partners are strongly engaged in all aspects of the Construction Engineering and Management program, serving as adjunct professors, professors of practice, instructors, strategic advisors, and general supporters. This provides you with a valuable network of contacts during your time on the UW–Madison campus and once you enter the workforce.

Our Construction and Engineering Management graduates are among the top executive performers and leaders in the industry. Leading construction companies consider the UW–Madison Construction and Engineering Management program a top producing school and first choice for future recruiting.

Earn your master's degree through a program created with professional values in mind. As a UW–Madison graduate, you can provide outstanding service and expertise to the construction industry.

ADMISSIONS

Applicants must first meet all of the requirements of the Graduate School. Please visit this website (<https://grad.wisc.edu>) for details.

Applicants must also meet department specific requirements as outlined below:

- Have a bachelor's degree in civil and environmental engineering from an ABET-accredited engineering program or from a recognized international institution
- Submit a 1,000 word or fewer statement of purpose; include your technical areas of interest, coursework emphasis, research experience, professional goals, faculty members you are interested in working with, and any other items relevant to your qualifications for graduate school
- Submit three letters of recommendation
- Non-native English speakers must have a Test of English as a Foreign Language (TOEFL) with a score of 580 (written) or 92 (Internet version)
- The Graduate Record Examination (GRE) is required for admission

Please do not mail paper copies of application materials. Upload the required application materials to the electronic Graduate School application, including a PDF copy of the most current transcripts. Applicants who are recommended for admission by the CEE Admissions Committee, will receive an e-mail with further instructions from the CEE Graduate Admissions Office, requesting official transcripts or other required application material.

Applicants should monitor the application status by visiting the "Graduate Application Status" window within your MyUW portal (information on this is received after submitting an application). You may need to activate a NetID to gain access to the MyUW portal.

Graduate Application Status will remain "pending" until recommendations are determined. All applicants will receive an e-mail from the CEE Graduate Admissions Team with more details once the admission committees have made decisions.

Further questions related to the CEE admissions process may be directed to ceeadmissions@engr.wisc.edu.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Students in this program are not eligible for department funded opportunities in the form of teaching assistantship (TA), research assistantship (RA), or project assistantship (PA).

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	Yes

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement	30 credits
Minimum Residence Credit Requirement	16 credits
Minimum Graduate Coursework Requirement	At least 50% of credits applied toward the graduate degree credit requirement must be completed in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.
Overall Graduate GPA Requirement	3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations	Contact the program for information on required assessments and examinations.
Language Requirements	Contact the program for information on any language requirements.

REQUIRED COURSES

This is a face-to-face, accelerated program:

- 30 credit degree program
- Complete the program in one academic year (fall, spring, summer)
- Courses begin in fall semester only
- Take 15 credits from the approved list of Construction Engineering and Management courses (see below)
- 6 credits from a second discipline within the approved list of Civil and Environmental Engineering (CEE) specialization courses, based on your career interests
- 3 credits from a third discipline within the approved list of CEE specialization courses, based on your career interests
- 5 credits of independent study
- 1 credit in a graduate student seminar

Typical Curriculum in this Program (Student and advisor will select specific courses)

Code	Title	Credits
Fall Semester (12 credits)		
CIV ENGR 492	Integrated Project Estimating and Scheduling	3
CIV ENGR 497	Mechanical Systems for Construction	3
CIV ENGR 498	Construction Project Management	3
CIV ENGR 592	Construction Labor Productivity Management	3
CIV ENGR 669	Special Topics in Construction Engineering and Management (Topic: Field Engineering Workshop-Civ Engr. section)	1-4
CIV ENGR 669	Special Topics in Construction Engineering and Management (Topic: Field Engineering Workshop-Electrical Engr. section)	1-4
CIV ENGR 669	Special Topics in Construction Engineering and Management (Topic: Field Engineering Workshop-Mechanical Engr. section)	1-4
CIV ENGR 669	Special Topics in Construction Engineering and Management (Topic: Architecture Design for Construction)	1-4

Spring Semester (12 credits)

CIV ENGR 492	Integrated Project Estimating and Scheduling	3
CIV ENGR 496	Electrical Systems for Construction	3
CIV ENGR 498	Construction Project Management	3
CIV ENGR 669	Special Topics in Construction Engineering and Management (Topic: Lean Project Delivery Field Engineering Workshop)	1-4
CIV ENGR 669	Special Topics in Construction Engineering and Management (Topic: Leadership Development for Project Managers)	1-4
CIV ENGR 669	Special Topics in Construction Engineering and Management (Topic: Graduate Student Seminar)	1-4
Summer Session (6 credits)		
CIV ENGR 498	Construction Project Management	3
CIV ENGR 669	Special Topics in Construction Engineering and Management (Topic: Independent Study)	1-4
CIV ENGR 669	Special Topics in Construction Engineering and Management (Topic: Advanced Independent Study)	1-4

POLICIES

GRADUATE SCHOOL POLICIES

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NAMED OPTION-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

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PRIOR COURSEWORK

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Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Students in the accelerated MS (named options) are not eligible for department funded opportunities.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PEOPLE

Civil and Environmental Engineering Faculty: Professors Noyce (chair), Adams, Bahia, Cramer, Feigl, Hanna, Harrington, Holloway, Hurley, Karthikeyan, Lee, Likos, Long, McMahon, Noguera, Park, Parra-Montesinos (director), Pedersen, Potter, Ran, Russell, Schauer, Wu; Associate Professors Ahn, Fratta, Hurley, Loheide, Pincheira, Tinjum; Assistant Professors Block, Gadikota, Ginder-Vogel, Hedegaard, Hicks, Prabhakar, Remucal, Sone, Wang, Wright. See also CEE faculty (<http://directory.engr.wisc.edu/cee/faculty>).

Geological Engineering Faculty: Professors Likos (director) (Civil and Environmental Engineering), Anderson (Geoscience), Bahr (Geoscience), Feigl (Geoscience), Goodwin (Geoscience), Holloway (Nelson Institute), Thurber (Geoscience), Tikoff (Geoscience), Tobin (Geoscience), Wang (Geoscience), Wu (Civil and Environmental Engineering); Associate Professors Fratta (Civil and Environmental Engineering), Loheide (Civil and Environmental Engineering), Tinjum (Engineering Professional Development); Assistant Professors Cardiff (Geoscience), Ginder-Vogel (Civil and Environmental Engineering), Hicks (Civil and Environmental Engineering), Sone (Civil and Environmental Engineering), Zoet (Geoscience); Affiliate Professors Kung (Soil Science), Lowery (Soil Science), Plesha (Engineering Physics), Potter (Civil and Environmental Engineering). See also GLE faculty (<https://www.engr.wisc.edu/geological-engineering/people>).

Environmental Chemistry and Technology: Professors Hurley (director) (Civil and Environmental Engineering), Bertram (Chemistry), Blean (Soil Science), Ginder-Vogel (Civil and Environmental Engineering), Gadikota (Civil and Environmental Engineering), Harrington (Civil and Environmental Engineering), Karthikeyan (Biological Systems Engineering), McMahon (Civil and Environmental Engineering/Bacteriology), Pedersen (Soil Science), Remucal (Civil and Environmental Engineering), Roden (Geoscience), Root (Chemical and Biological Engineering), Schauer (Civil and Environmental Engineering), Thompson (Biological Systems Engineering). See also ECT Faculty (<https://www.engr.wisc.edu/academics/graduate-academics/environmental-chemistry-technology>).

CIVIL AND ENVIRONMENTAL ENGINEERING: ENVIRONMENTAL SCIENCE AND ENGINEERING, M.S.

This is a named option within Civil and Environmental Engineering M.S. (p. 256)

The Environmental Science and Engineering master's degree from the Department of Civil and Environmental Engineering (<https://www.engr.wisc.edu/department/civil-environmental-engineering/academics/accelerated-master-science-programs-civil-environmental-engineering>) at the University of Wisconsin–Madison teaches you how to apply science to solve complex environmental problems. Our program is multidisciplinary, so you gain a deeper understanding of chemistry, biology, and systems thinking to better approach your work.

In just one year (fall, spring, and summer), learn to comprehensively address practical problems associated with drinking water and wastewater treatment, air quality, environmental chemistry, sustainable design, energy efficiency, and solid and hazardous waste remediation.

Additionally, the Environmental Science and Engineering master's degree explores the combination of law and practice, so you discover how to develop and enforce environmental policies and regulations that forge the way for a greener future.

At UW–Madison, our graduate research program is dynamic. Engineering and environmental chemistry professors, visiting professors, academic staff members, and a cadre of research graduate and undergraduate students provide context for your studies. We sustain a broad range of research topics, so you can explore environmental chemistry, wastewater treatment, drinking water treatment, freshwater quality, environmental microbiology, bioenergy production, sustainable engineering design, and many more.

With a master's degree in Environmental Science and Engineering, you are at the forefront of rapidly developing and world-changing innovations.

ADMISSIONS

Applicants must first meet all of the requirements of the Graduate School. Please visit this website (<https://grad.wisc.edu>) for details.

Applicants must also meet department specific requirements as outlined below:

- Have a bachelor's degree in civil and environmental engineering from an ABET-accredited engineering program or from a recognized international institution
- Submit a 1,000 word or fewer statement of purpose; include your technical areas of interest, coursework emphasis, research experience, professional goals, faculty members you are interested in working with, and any other items relevant to your qualifications for graduate school
- Submit three letters of recommendation
- Non-native English speakers must have a Test of English as a Foreign Language (TOEFL) with a score of 580 (written) or 92 (Internet version)
- The Graduate Record Examination (GRE) is required for admission

Please do not mail paper copies of application materials. Upload the required application materials to the electronic Graduate School application, including a PDF copy of the most current transcripts. Applicants who are recommended for admission by the CEE Admissions Committee, will receive an e-mail with further instructions from the CEE Graduate Admissions Office, requesting official transcripts or other required application material.

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FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Students in this program are not eligible for department funded opportunities in the form of teaching assistantship (TA), research assistantship (RA), or project assistantship (PA).

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	Yes

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the

advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement	30 credits
Minimum Residence Credit Requirement	16 credits
Minimum Graduate Coursework Requirement	At least 50% of credits applied toward the graduate degree credit requirement must be completed in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.
Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.
Assessments and Examinations	Contact the program for information on required assessments and examinations.
Language Requirements	Contact the program for information on any language requirements.

REQUIRED COURSES

This is a face to face, accelerated program:

- Complete the program in one academic year (fall, spring, summer)
- Courses begin in fall semester only
- Take 15 credits from the approved list of Environmental Engineering Specialization courses
- 6 credits from a second discipline within the approved list of Civil and Environmental Engineering (CEE) specialization courses, based on your career interests
- 3 credits from a third discipline within the approved list of CEE specialization courses, based on your career interests
- 5 credits of independent study
- 1 credit in a graduate student seminar

Typical Curriculum in this Program

(fall semester-12 credits, spring semester-12 credits, summer semester-6 credits; courses are chosen with the assistance of a faculty advisor)

COURSE OPTIONS

Code	Title	Credits
CIV ENGR 426	Design of Wastewater Treatment Plants	3
CIV ENGR 427	Solid and Hazardous Wastes Engineering	3
CIV ENGR 500	Water Chemistry	3
CIV ENGR 501	Water Analysis-Intermediate	3

CIV ENGR 421	Environmental Sustainability Engineering	3
CIV ENGR 700	Chemistry of Natural Waters	3
CIV ENGR/ ATM OCN 701	The Chemistry of Air Pollution	2
CIV ENGR 721	Biological Principles of Environmental Engineering	3
CIV ENGR 723	Energy Principles of Environmental Engineering	3
CIV ENGR 821	Environmental Engineering: Biological Treatment Processes	3-4
CIV ENGR 423	Air Pollution Effects, Measurement and Control	3
CIV ENGR 428	Water Treatment Plant Design	3
CIV ENGR 429	Environmental Systems Optimization	3
CIV ENGR 502	Environmental Organic Chemistry	3
CIV ENGR 522	Hazardous Waste Management	3
CIV ENGR/ SOIL SCI 623	Microbiology of Waterborne Pathogens and Indicator Organisms	3
CIV ENGR 703	Environmental Geochemistry	3
CIV ENGR 704	Environmental Chemical Kinetics	3
CIV ENGR 722	Chemical Principles of Environmental Engineering	3
CIV ENGR 822	Environmental Engineering: Physical/Chemical Treatment Process	3-4

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

NAMED OPTION-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://www.engr.wisc.edu/app/uploads/2016/02/cee-graduate-student-handbook.pdf>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count credits of graduate coursework from other institutions. Approved credits will be allowed to count toward the minimum graduate degree credit requirement and the minimum graduate coursework requirement, but will not count toward the minimum graduate residence credit requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW-Madison Undergraduate

With program approval, no more than 7 credits of coursework numbered 300 or higher from a UW-Madison undergraduate degree are allowed to count only toward the minimum graduate degree credit requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW-Madison University Special

With program approval, students are allowed to count up to 15 credits of coursework numbered 300 or above taken as a UW-Madison special student toward the Minimum Graduate Residence Credit Requirement, and the Minimum Graduate Degree Credit Requirement; those courses numbered 700 or above may be applied toward the Minimum Graduate Coursework (50%) Requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Students in the accelerated MS (named options) are not eligible for department funded opportunities.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PEOPLE

Civil and Environmental Engineering Faculty: Professors Noyce (chair), Adams, Bahia, Cramer, Feigl, Hanna, Harrington, Holloway, Hurley, Karthikeyan, Lee, Likos, Long, McMahon, Noguera, Park, Parra-Montesinos (director), Pedersen, Potter, Ran, Russell, Schauer, Wu; Associate Professors Ahn, Fratta, Hurley, Loheide, Pincheira, Tinjum; Assistant Professors Block, Gadikota, Ginder-Vogel, Hedegaard, Hicks, Prabhakar, Remucal, Sone, Wang, Wright. See also CEE faculty (<http://directory.engr.wisc.edu/cee/faculty>).

Geological Engineering Faculty: Professors Likos (director) (Civil and Environmental Engineering), Anderson (Geoscience), Bahr (Geoscience), Feigl (Geoscience), Goodwin (Geoscience), Holloway (Nelson Institute), Thurber (Geoscience), Tikoff (Geoscience), Tobin (Geoscience), Wang (Geoscience), Wu (Civil and Environmental Engineering); Associate Professors Fratta (Civil and Environmental Engineering), Loheide (Civil and Environmental Engineering), Tinjum (Engineering Professional Development); Assistant Professors Cardiff (Geoscience), Ginder-Vogel (Civil and Environmental Engineering), Hicks (Civil and Environmental Engineering), Sone (Civil and Environmental Engineering), Zoet (Geoscience); Affiliate Professors Kung (Soil Science), Lowery (Soil Science), Plesha (Engineering Physics), Potter (Civil and Environmental Engineering). See also GLE faculty (<https://www.engr.wisc.edu/geological-engineering/people>).

Environmental Chemistry and Technology: Professors Hurley (director) (Civil and Environmental Engineering), Bertram (Chemistry), Bleam (Soil Science), Ginder-Vogel (Civil and Environmental Engineering), Gadikota (Civil and Environmental Engineering), Harrington (Civil and Environmental Engineering), Karthikeyan (Biological Systems Engineering), McMahon (Civil and Environmental Engineering/Bacteriology), Pedersen (Soil Science), Remucal (Civil and Environmental Engineering), Roden (Geoscience), Root (Chemical and Biological Engineering), Schauer (Civil and Environmental Engineering), Thompson (Biological Systems Engineering). See also ECT Faculty (<https://www.engr.wisc.edu/academics/graduate-academics/environmental-chemistry-technology>).

CIVIL AND ENVIRONMENTAL ENGINEERING: GEOLOGICAL/GEOTECHNICAL ENGINEERING, M.S.

This is a named option within Civil and Environmental Engineering M.S. (p. 256)

The Geological/Geotechnical Engineering (<https://www.engr.wisc.edu/department/civil-environmental-engineering/academics/accelerated-master-science-programs-civil-environmental-engineering>) master's degree from the University of Wisconsin–Madison is interdisciplinary,

taught by faculty from the College of Engineering and the College of Letters & Science. Our program integrates expertise from geology and engineering, so you acquire deep understanding of the interrelation between nature and the built environment.

In just one year, learn to solve a variety of practical problems associated with rock and soils using principles of sustainable engineering. Combine your knowledge of geology with your engineering expertise to build structures, manage groundwater and surface water resources, construct subsurface repositories for waste disposal, and design systems to help extract mineral resources.

Our program is dynamic. You work with engineering and geoscience professors, visiting professors, academic staff members, and a cadre of research graduate and undergraduate students. Choose your electives based on your specific career or research needs. Research topics include geoenvironmental engineering, water resources, hydrology, hydrogeology, soil dynamics, and many more.

In the UW–Madison Geological/Geotechnical Engineering master's program, you develop strong skills in geoenvironmental engineering, groundwater technology, hydrogeology, rock and soil mechanics, geophysics, and geology. Graduate ready to excel in your field, whether it be consulting, petroleum and gas industries, mining, federal and state laboratories, or research.

ADMISSIONS

Applicants must first meet all of the requirements of the Graduate School. Please visit this website (<https://grad.wisc.edu>) for details.

Applicants must also meet department specific requirements as outlined below:

- Have a bachelor's degree in civil and environmental engineering from an ABET-accredited engineering program or from a recognized international institution
- Submit a 1,000 word or fewer statement of purpose; include your technical areas of interest, coursework emphasis, research experience, professional goals, faculty members you are interested in working with, and any other items relevant to your qualifications for graduate school
- Submit three letters of recommendation
- Non-native English speakers must have a Test of English as a Foreign Language (TOEFL) with a score of 580 (written) or 92 (Internet version)
- The Graduate Record Examination (GRE) is required for admission

Please do not mail paper copies of application materials. Upload the required application materials to the electronic Graduate School application, including a PDF copy of the most current transcripts. Applicants who are recommended for admission by the CEE Admissions Committee, will receive an e-mail with further instructions from the CEE Graduate Admissions Office, requesting official transcripts or other required application material.

Applicants should monitor the application status by visiting the "Graduate Application Status" window within your MyUW portal (information on this is received after submitting an application). You may need to activate a NetID to gain access to the MyUW portal.

Graduate Application Status will remain “pending” until recommendations are determined. All applicants will receive an e-mail from the CEE Graduate Admissions Team with more details once the admission committees have made decisions.

Further questions related to the CEE admissions process may be directed to ceeadmissions@engr.wisc.edu.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Students in this program are not eligible for department funded opportunities in the form of teaching assistantship (TA), research assistantship (RA), or project assistantship (PA).

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	Yes

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

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CURRICULAR REQUIREMENTS

Minimum Credit Requirement	30 credits
Minimum Residence Credit Requirement	16 credits
Minimum Graduate Coursework Requirement	At least 50% of credits applied toward the graduate degree credit requirement must be completed in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.
Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.
Assessments and Examinations	Contact the program for information on required assessments and examinations.
Language Requirements	Contact the program for information on any language requirements.

REQUIRED COURSES

Typical curriculum in this program: 12 credits fall semester. 12 credits spring semester. 6 credits summer semester. *Courses are chosen with the assistance of a faculty advisor.*

- 15 credits from the approved list of Geological/Geotechnical Engineering Specialization courses

Code	Title	Credits
G L E 401	Special Topics in Geological Engineering	1-3
G L E/GEOSCI/ M S & E 474	Rock Mechanics	3
CIV ENGR/G L E 530	Seepage and Slopes	3
G L E/GEOSCI 594	Introduction to Applied Geophysics	3
G L E/GEOSCI 595	Field Methods in Applied and Engineering Geophysics	1
CIV ENGR/G L E 635	Remediation Geotechnics	3
CIV ENGR/G L E 730	Engineering Properties of Soils	3
CIV ENGR/G L E 732	Unsaturated Soil Geoengineering	3

CIV ENGR/G L E 733	Physicochemical Basis of Soil Behavior	3
CIV ENGR/G L E 735	Soil Dynamics	3

- 6 credits from a second discipline within the approved list of Civil and Environmental Engineering specialization courses, based on your career interests.
- 3 credits from a third discipline within the approved list of CEE specialization courses, based on your career interests.
- 5 credits of G L E 699 Independent Study and 1 credit of G L E 900 Seminar

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

NAMED OPTION-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

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PRIOR COURSEWORK

Graduate Work from Other Institutions

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UW–Madison University Special

With program approval, students are allowed to count up to 15 credits of coursework numbered 300 or above taken as a UW–Madison special student toward the Minimum Graduate

Residence Credit Requirement, and the Minimum Graduate Degree Credit Requirement; those courses numbered 700 or above may be applied toward the Minimum Graduate Coursework (50%) Requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Students in the accelerated MS (named options) are not eligible for department funded opportunities.

PEOPLE

Civil and Environmental Engineering Faculty: Professors Noyce (chair), Adams, Bahia, Cramer, Feigl, Hanna, Harrington, Holloway, Hurley, Karthikeyan, Lee, Likos, Long, McMahan, Noguera, Park, Parra-Montesinos (director), Pedersen, Potter, Ran, Russell, Schauer, Wu; Associate Professors Ahn, Fratta, Hurley, Loheide, Pincheira, Tinjum; Assistant Professors Block, Gadikota, Ginder-Vogel, Hedegaard, Hicks, Prabhakar, Remucal, Sone, Wang, Wright. See also CEE faculty (<http://directory.engr.wisc.edu/cee/faculty>).

Geological Engineering Faculty: Professors Likos (director) (Civil and Environmental Engineering), Anderson (Geoscience), Bahr (Geoscience), Feigl (Geoscience), Goodwin (Geoscience), Holloway (Nelson Institute), Thurber (Geoscience), Tikoff (Geoscience), Tobin (Geoscience), Wang (Geoscience), Wu (Civil and Environmental Engineering); Associate

Professors Fratta (Civil and Environmental Engineering), Loheide (Civil and Environmental Engineering), Tinjum (Engineering Professional Development); Assistant Professors Cardiff (Geoscience), Ginder-Vogel (Civil and Environmental Engineering), Hicks (Civil and Environmental Engineering), Sone (Civil and Environmental Engineering), Zoet (Geoscience); Affiliate Professors Kung (Soil Science), Lowery (Soil Science), Plesha (Engineering Physics), Potter (Civil and Environmental Engineering). See also GLE faculty (<https://www.engr.wisc.edu/geological-engineering/people>).

Environmental Chemistry and Technology: Professors Hurley (director) (Civil and Environmental Engineering), Bertram (Chemistry), Blean (Soil Science), Ginder-Vogel (Civil and Environmental Engineering), Gadikota (Civil and Environmental Engineering), Harrington (Civil and Environmental Engineering), Karthikeyan (Biological Systems Engineering), McMahon (Civil and Environmental Engineering/Bacteriology), Pedersen (Soil Science), Remucal (Civil and Environmental Engineering), Roden (Geoscience), Root (Chemical and Biological Engineering), Schauer (Civil and Environmental Engineering), Thompson (Biological Systems Engineering). See also ECT Faculty (<https://www.engr.wisc.edu/academics/graduate-academics/environmental-chemistry-technology>).

CIVIL AND ENVIRONMENTAL ENGINEERING: STRUCTURAL ENGINEERING, M.S.

This is a named option within Civil and Environmental Engineering M.S. (p. 256)

State-of-the-art expertise informs the University of Wisconsin's Structural Engineering master's degree.

In just one year, you build a thorough understanding of the basic principles of structural engineering and gain exposure to the latest techniques and trends in civil engineering and architecture.

You have the flexibility to choose courses that focus on structural analysis and design, as well as on geotechnical engineering and construction engineering management. You may also add related coursework from other departments, such as Engineering Mechanics, to craft precisely the expertise you seek.

UW-Madison's unique combination of classroom understanding with real-world application allows you to fully master developments in the structural engineering industry and gain the practical knowledge to excel in the industry of civil and structural design.

ADMISSIONS

Applicants must first meet all of the requirements of the Graduate School. Please visit this website (<https://grad.wisc.edu>) for details.

Applicants must also meet department specific requirements as outlined below:

- Have a bachelor's degree in civil and environmental engineering from an ABET-accredited engineering program or from a recognized international institution

- Submit a 1,000 word or fewer statement of purpose; include your technical areas of interest, coursework emphasis, research experience, professional goals, faculty members you are interested in working with, and any other items relevant to your qualifications for graduate school
- Submit three letters of recommendation
- Non-native English speakers must have a Test of English as a Foreign Language (TOEFL) with a score of 580 (written) or 92 (Internet version)
- The Graduate Record Examination (GRE) is required for admission

Please do not mail paper copies of application materials. Upload the required application materials to the electronic Graduate School application, including a PDF copy of the most current transcripts. Applicants who are recommended for admission by the CEE Admissions Committee, will receive an e-mail with further instructions from the CEE Graduate Admissions Office, requesting official transcripts or other required application material.

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GRADUATE SCHOOL ADMISSIONS

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FUNDING

GRADUATE SCHOOL RESOURCES

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PROGRAM RESOURCES

Students in this program are not eligible for department funded opportunities in the form of teaching assistantship (TA), research assistantship (RA), or project assistantship (PA).

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	Yes

Mode of Instruction Definitions

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Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

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Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement At least 50% of credits applied toward the graduate degree credit requirement must be completed in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Contact the program for information on required assessments and examinations.

Language Requirements Contact the program for information on any language requirements.

REQUIRED COURSES

Typical curriculum in this program: 12 credits fall semester. 12 credits spring semester. 6 credits summer semester.

- Complete a minimum of 27 credits from the approved list of Structural Engineering Courses.

Code	Title	Credits
CIV ENGR 498	Construction Project Management	3
CIV ENGR/G L E 532	Foundations	3
CIV ENGR 649	Special Topics in Structural Engineering	1-3
CIV ENGR 744	Structural Dynamics and Earthquake Engineering	3
CIV ENGR 749	Special Topics in Structural Engineering	1-4
E M A 405	Practicum in Finite Elements	3
E M A 506	Advanced Mechanics of Materials I	3
E M A 605	Introduction to Finite Elements	3

- Complete 3 courses from the following:

Code	Title	Credits
CIV ENGR 440	Structural Analysis II	3
CIV ENGR 442	Wood Structures I	3
CIV ENGR 545	Steel Structures II	3
CIV ENGR 547	Concrete Structures II	3

- Take up to 3 credits of CIV ENGR 699 Independent Study
- Coursework plan must be coordinated and approved by your academic advisor

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

NAMED OPTION-SPECIFIC POLICIES

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PRIOR COURSEWORK

Graduate Work from Other Institutions

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UW–Madison Undergraduate

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UW–Madison University Special

With program approval, students are allowed to count up to 15 credits of coursework numbered 300 or above taken as a UW–Madison special student toward the Minimum Graduate Residence Credit Requirement, and the Minimum Graduate Degree Credit Requirement; those courses numbered 700 or above may be applied toward the Minimum Graduate Coursework (50%) Requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Students in the accelerated MS (named options) are not eligible for department funded opportunities.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PEOPLE

Civil and Environmental Engineering Faculty: Professors Noyce (chair), Adams, Bahia, Cramer, Feigl, Hanna, Harrington, Holloway, Hurley, Karthikeyan, Lee, Likos, Long, McMahan, Noguera, Park, Parra-Montesinos (director), Pedersen, Potter, Ran, Russell, Schauer, Wu; Associate Professors Ahn, Fratta, Hurley, Loheide, Pincheira, Tinjum; Assistant Professors Block, Gadikota, Ginder-Vogel, Hedegaard, Hicks, Prabhakar, Remucal, Sone, Wang, Wright. See also CEE faculty (<http://directory.engr.wisc.edu/cee/faculty>).

Geological Engineering Faculty: Professors Likos (director) (Civil and Environmental Engineering), Anderson (Geoscience), Bahr (Geoscience), Feigl (Geoscience), Goodwin (Geoscience), Holloway (Nelson Institute), Thurber (Geoscience), Tikoff (Geoscience), Tobin (Geoscience), Wang (Geoscience), Wu (Civil and Environmental Engineering); Associate Professors Fratta (Civil and Environmental Engineering), Loheide (Civil and Environmental Engineering), Tinjum (Engineering Professional Development); Assistant Professors Cardiff (Geoscience), Ginder-Vogel (Civil and Environmental Engineering), Hicks (Civil and Environmental Engineering), Sone (Civil and Environmental Engineering), Zoet (Geoscience); Affiliate Professors Kung (Soil Science), Lowery (Soil Science), Plesha (Engineering Physics), Potter (Civil and Environmental Engineering). See also GLE faculty (<https://www.engr.wisc.edu/geological-engineering/people>).

Environmental Chemistry and Technology: Professors Hurley (director) (Civil and Environmental Engineering), Bertram (Chemistry), Bleam (Soil Science), Ginder-Vogel (Civil and Environmental Engineering), Gadikota (Civil and Environmental Engineering), Harrington (Civil and Environmental Engineering), Karthikeyan (Biological Systems Engineering), McMahan (Civil and Environmental Engineering/Bacteriology), Pedersen (Soil Science), Remucal (Civil and Environmental Engineering), Roden (Geoscience), Root (Chemical and Biological Engineering), Schauer (Civil and Environmental Engineering), Thompson (Biological Systems Engineering). See also ECT Faculty (<https://>

www.engr.wisc.edu/academics/graduate-academics/environmental-chemistry-technology).

CIVIL AND ENVIRONMENTAL ENGINEERING: TRANSPORTATION ENGINEERING, M.S.

This is a named option within Civil and Environmental Engineering M.S. (p. 256)

The Transportation Engineering (<https://www.engr.wisc.edu/department/civil-environmental-engineering/academics/accelerated-master-science-programs-civil-environmental-engineering>) master's degree at the University of Wisconsin–Madison teaches you to conduct research and disseminate knowledge for the safe and efficient movement of people and goods.

Because of energy constraints, population growth, capacity constraints, and environmental awareness, there is an industry need for engineers who understand traditional engineering principles and can also adapt and embrace innovative opportunities in the field.

The Transportation Engineering master's degree focuses on technology-based learning and utilizes UW–Madison's prominence in cutting-edge scholarly research. Learn how to drive the discovery, planning, design, development, operation, maintenance, and safety of intelligent transportation systems and play the important role in connected and autonomous transportation.

You also gain the tools to develop efficient and reliable multi-modal freight systems that lead to economic growth and provide the foundation for the success of most industries.

Because the rapid growth in digital communication and automotive design requires new thinking, our program takes advantage of emerging opportunities in remote controls and the use of interactive signals in vehicles, satellites, mobile phones, and stationary traffic operations devices. Plus, you learn within UW-Madison's full-scale driving simulator and our national CV/AV proving grounds.

The unique combination of classroom understanding with real-world application allows you to fully master developments in the transportation industry.

ADMISSIONS

Applicants must first meet all of the requirements of the Graduate School. Please visit this website (<https://grad.wisc.edu>) for details.

Applicants must also meet department specific requirements as outlined below:

- Have a bachelor's degree in civil and environmental engineering from an ABET-accredited engineering program or from a recognized international institution
- Submit a 1,000 word or fewer statement of purpose; include your technical areas of interest, coursework emphasis, research experience, professional goals, faculty members you are interested in working with, and any other items relevant to your qualifications for graduate school

- Submit three letters of recommendation
- Non-native English speakers must have a Test of English as a Foreign Language (TOEFL) with a score of 580 (written) or 92 (Internet version)
- The Graduate Record Examination (GRE) is required for admission

Please do not mail paper copies of application materials. Upload the required application materials to the electronic Graduate School application, including a PDF copy of the most current transcripts. Applicants who are recommended for admission by the CEE Admissions Committee, will receive an e-mail with further instructions from the CEE Graduate Admissions Office, requesting official transcripts or other required application material.

Applicants should monitor the application status by visiting the "Graduate Application Status" window within your MyUW portal (information on this is received after submitting an application). You may need to activate a NetID to gain access to the MyUW portal.

Graduate Application Status will remain "pending" until recommendations are determined. All applicants will receive an e-mail from the CEE Graduate Admissions Team with more details once the admission committees have made decisions.

Further questions related to the CEE admissions process may be directed to ceeadmissions@engr.wisc.edu.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Students in this program are not eligible for department funded opportunities in the form of teaching assistantship (TA), research assistantship (RA), or project assistantship (PA).

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	Yes

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement At least 50% of credits applied toward the graduate degree credit requirement must be completed in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Contact the program for information on required assessments and examinations.

Language Requirements Contact the program for information on any language requirements.

REQUIRED COURSES

This is a face-to face accelerated program:

- Complete the program in one academic year (fall, spring, summer)
- Take 15 credits from the approved list of Transportation Engineering Specialization courses
- 6 credits from a second discipline within the approved list of Civil and Environmental Engineering (CEE) specialization courses, based on your career interests
- 3 credits from a third discipline within the approved list of CEE specialization courses, based on your career interests
- 5 credits of independent study
- 1 credit in a graduate student seminar

Typical curriculum in this program: 12 credits fall semester. 12 credits spring semester. 6 credits summer semester. *Courses are chosen with the assistance of a faculty advisor.*

Course Options

Code	Title	Credits
CIV ENGR 570	Environmental Impact of Transportation Systems	3
CIV ENGR 571	Urban Transportation Planning	3
CIV ENGR 573	Geometric Design of Transport Facilities	3
CIV ENGR 574	Traffic Control	3
CIV ENGR 579	Seminar-Transportation Engineering	1
CIV ENGR 679	Special Topics in Transportation and City Planning	3
CIV ENGR/ PUB AFFR 694	Management of Civil Infrastructure Systems	3
CIV ENGR 699	Independent Study	1-9

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

NAMED OPTION-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://www.engr.wisc.edu/app/uploads/2016/02/cee-graduate-student-handbook.pdf>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count credits of graduate coursework from other institutions. Approved credits will be allowed to count toward the minimum graduate degree credit requirement and the minimum graduate coursework requirement, but will not count toward the minimum graduate residence credit requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

With program approval, no more than 7 credits of coursework numbered 300 or higher from a UW–Madison undergraduate degree are allowed to count only toward the minimum graduate degree credit requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison University Special

With program approval, students are allowed to count up to 15 credits of coursework numbered 300 or above taken as a UW–Madison special student toward the Minimum Graduate Residence Credit Requirement, and the Minimum Graduate Degree Credit Requirement; those courses numbered 700 or above may be applied toward the Minimum Graduate Coursework (50%) Requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Students in the accelerated MS (named options) are not eligible for department funded opportunities.

PROFESSIONAL DEVELOPMENT**GRADUATE SCHOOL RESOURCES**

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PEOPLE

Civil and Environmental Engineering Faculty: Professors Noyce (chair), Adams, Bahia, Cramer, Feigl, Hanna, Harrington, Holloway, Hurley, Karthikeyan, Lee, Likos, Long, McMahon, Noguera, Park, Parra-Montesinos (director), Pedersen, Potter, Ran, Russell, Schauer, Wu; Associate Professors Ahn, Fratta, Hurley, Loheide, Pincheira, Tinjum; Assistant Professors Block, Gadikota, Ginder-Vogel, Hedegaard, Hicks, Prabhakar, Remucal, Sone, Wang, Wright. See also CEE faculty (<http://directory.engr.wisc.edu/cee/faculty>).

Geological Engineering Faculty: Professors Likos (director) (Civil and Environmental Engineering), Anderson (Geoscience), Bahr (Geoscience), Feigl (Geoscience), Goodwin (Geoscience), Holloway (Nelson Institute), Thurber (Geoscience), Tikoff (Geoscience), Tobin (Geoscience), Wang (Geoscience), Wu (Civil and Environmental Engineering); Associate Professors Fratta (Civil and Environmental Engineering), Loheide (Civil and Environmental Engineering), Tinjum (Engineering Professional Development); Assistant Professors Cardiff (Geoscience), Ginder-Vogel (Civil and Environmental Engineering), Hicks (Civil and Environmental Engineering), Sone (Civil and Environmental Engineering), Zoet (Geoscience); Affiliate Professors Kung (Soil Science), Lowery (Soil Science), Plesha (Engineering Physics), Potter (Civil and Environmental Engineering). See also GLE faculty (<https://www.engr.wisc.edu/geological-engineering/people>).

Environmental Chemistry and Technology: Professors Hurley (director) (Civil and Environmental Engineering), Bertram (Chemistry), Bleam (Soil Science), Ginder-Vogel (Civil and Environmental Engineering), Gadikota (Civil and Environmental Engineering), Harrington (Civil and Environmental Engineering), Karthikeyan (Biological Systems Engineering), McMahon (Civil and Environmental Engineering/Bacteriology), Pedersen (Soil Science), Remucal (Civil and Environmental Engineering), Roden (Geoscience), Root (Chemical and Biological Engineering), Schauer (Civil and Environmental Engineering), Thompson (Biological Systems Engineering). See also ECT Faculty (<https://www.engr.wisc.edu/academics/graduate-academics/environmental-chemistry-technology>).

CIVIL AND ENVIRONMENTAL ENGINEERING: WATER RESOURCES ENGINEERING, M.S.

This is a named option within Civil and Environmental Engineering M.S. (p. 256)

The Water Resources Engineering master's degree from the Department of Civil and Environmental Engineering (<https://www.engr.wisc.edu/department/civil-environmental-engineering/academics/accelerated-master-science-programs-civil-environmental-engineering>) at the

University of Wisconsin–Madison teaches you the scientific and engineering skills to evaluate, plan, and operate water resource and environmental systems.

Our program takes just one year to complete, and focuses on a systems-based approach to managing water resources for societal benefit. You learn principles of water movement through the environment and understand how to best utilize it for municipal and industrial uses, agriculture, and natural ecosystems. You also solve practical problems in hydrology; fluid mechanics; environmental flows in rivers, lake, and coastal environments; and water resource management.

Build the expertise to analyze and design systems that control all aspects of the distribution of water to meet the needs of humans and improve natural resource management. You also analyze and solve scientific and engineering questions through field methods, laboratory experiments, remote-sensing techniques, numerical and statistical modeling, and analytic approaches.

With a master’s degree in Water Resources Engineering at UW–Madison, you develop strong quantitative skills in modeling, systems thinking, and sustainability science. Graduate ready to succeed in consulting firms, federal and state laboratories and agencies, and municipal and county governments, and place yourself at the forefront of rapidly developing and world-changing innovations.

ADMISSIONS

Applicants must first meet all of the requirements of the Graduate School. Please visit this website (<https://grad.wisc.edu>) for details.

Applicants must also meet department specific requirements as outlined below:

- Have a bachelor’s degree in civil and environmental engineering from an ABET-accredited engineering program or from a recognized international institution
- Submit a 1,000 word or fewer statement of purpose; include your technical areas of interest, coursework emphasis, research experience, professional goals, faculty members you are interested in working with, and any other items relevant to your qualifications for graduate school
- Submit three letters of recommendation
- Non-native English speakers must have a Test of English as a Foreign Language (TOEFL) with a score of 580 (written) or 92 (Internet version)
- The Graduate Record Examination (GRE) is required for admission

Please do not mail paper copies of application materials. Upload the required application materials to the electronic Graduate School application, including a PDF copy of the most current transcripts. Applicants who are recommended for admission by the CEE Admissions Committee, will receive an e-mail with further instructions from the CEE Graduate Admissions Office, requesting official transcripts or other required application material.

Applicants should monitor the application status by visiting the “Graduate Application Status” window within your MyUW portal (information on this is received after submitting an application). You may need to activate a NetID to gain access to the MyUW portal.

Graduate Application Status will remain “pending” until recommendations are determined. All applicants will receive an e-mail from the CEE Graduate Admissions Team with more details once the admission committees have made decisions.

Further questions related to the CEE admissions process may be directed to ceeadmissions@engr.wisc.edu.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Students in this program are not eligible for department funded opportunities in the form of teaching assistantship (TA), research assistantship (RA), or project assistantship (PA).

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	Yes

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement	30 credits
Minimum Residence Credit Requirement	16 credits
Minimum Graduate Coursework Requirement	At least 50% of credits applied toward the graduate degree credit requirement must be completed in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.
Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.
Assessments and Examinations	Contact the program for information on required assessments and examinations.
Language Requirements	Contact the program for information on any language requirements.

REQUIRED COURSES

This is a face-to-face, accelerated program:

- 30 credit degree program
- Complete the program in one academic year (fall, spring, summer)
- Courses begin in fall semester only
- Take 18 credits from the approved list of specialized courses; up to 6 credits of advanced independent study; 1-2 credits in a graduate student seminar; and up to 6 credits from a second discipline based on your career interests and faculty advisement

Typical curriculum in this program: 12 credits fall semester. 12 credits spring semester. 6 credits summer semester.

Course Options

Code	Title	Credits
CIV ENGR 410	Hydraulic Engineering	3
CIV ENGR 411	Open Channel Hydraulics	3
CIV ENGR 412	Groundwater Hydraulics	3
CIV ENGR 414	Hydrologic Design	3
CIV ENGR 415	Hydrology	3
CIV ENGR 416	Water Resources Systems Analysis	3

CIV ENGR 421	Environmental Sustainability Engineering	3
CIV ENGR 423	Air Pollution Effects, Measurement and Control	3
CIV ENGR 426	Design of Wastewater Treatment Plants	3
CIV ENGR 427	Solid and Hazardous Wastes Engineering	3
CIV ENGR 428	Water Treatment Plant Design	3
CIV ENGR 429	Environmental Systems Optimization	3
CIV ENGR 500	Water Chemistry	3
CIV ENGR 501	Water Analysis-Intermediate	3
CIV ENGR 502	Environmental Organic Chemistry	3
CIV ENGR 514	Coastal Engineering	2-3
CIV ENGR 515	Hydroclimatology for Water Resources Management	3
CIV ENGR 522	Hazardous Waste Management	3
CIV ENGR 618	Special Topics in Hydraulics and Fluid Mechanics	1-3
CIV ENGR 619	Special Topics in Hydrology	1-3
CIV ENGR/ SOIL SCI 623	Microbiology of Waterborne Pathogens and Indicator Organisms	3
CIV ENGR 700	Chemistry of Natural Waters	3
CIV ENGR/ ATM OCN 701	The Chemistry of Air Pollution	2
CIV ENGR 703	Environmental Geochemistry	3
CIV ENGR 704	Environmental Chemical Kinetics	3
CIV ENGR 716	Statistical Modelling of Hydrologic Systems	3
CIV ENGR 721	Biological Principles of Environmental Engineering	3
CIV ENGR 722	Chemical Principles of Environmental Engineering	3
CIV ENGR 723	Energy Principles of Environmental Engineering	3
CIV ENGR/G L E 732	Unsaturated Soil Geoengineering	3
CIV ENGR 821	Environmental Engineering: Biological Treatment Processes	3-4
CIV ENGR 822	Environmental Engineering: Physical/Chemical Treatment Process	3-4
G L E/GEOSCI 594	Introduction to Applied Geophysics	3
G L E/GEOSCI 627	Hydrogeology	3-4
G L E/GEOSCI 629	Contaminant Hydrogeology	3
G L E/GEOSCI 724	Groundwater Flow Modeling	3
MICROBIO/ SOIL SCI 425	Environmental Microbiology	3

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies

beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

NAMED OPTION-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://www.engr.wisc.edu/app/uploads/2016/02/cee-graduate-student-handbook.pdf>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count credits of graduate coursework from other institutions. Approved credits will be allowed to count toward the minimum graduate degree credit requirement and the minimum graduate coursework requirement, but will not count toward the minimum graduate residence credit requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

With program approval, no more than 7 credits of coursework numbered 300 or higher from a UW–Madison undergraduate degree are allowed to count only toward the minimum graduate degree credit requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison University Special

With program approval, students are allowed to count up to 15 credits of coursework numbered 300 or above taken as a UW–Madison special student toward the Minimum Graduate Residence Credit Requirement, and the Minimum Graduate Degree Credit Requirement; those courses numbered 700 or above may be applied toward the Minimum Graduate Coursework (50%) Requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Students in the accelerated MS (named options) are not eligible for department funded opportunities.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PEOPLE

Civil and Environmental Engineering Faculty: Professors Noyce (chair), Adams, Bahia, Cramer, Feigl, Hanna, Harrington, Holloway, Hurley, Karthikeyan, Lee, Likos, Long, McMahon, Noguera, Park, Parra-Montesinos (director), Pedersen, Potter, Ran, Russell, Schauer, Wu; Associate Professors Ahn, Fratta, Hurley, Loheide, Pincheira, Tinjum; Assistant Professors Block, Gadikota, Ginder-Vogel, Hedegaard, Hicks, Prabhakar, Remucal, Sone, Wang, Wright. See also CEE faculty (<http://directory.engr.wisc.edu/cee/faculty>).

Geological Engineering Faculty: Professors Likos (director) (Civil and Environmental Engineering), Anderson (Geoscience), Bahr (Geoscience), Feigl (Geoscience), Goodwin (Geoscience), Holloway (Nelson Institute), Thurber (Geoscience), Tikoff (Geoscience), Tobin (Geoscience), Wang (Geoscience), Wu (Civil and Environmental Engineering); Associate Professors Fratta (Civil and Environmental Engineering), Loheide (Civil and Environmental Engineering), Tinjum (Engineering Professional Development); Assistant Professors Cardiff (Geoscience), Ginder-Vogel (Civil and Environmental Engineering), Hicks (Civil and Environmental Engineering), Sone (Civil and Environmental Engineering), Zoet (Geoscience); Affiliate Professors Kung (Soil Science), Lowery (Soil Science), Plesha (Engineering Physics), Potter (Civil and Environmental Engineering). See also GLE faculty (<https://www.engr.wisc.edu/geological-engineering/people>).

Environmental Chemistry and Technology: Professors Hurley (director) (Civil and Environmental Engineering), Bertram (Chemistry), Bleam (Soil Science), Ginder-Vogel (Civil and Environmental Engineering), Gadikota (Civil and Environmental Engineering), Harrington (Civil and Environmental Engineering), Karthikeyan (Biological Systems Engineering), McMahon (Civil and Environmental Engineering/Bacteriology), Pedersen (Soil Science), Remucal (Civil and Environmental Engineering), Roden (Geoscience), Root (Chemical and Biological Engineering), Schauer (Civil and Environmental Engineering), Thompson

(Biological Systems Engineering). See also ECT Faculty (<https://www.engr.wisc.edu/academics/graduate-academics/environmental-chemistry-technology>).

CIVIL AND ENVIRONMENTAL ENGINEERING, PH.D.

The mission of the civil and environmental engineering program is to develop leaders in education, industry, government and entrepreneurship who can use their acquired skills to improve society. The academic program provides a comprehensive framework of courses in the broad area of civil and environmental engineering with opportunities to develop specialized expertise. It also emphasizes the development of integrated teamwork abilities, communication, leadership, and creative research skills. Graduate study in the department offers an opportunity to undertake advanced study and research in various areas of specialization. Areas include:

- *Construction engineering and management:* construction labor productivity management, integrated lean project delivery systems, risk management, advanced computer applications to construction, and change management
- *Environmental engineering:* water supply, water quality, water treatment, wastewater treatment, solid and hazardous waste management, air pollution, biotechnology, and alternative energy
- *Geo and pavement engineering:* geotechnical, geological and geoenvironmental engineering, pavement materials and design, asphalt binders and mixtures, geosynthetics, in-situ testing and engineering geophysics, recycled materials in sustainable construction
- *Structural engineering:* behavior, analysis and design of reinforced/prestressed concrete, steel, and wood structures; design for earthquake and wind loading; seismic rehabilitation
- *Transportation engineering:* highway and traffic engineering, intelligent transportation systems, transportation planning, freight, and infrastructure management, transportation safety, user comprehension and behavior, advanced driving- and micro-simulation
- *Water resources/environmental fluid mechanics:* analysis, measurement, modeling of currents, flows, and waves in natural and constructed systems; surface and groundwater hydrology; hydraulic engineering; coastal engineering; sedimentation and transport processes; infrastructure impacts of extreme weather events, hydroecology and stream restoration

Students may also pursue studies in the broad fields of environmental engineering/science and systems analysis. Areas of specialization are organized into a constructed facilities division (including transportation engineering, structural engineering, construction engineering and management, pavement engineering, materials for constructed facilities, and geotechnical engineering) and an environmental engineering division (including geoenvironmental engineering, environmental fluid mechanics and water resources engineering, environmental science and technology, and environmental and water chemistry).

Degrees require a coordinated core program of courses, selected from CEE and other department/program offerings. Graduate degree programs closely associated with the department include engineering mechanics, human factors, environmental chemistry and technology, water resources

management, geological engineering, land resources, and limnology and marine science.

In support of the instructional and research programs are laboratory facilities for structural engineering; highway materials; transportation systems; driving simulation and human factors; soil mechanics, geotechnical and geoenvironmental engineering; coastal and hydraulic engineering; environmental fluid mechanics; environmental engineering processes and engineering chemistry. Water resources engineering, environmental engineering, and water chemistry have additional research facilities in the Water Science and Engineering Laboratory on the shore of Lake Mendota. The Environmental Engineering Field Laboratory is located at the Nine-Springs Madison Metropolitan Wastewater Treatment Plant.

ADMISSIONS

All applicants must meet the Graduate School's admission requirements (<http://grad.wisc.edu/admissions/requirements>) to be considered for admission. In addition, applicants must also meet the department's more stringent admission requirements listed below to be considered for admission:

- *Grades:* A minimum undergraduate grade point average (GPA) of 3.00 (on a 4.00 scale) on the equivalent of the last 60 semester hours (approximately two years of work) is required for domestic applicants. A strong academic performance comparable to an average of B or above grades for all undergraduate course work is required for international applicants.
- *Degree:* A bachelor's degree from an ABET-accredited engineering program or from a recognized international institution is required.

A complete graduate application is required before an application will be reviewed by the faculty. A complete graduate application contains the following:

- *Graduate School Application Form and application fee:* Applicants must submit an online application to the UW–Madison Graduate School. See Graduate School Admissions (<https://grad.wisc.edu/admissions>) to apply.
- *Statement of purpose:* A statement of purpose for graduate study must be submitted through an applicant's online UW–Madison Graduate School application. Please limit this important document to 1,000 words.
- *Letters of recommendation:* Three letters of recommendation must be submitted through an applicant's online UW–Madison Graduate School application.
- *Transcripts:* Upload the most recent copies of your transcripts to the electronic application, from each institution attended. Study abroad transcripts are not required if coursework is reflected on the degree granting university's transcript. If the application is recommended for admission then we will follow-up with instructions for official transcript submission.
- *Graduate Record Examination (GRE) Scores:* Graduate Record Examination (GRE) General Test scores are required for all applicants.
- *English proficiency scores:* Applicants whose native language is not English, or whose undergraduate instruction was not in English, must provide an English proficiency test score. Scores are accepted if they are within two years of the start of the admission term. See Graduate School Admission Requirements (<http://grad.wisc.edu/admissions/>

requirements) for more information on the English proficiency requirement.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Financial support is available through fellowships, project/program assistantships (PA), research assistantships (RA), and teaching assistantships (TA). Faculty will contact successful applicants directly regarding funding opportunities. Admission is not a guarantee of funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement	51 credits
Minimum Residence Credit Requirement	32 credits
Minimum Graduate Coursework Requirement	Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.
Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.
Assessments and Examinations	Doctoral students are required to take a comprehensive preliminary/oral examination after they have cleared their record of all Incomplete and Progress grades (other than research and thesis). Deposit of the doctoral dissertation in the Graduate School is required.
Language Requirements	Contact the program for information on any language requirements.
Doctoral Minor/Breadth Requirements	Doctoral students must complete a doctoral minor. Students will discuss minor options with the faculty advisor. Course must be approved before, or by the time, the student has completed 6 of the total credits for the minor.

REQUIRED COURSES

Basic requirements for a Ph.D. degree in Civil and Environmental Engineering include: (1) Ph.D. major coursework; (2) qualifying examination; (3) Ph.D. minor coursework; (4) preliminary examination; (5) dissertation research; and (6) final oral examination. Advanced coursework in a major area of civil and environmental engineering is required. The academic program for each doctoral student is planned on an individual basis with their advisor. 32 credits and minor coursework must be completed prior to achieving dissertator status (for students who have earned an M.S. degree, credits accumulated for the M.S. can be applied toward this requirement). All graduate students must register for a 1-credit seminar course; students will discuss seminar options with faculty advisors.

Seminar course options; must discuss seminar options with faculty advisor.

Code	Title	Credits
CIV ENGR 579	Seminar-Transportation Engineering	1
CIV ENGR/ENVIR ST/ URB R PL 717	Water Resources Management Practicum Planning Seminar I	1

CIV ENGR/ENVIR ST/ URB R PL 718	Water Resources Management Practicum Planning Seminar II	2
CIV ENGR 909	Graduate Seminar - Environmental Chemistry & Technology	1
CIV ENGR/ ATM OCN/BOTANY/ ENVIR ST/GEOSCI/ ZOOLOGY 911	Limnology and Marine Science Seminar	1
CIV ENGR 919	Seminar-Hydraulic Engineering and Fluid Mechanics	1
CIV ENGR 929	Seminar-Environmental Engineering	1
CIV ENGR 939	Geotechnical Engineering Seminar	1
CIV ENGR 949	Seminar-Structural Engineering	1

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://www.engr.wisc.edu/app/uploads/2016/02/cee-graduate-student-handbook.pdf>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count credits of graduate coursework from other institutions. Approved credits will be allowed to count toward the minimum graduate degree credit requirement and the minimum graduate coursework requirement, but will not count toward the minimum graduate residence credit requirement. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

With program approval, no more than 7 credits of coursework numbered 300 or higher from a UW–Madison undergraduate degree are allowed to count only toward the minimum graduate degree credit requirement. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison University Special

With program approval, students are allowed to count up to 15 credits of coursework numbered 300 or above taken as a UW–Madison special student toward the Minimum Graduate Residence Credit Requirement, and the Minimum Graduate Degree Credit Requirement; those courses numbered 700 or above may be applied toward the Minimum Graduate Coursework (50%) Requirement. Coursework earned ten or

more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies. An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor.

To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within 5 years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

OTHER

Faculty will contact successful applicants directly regarding funding opportunities. Admission is not a guarantee of funding.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Demonstrate an extraordinary, deep understanding of mathematical, scientific, and engineering principles in the field.

2. Demonstrate an ability to formulate, analyze, and independently solve advanced engineering problems.
3. Apply the relevant scientific and technological advancements, techniques, and engineering tools to address these problems.
4. Recognize and apply principles of ethical and professional conduct.
5. Demonstrate an ability to synthesize knowledge from a subset of the biological, physical, and/or social sciences to help frame problems critical to the future of their discipline.
6. Demonstrate an ability to conduct original research and communicate it to their peers.

PEOPLE

Civil and Environmental Engineering Faculty: Professors Noyce (chair), Adams, Bahia, Cramer, Feigl, Hanna, Harrington, Holloway, Hurley, Karthikeyan, Lee, Likos, Long, McMahon, Noguera, Park, Parra-Montesinos (director), Pedersen, Potter, Ran, Russell, Schauer, Wu; Associate Professors Ahn, Fratta, Hurley, Loheide, Pincheira, Tinjum; Assistant Professors Block, Gadikota, Ginder-Vogel, Hedegaard, Hicks, Prabhakar, Remucal, Sone, Wang, Wright. See also CEE faculty (<http://directory.engr.wisc.edu/cee/faculty>).

Geological Engineering Faculty: Professors Likos (director) (Civil and Environmental Engineering), Anderson (Geoscience), Bahr (Geoscience), Feigl (Geoscience), Goodwin (Geoscience), Holloway (Nelson Institute), Thurber (Geoscience), Tikoff (Geoscience), Tobin (Geoscience), Wang (Geoscience), Wu (Civil and Environmental Engineering); Associate Professors Fratta (Civil and Environmental Engineering), Loheide (Civil and Environmental Engineering), Tinjum (Engineering Professional Development); Assistant Professors Cardiff (Geoscience), Ginder-Vogel (Civil and Environmental Engineering), Hicks (Civil and Environmental Engineering), Sone (Civil and Environmental Engineering), Zoet (Geoscience); Affiliate Professors Kung (Soil Science), Lowery (Soil Science), Plesha (Engineering Physics), Potter (Civil and Environmental Engineering). See also GLE faculty (<https://www.engr.wisc.edu/geological-engineering/people>).

Environmental Chemistry and Technology: Professors Hurley (director) (Civil and Environmental Engineering), Bertram (Chemistry), Bleam (Soil Science), Ginder-Vogel (Civil and Environmental Engineering), Gadikota (Civil and Environmental Engineering), Harrington (Civil and Environmental Engineering), Karthikeyan (Biological Systems Engineering), McMahon (Civil and Environmental Engineering/Bacteriology), Pedersen (Soil Science), Remucal (Civil and Environmental Engineering), Roden (Geoscience), Root (Chemical and Biological Engineering), Schauer (Civil and Environmental Engineering), Thompson (Biological Systems Engineering). See also ECT Faculty (<https://www.engr.wisc.edu/academics/graduate-academics/environmental-chemistry-technology>).

GEOLOGICAL ENGINEERING, DOCTORAL MINOR

Students from departments outside of the Geological Engineering Program in the Department of Civil and Environmental Engineering can receive a Ph.D. minor in Geological Engineering. The requirements for an external minor in Geological Engineering are listed below. The minor must

be approved by Geological Engineering faculty in the Department of Civil and Environmental Engineering. The minor approval form is available at the Civil and Environmental Engineering office. Completed form can be returned to the Civil and Environmental Engineering office for review and approval.

REQUIREMENTS

1. A minimum of 9 formal course credits (not independent study or research credits) taken in the Geological Engineering curriculum.
2. Courses must be numbered 300 or above in Geological Engineering.
3. One of the courses must be numbered 600 or above in Geological Engineering.
4. Only one of the courses may be cross listed in the student's major department and cannot be used to satisfy the student's major requirements.
5. No examinations are required other than those given in each course.

PEOPLE

Civil and Environmental Engineering Faculty: Professors Noyce (chair), Adams, Bahia, Cramer, Feigl, Hanna, Harrington, Holloway, Hurley, Karthikeyan, Lee, Likos, Long, McMahon, Noguera, Park, Parra-Montesinos (director), Pedersen, Potter, Ran, Russell, Schauer, Wu; Associate Professors Ahn, Fratta, Hurley, Loheide, Pincheira, Tinjum; Assistant Professors Block, Gadikota, Ginder-Vogel, Hedegaard, Hicks, Prabhakar, Remucal, Sone, Wang, Wright. See also CEE faculty (<http://directory.engr.wisc.edu/cee/faculty>).

Geological Engineering Faculty: Professors Likos (director) (Civil and Environmental Engineering), Anderson (Geoscience), Bahr (Geoscience), Feigl (Geoscience), Goodwin (Geoscience), Holloway (Nelson Institute), Thurber (Geoscience), Tikoff (Geoscience), Tobin (Geoscience), Wang (Geoscience), Wu (Civil and Environmental Engineering); Associate Professors Fratta (Civil and Environmental Engineering), Loheide (Civil and Environmental Engineering), Tinjum (Engineering Professional Development); Assistant Professors Cardiff (Geoscience), Ginder-Vogel (Civil and Environmental Engineering), Hicks (Civil and Environmental Engineering), Sone (Civil and Environmental Engineering), Zoet (Geoscience); Affiliate Professors Kung (Soil Science), Lowery (Soil Science), Plesha (Engineering Physics), Potter (Civil and Environmental Engineering). See also GLE faculty (<https://www.engr.wisc.edu/geological-engineering/people>).

Environmental Chemistry and Technology: Professors Hurley (director) (Civil and Environmental Engineering), Bertram (Chemistry), Bleam (Soil Science), Ginder-Vogel (Civil and Environmental Engineering), Gadikota (Civil and Environmental Engineering), Harrington (Civil and Environmental Engineering), Karthikeyan (Biological Systems Engineering), McMahon (Civil and Environmental Engineering/Bacteriology), Pedersen (Soil Science), Remucal (Civil and Environmental Engineering), Roden (Geoscience), Root (Chemical and Biological Engineering), Schauer (Civil and Environmental Engineering), Thompson (Biological Systems Engineering). See also ECT Faculty (<https://www.engr.wisc.edu/academics/graduate-academics/environmental-chemistry-technology>).

GEOLOGICAL ENGINEERING, M.S.

The graduate program offers training leading to the master of science and the doctor of philosophy degrees in geological engineering. Geological engineering is a rapidly growing field of study that integrates the two disciplines of geology and engineering. Geological engineers help find the best ways to use the earth's resources for solving technical problems while protecting the environment. The need for graduate education in geological engineering has been brought about by modern developments and activities in science and industry that have an impact on earth materials including soil, rock, water, and air. The area of study combines research and application methodologies of geology and of several engineering disciplines to address engineering problems in which the geologic nature of a site or geologic processes constitute major design objectives or constraints.

Emphasis in the program is on development of the student's ability to originate and perform analytical, numerical, and/or laboratory analysis techniques to address new and challenging earth-related problems associated with modern land-use practices, earthen construction, energy and mineral extraction, and environmental pollution control and remediation. The program is expected to be of interest to students in engineering (particularly mining, civil, environmental, and mechanical) and physical sciences (particularly geology, geophysics, and geography). Students select their research topics from such areas as geotechnical and geo-environmental engineering, applied geophysics, hydrology and hydrogeology, numerical modeling of rock masses, remote sensing, rock mechanics, and soil and rock engineering.

Modern facilities include soil and rock mechanics laboratories; drilling equipment and instrumentation for rock and soil mechanics field testing; and soils, geosynthetics, and geo-environmental laboratories. Research assistantships, teaching assistantships, and fellowships are available to qualified applicants either upon admission or one to two semesters after entering the program.

ADMISSIONS

All applicants must meet the Graduate School's admission requirements (<http://grad.wisc.edu/admissions/requirements>) to be considered for admission. In addition, applicants must also meet the department's more stringent admission requirements listed below to be considered for admission:

- **Grades:** A minimum undergraduate grade point average (GPA) of 3.00 (on a 4.00 scale) on the equivalent of the last 60 semester hours (approximately two years of work) is required for domestic applicants. A strong academic performance comparable to an average of B or above grades for all undergraduate course work is required for international applicants.
- **Degree:** A bachelor's degree from an ABET-accredited engineering program or from a recognized international institution is preferred or bachelor's degree in physical sciences. Admission to the program requires approval of the admissions committee.
- A complete graduate application is required before an application will be reviewed by the faculty. A complete graduate application contains the following:
 - *Graduate School Application Form and application fee:* Applicants must submit an online application to the UW–Madison Graduate School.

See Graduate School Admissions (<http://grad.wisc.edu/admissions/requirements>) to apply.

- **Statement of purpose:** A statement of purpose for graduate study must be submitted through an applicant's online UW–Madison Graduate School application. Please limit this important document to 1,000 words.
- **Letters of recommendation:** Three letters of recommendation must be submitted through an applicant's online UW–Madison Graduate School application.
- **Transcripts:** Upload the most recent copies of your transcripts to the electronic application, from each institution attended. Study abroad transcripts are not required if coursework is reflected on the degree granting university's transcript. If the application is recommended for admission then we will follow-up with instructions for official transcript submission.
- **Graduate Record Examination (GRE) Scores:** Graduate Record Examination (GRE) General Test scores are required for all applicants.
- **English proficiency scores:** Applicants whose native language is not English, or whose undergraduate instruction was not in English, must provide an English proficiency test score. Scores are accepted if they are within two years of the start of the admission term. See Graduate School Admission Requirements (<http://grad.wisc.edu/admissions/requirements>) for more information on the English proficiency requirement.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Financial support is available through fellowships, project/program assistantships (PA), research assistantships (RA), and teaching assistantships (TA). Faculty will contact successful applicants directly regarding funding opportunities. Admission is not a guarantee of funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Contact the program for information on required assessments and examinations.

Language Requirements Contact the program for information on any language requirements.

REQUIRED COURSES

All graduate students must register for G L E 900 Seminar each spring semester. M.S. degree candidates may choose from two options for their program of study:

Thesis Option ¹

This option requires at least 16 credits of graduate-level coursework (300-level and higher) and at least 6 credits of G L E 790 Master's Research or Thesis.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Independent Study Option ¹

This option requires at least 21 credits of graduate-level coursework (300-level and higher) and 3 credits of G L E 999 Independent Work. A written report must be prepared based on the independent study project.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (https://www.engr.wisc.edu/app/uploads/2017/02/gle_graduate_student_handbook2016-2017.pdf) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count graduate coursework from other institutions toward the minimum graduate degree credit requirement and the minimum graduate coursework (50%) requirement. No credits from other institutions can be counted toward the minimum graduate residence credit requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW-Madison Undergraduate

Up to 7 credits numbered 300 or above can be counted toward the minimum graduate degree credit requirement; if those 7 credits are from courses numbered 700 or above, they may be counted toward the minimum graduate coursework (50%) requirement. No credits can be counted toward the minimum graduate residence credit requirement. Coursework earned

five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison University Special

With program approval, students are allowed to count up to 15 credits of coursework numbered 300 or above taken as a UW–Madison Special student toward the minimum graduate residence credit requirement, and the minimum graduate degree credit requirement; if those credits are from courses numbered 700 or above, they may be counted toward the minimum graduate coursework (50%) requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

n/a

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

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LEARNING OUTCOMES

1. Demonstrate a strong understanding of mathematical, scientific, and engineering principles in the field.
2. Demonstrate an ability to formulate, analyze, and solve advanced engineering problems.
3. Demonstrate creative, independent problem solving skills.
4. Apply the latest scientific and technological advancements, advanced techniques, and modern engineering tools to these problems.
5. Recognize and apply principles of ethical and professional conduct.

PEOPLE

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Environmental Chemistry and Technology: Professors Hurley (director) (Civil and Environmental Engineering), Bertram (Chemistry), Blear (Soil Science), Ginder-Vogel (Civil and Environmental Engineering), Gadikota (Civil and Environmental Engineering), Harrington (Civil and Environmental Engineering), Karthikeyan (Biological Systems Engineering), McMahon (Civil and Environmental Engineering/Bacteriology), Pedersen (Soil Science), Remucal (Civil and Environmental Engineering), Roden (Geoscience), Root (Chemical and Biological Engineering), Schauer (Civil and Environmental Engineering), Thompson (Biological Systems Engineering). See also ECT Faculty (<https://www.engr.wisc.edu/academics/graduate-academics/environmental-chemistry-technology>).

GEOLOGICAL ENGINEERING, PH.D.

The graduate program offers training leading to the master of science and the doctor of philosophy degrees in geological engineering. Geological engineering is a rapidly growing field of study that integrates the two disciplines of geology and engineering. Geological engineers

help find the best ways to use the earth's resources for solving technical problems while protecting the environment. The need for graduate education in geological engineering has been brought about by modern developments and activities in science and industry that have an impact on earth materials including soil, rock, water, and air. The area of study combines research and application methodologies of geology and of several engineering disciplines to address engineering problems in which the geologic nature of a site or geologic processes constitute major design objectives or constraints.

Emphasis in the program is on development of the student's ability to originate and perform analytical, numerical, and/or laboratory analysis techniques to address new and challenging earth-related problems associated with modern land-use practices, earthen construction, energy and mineral extraction, and environmental pollution control and remediation. The program is expected to be of interest to students in engineering (particularly mining, civil, environmental, and mechanical) and physical sciences (particularly geology, geophysics, and geography). Students select their research topics from such areas as geotechnical and geo-environmental engineering, applied geophysics, hydrology and hydrogeology, numerical modeling of rock masses, remote sensing, rock mechanics, and soil and rock engineering.

Modern facilities include soil and rock mechanics laboratories; drilling equipment and instrumentation for rock and soil mechanics field testing; and soils, geosynthetics, and geo-environmental laboratories. Research assistantships, teaching assistantships, and fellowships are available to qualified applicants either upon admission or one to two semesters after entering the program.

ADMISSIONS

All applicants must meet the Graduate School's admission requirements (<http://grad.wisc.edu/admissions/requirements>) to be considered for admission. In addition, applicants must also meet the department's more stringent admission requirements listed below to be considered for admission:

- **Grades:** A minimum undergraduate grade point average (GPA) of 3.00 (on a 4.00 scale) on the equivalent of the last 60 semester hours (approximately two years of work) is required for domestic applicants. A strong academic performance comparable to an average of B or above grades for all undergraduate course work is required for international applicants.
- **Degree:** A bachelor's degree from an ABET-accredited engineering program or from a recognized international institution is preferred or bachelor's degree in physical sciences. Admission to the program requires approval of the admissions committee.
- A complete graduate application is required before an application will be reviewed by the faculty. A complete graduate application contains the following:
 - *Graduate School Application Form and application fee:* Applicants must submit an online application to the UW–Madison Graduate School. See Graduate School Admissions (<http://grad.wisc.edu/admissions/requirements>) to apply.
 - *Statement of purpose:* A statement of purpose for graduate study must be submitted through an applicant's online UW–Madison Graduate School application. Please limit this important document to 1,000 words.

- *Letters of recommendation:* Three letters of recommendation must be submitted through an applicant's online UW–Madison Graduate School application.
- *Transcripts:* Upload the most recent copies of your transcripts to the electronic application, from each institution attended. Study abroad transcripts are not required if coursework is reflected on the degree granting university's transcript. If the application is recommended for admission then we will follow-up with instructions for official transcript submission.
- *Graduate Record Examination (GRE) Scores:* Graduate Record Examination (GRE) General Test scores are required for all applicants.
- *English proficiency scores:* Applicants whose native language is not English, or whose undergraduate instruction was not in English, must provide an English proficiency test score. Scores are accepted if they are within two years of the start of the admission term. See Graduate School Admission Requirements (<http://grad.wisc.edu/admissions/requirements>) for more information on the English proficiency requirement.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Financial support is available through fellowships, project/program assistantships (PA), research assistantships (RA), and teaching assistantships (TA). Faculty will contact successful applicants directly regarding funding opportunities. Admission is not a guarantee of funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 51 credits

Minimum Residence Credit Requirement 32 credits

Minimum Graduate Coursework Requirement Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Doctoral students are required to take a comprehensive preliminary/oral examination after they have cleared their record of all Incomplete and Progress grades (other than research and thesis). Deposit of the doctoral dissertation in the Graduate School is required.

Language Requirements Contact the program for information on any language requirements.

Doctoral Minor/Breadth Requirements All doctoral students are required to complete a minor. Selection of an Option A minor requires the approval of the minor department/program. Selection of an Option B minor requires the approval of the advisor, Mentor Committee, and the GLE Graduate Committee Chair.

REQUIRED COURSES

The academic program for each doctoral student is planned on an individual basis with their advisor.

Basic requirements for a Ph.D. degree in geological engineering include: (1) Ph.D. major coursework; (2) qualifying examination; (3) Ph.D. minor coursework; (4) preliminary examination; (5) dissertation research; and (6) final oral examination (dissertation defense).

The Graduate School minimum Ph.D. credit requirement is 51 credits. 32 credits and the doctoral minor requirement must be completed prior to achieving dissertator status (for students who have earned an M.S. degree, credits accumulated for the M.S. can be applied toward this requirement). Students must register for GLE 900 Seminar each spring semester.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (https://www.engr.wisc.edu/app/uploads/2017/02/gle_graduate_student_handbook2016-2017.pdf) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count graduate coursework from other institutions toward the minimum graduate degree credit requirement and the minimum graduate coursework (50%) requirement. No credits from other institutions can be counted toward the minimum graduate residence credit requirement. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

Up to 7 credits numbered 300 or above can be counted toward the minimum graduate degree credit requirement; if those 7 credits are from courses numbered 700 or above, they may be counted toward the minimum graduate coursework (50%) requirement. No credits can be counted toward the minimum graduate residence credit requirement. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison University Special

With program approval, students are allowed to count up to 15 credits of coursework numbered 300 or above taken as a UW–Madison Special student toward the minimum graduate residence credit requirement, and the minimum graduate degree credit requirement; if those credits are from courses numbered 700 or above, they may be counted toward the minimum graduate coursework (50%) requirement. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies. An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor.

To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

OTHER

n/a

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Demonstrate an ability to synthesize knowledge from a subset of the biological, physical, and social sciences to help frame problems critical to the future of their discipline.
2. Conduct original research.
3. Demonstrate an ability to create new knowledge and communicate it to their peers.

4. Fosters ethical and professional conduct.

PEOPLE

Civil and Environmental Engineering Faculty: Professors Noyce (chair), Adams, Bahia, Cramer, Feigl, Hanna, Harrington, Holloway, Hurley, Karthikeyan, Lee, Likos, Long, McMahon, Noguera, Park, Parra-Montesinos (director), Pedersen, Potter, Ran, Russell, Schauer, Wu; Associate Professors Ahn, Fratta, Hurley, Loheide, Pincheira, Tinjum; Assistant Professors Block, Gadikota, Ginder-Vogel, Hedegaard, Hicks, Prabhakar, Remucal, Sone, Wang, Wright. See also CEE faculty (<http://directory.engr.wisc.edu/cee/faculty>).

Geological Engineering Faculty: Professors Likos (director) (Civil and Environmental Engineering), Anderson (Geoscience), Bahr (Geoscience), Feigl (Geoscience), Goodwin (Geoscience), Holloway (Nelson Institute), Thurber (Geoscience), Tikoff (Geoscience), Tobin (Geoscience), Wang (Geoscience), Wu (Civil and Environmental Engineering); Associate Professors Fratta (Civil and Environmental Engineering), Loheide (Civil and Environmental Engineering), Tinjum (Engineering Professional Development); Assistant Professors Cardiff (Geoscience), Ginder-Vogel (Civil and Environmental Engineering), Hicks (Civil and Environmental Engineering), Sone (Civil and Environmental Engineering), Zoet (Geoscience); Affiliate Professors Kung (Soil Science), Lowery (Soil Science), Plesha (Engineering Physics), Potter (Civil and Environmental Engineering). See also GLE faculty (<https://www.engr.wisc.edu/geological-engineering/people>).

Environmental Chemistry and Technology: Professors Hurley (director) (Civil and Environmental Engineering), Bertram (Chemistry), Bleam (Soil Science), Ginder-Vogel (Civil and Environmental Engineering), Gadikota (Civil and Environmental Engineering), Harrington (Civil and Environmental Engineering), Karthikeyan (Biological Systems Engineering), McMahon (Civil and Environmental Engineering/Bacteriology), Pedersen (Soil Science), Remucal (Civil and Environmental Engineering), Roden (Geoscience), Root (Chemical and Biological Engineering), Schauer (Civil and Environmental Engineering), Thompson (Biological Systems Engineering). See also ECT Faculty (<https://www.engr.wisc.edu/academics/graduate-academics/environmental-chemistry-technology>).

CLASSICAL AND ANCIENT NEAR EASTERN STUDIES

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Classical and Ancient Near Eastern Studies, M.A. (p. 290)
- Classical and Ancient Near Eastern Studies, Ph.D. (p. 307)
- Classics, Doctoral Minor (p. 323)
- Greek, Doctoral Minor (p. 324)
- Hebrew Bible, Doctoral Minor (p. 324)
- Latin, Doctoral Minor (p. 325)

PEOPLE

FACULTY

For full faculty profiles, visit our website (<https://canes.wisc.edu/faculty>).

William Aylward: Greek and Roman archaeology
Jeffrey Beneker: Biography and historiography; Roman Republic
Jeffrey Blakely: Biblical and ancient Near Eastern archaeology
William Brockliss: Homer; Latin and Greek pedagogy
Alex Dressler: Ancient philosophy; gender and sexuality
Jeremy M. Hutton: Hebrew Bible; Northwest Semitics
Laura McClure: Greek literature; gender and reception studies
J C McKeown: Greek and Roman literature and culture
Grant Nelsestuen: Roman cultural history; Latin prose
Nandini Pandey: Latin poetry; Augustan culture
Vanessa Schmitz-Siebertz: Latin Instructor
Mike Vanden Heuvel: Theater and performance theory

AFFILIATE FACULTY

Nicholas Cahill: Ancient Greek archaeology and art history
Emily Fletcher: Ancient Greek philosophy
Paula Gottlieb: Ancient Greek philosophy; ethics
Daniel Kapust: Roman political thought; rhetoric; political theory
Marc Kleijwegt: Roman and Greek history
Leonora Neville: Roman Empire (the Byzantine Empire) in the 9th-12th centuries
Jordan Rosenblum: Rabbinic Judaism; biblical interpretation; food and religion
Claire Taylor: Greek socio-economic history; Athenian democracy; epigraphic culture

EMERITUS FACULTY

Barry Powell
 Ronald L. Troxel

ACADEMIC STAFF

Bill Bach, Department Administrator
 Toni Landis, Advisor/Student Services Coordinator

CLASSICAL AND ANCIENT NEAR EASTERN STUDIES, M.A.

Soon after the founding of the University of Wisconsin in 1848, the department was created as one of the first academic units at the university. The Department of Classical and Ancient Near Eastern Studies (CANES) has enjoyed a long tradition of excellence in **philological scholarship, literary criticism, archaeology, and ancient history**. At the graduate level, the department offers the master of arts and doctor of philosophy in classical and ancient near eastern studies. Students may follow one of two courses of study, **classical languages and literatures, or Hebrew bible**.

The **primary goal** of the program is to familiarize students with the **core linguistic, historical, and philological** aspects of classical and ancient near eastern studies. Students also learn to **conduct original research** in such varied areas as *gender studies, literary theory, translation studies, and classical reception* under the guidance of established scholars in these areas.

In addition to specified coursework, students participate in **directed readings** with individual faculty members in their areas of specialization and gain valuable professional experience **teaching** in courses on the languages, literature, and culture of the ancient world. Additional work may be done in allied fields such as *archaeology, art history, linguistics, comparative literature, history, philosophy, and political science*. Affiliated faculty in many of these fields regularly offer courses, supervise theses and dissertations, and participate in department activities.

A wide range of **professional networks** provides graduate students with enhanced opportunities for education and career development. In addition to faculty connections to scholars and institutions in their fields of study, the department has formal affiliations with the Society for Classical Studies, the Classical Association of the Middle West and South, the American School of Classical Studies in Athens, the Society of Biblical Literature, and the American Schools of Oriental Research.

The Pillinger Library and Mansoor Reading Room, both located within the department, provide convenient access to a large number of texts, while the larger Greek and Latin Reading Room in the Memorial Library contains an extensive, noncirculating research collection of texts and commentaries. The Memorial Library maintains an excellent research collection of books and periodicals in classics and Hebrew bible, with many of its resources available online.

ADMISSIONS

Students apply to the Master of Arts in Classical and Ancient Near Eastern Studies through one of the named options:

- Classics (p. 295)
- Hebrew Bible (p. 301)

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

The Department of Classical and Ancient Near Eastern Studies works to support all graduate students in good standing who continue to make satisfactory progress toward their degree. The department makes every attempt to distribute its resources as fairly as possible outside of guaranteed support offers. Thus, it is the department's intention to give the maximum number of graduate students in the Classics and Hebrew Bible programs an opportunity to hold teaching assistantships (TA) consistent with the department's needs and criteria. It should be remembered that teaching funds are variable, depending on budget and class enrollments. All students are encouraged to pursue opportunities for support outside the department at all stages of their study. Details can be found below.

TEACHING ASSISTANTSHIPS

Criteria: Teaching assistant appointments will be offered to eligible graduate students on the basis of the following criteria: contractual obligations made to the student, satisfactory progress towards degree,

satisfactory student evaluations and faculty teaching observations, departmental judgment of the student's qualification to teach scheduled courses, and availability of budgeted positions.

Eligibility: To be eligible to become a teaching assistant, graduate students should ordinarily meet the following requirements: students should be enrolled in the Classics or Hebrew Bible graduate program (exceptions will be made due to lack of qualified or available students), students should be making satisfactory progress towards an advanced degree, and students should not have exceeded the limited allotment of teaching within the department (five years after the B.A. or three years after the M.A.).

Students who are non-native speakers of English must complete the SPEAK test for assessing English proficiency. The SPEAK test is the institutional version of the Test of Spoken English (TSE), which is administered by the Educational Testing Service. The SPEAK test measures oral proficiency and is frequently used to evaluate the spoken English of international TAs. The test is available only to students holding or under consideration for a teaching assistantship. For information and scheduled tests, please consult the English as a Second Language website (<http://www.english.wisc.edu/esl>). Students must achieve a score of 45 or higher before being placed in the classroom.

Class Assignments: Class assignments are made by the department chair in consultation with department faculty with consideration of the following items in order of importance: previous positive assessment of teaching ability, fair rotation of teaching among qualified graduate students, background and experience of the TA in course materials, the need for graduate students to have a variety of teaching experiences, the preference of the TA, and the preference of the instructor.

Training Program: All TAs are required to attend the department's annual Graduate Student Orientation and Teaching Assistant Workshop. Subjects discussed in the department's annual workshop include preparation, organization, sensitivity to ethnic and gender issues, and pedagogical methods. Experienced TAs are encouraged to share successful teaching methods and ideas with the group in an open discussion. Information is also provided on such university resources as the Writing Center.

New TAs are also required to attend the L&S Teaching Assistant Workshop and the Graduate Assistants Equity Workshop within the first two semesters of teaching appointments. In addition, for TAs with a first-time Comm B appointment, the Writing Across Campus Comm B Training workshop will also be required. TAs are also encouraged to take advantage of the writing workshops offered by the Writing Center at the start of the academic year and throughout each semester.

For each course, the TA must meet with the professor to outline the goals and objectives of the course, the exam and grading procedures, the syllabus and assigned readings, and specific pedagogical methods appropriate for the course. The syllabus of each course should include the name, office number, and phone number, of the supervising professor, the TA, and the current department chair. Should there be concerns about the course that the TA feels unable to address, he or she can refer students to the professor in charge of the course for initial consultation. Regular meetings between the TA and the professor are held throughout the semester to discuss the progress and success of the course.

Review: Within the first few weeks of class, the supervising professor will observe the TA, with new TAs being a priority. After the visit, the professor will discuss the strengths and weaknesses of the class and put forward a set of recommendations for further teaching development. A written

evaluation, to be discussed in person, is then provided to the department chair and will be placed in the student's file. If the chair deems necessary, a second faculty member will make an additional classroom observation with a written evaluation. At the end of each semester or course, student evaluations for the TA classes are to be completed and kept on file in the department for future reference.

Workload/Percentage of Appointment: Teaching assistantship appointments are percentage based. The percentage of appointment is based on the total expected hours of work throughout the course of the semester. For example, a 33% TA would be expected to work a total of 240 hours over the semester, which is roughly 13 hours per week. The CANES department has teaching appointments that range from 33.4% to 50% time depending on the course assigned.

Each TA will receive a breakdown of expected workload with their official appointment letter. The TA is expected to review and discuss the workload with the supervising faculty member of the course. By signing and returning the workload to the department administrator, the TA is accepting his or her appointment for the semester.

Stipend & Benefits: The current pay rate for a full-time beginning TA is about \$31,300 per year. The approximate stipend for a 33.4% position is roughly \$5225 per semester.

All graduate assistantships at or above 33.4% include full tuition remission, a full array of benefits including health insurance, and office space within the department. Spring teaching appointments also carry summer tuition remission.

DEPARTMENTAL TRAVEL SUPPORT

Eligibility Guidelines: The CANES department can provide some funding for Classics students who are presenting a paper addressing a topic in the classics field or interviewing for hire. Applicable conferences include the ASA and CAMWS, but other conferences such as graduate student colloquia will also be considered. First time recipients of this award may be asked to present a departmental Pillinger Talk in preparation for their conference presentation.

All applications for department travel must be supported by satisfactory progress in the student's program. Graduate students may submit one request for travel support to the department per academic year. Every attempt will be made to fund student travel up to a maximum of \$750. Students should recognize that funding is based on availability. The Fellowships Committee will assess the validity of all applications and determine the amount of each individual award if granted.

Before requesting travel funds from the department, graduate students should conduct due diligence to learn about and apply for travel awards offered by other units (Graduate School, ASM, etc.) at UW-Madison and by sponsors of the event for which travel funds are requested. Evidence of awards applied for and/or received should accompany all requests for department travel funding. Being competitive for awards outside the department is a matter of professional development.

Application: Having applied for travel awards and supplements from external sources, students should then petition the CANES department for travel support. All petitions are considered on a case by case basis and evaluated on the basis of academic merit and satisfactory progress in the graduate program.

Petitions should take form of a letter addressed to the chair of the graduate Fellowships Committee detailing the title of the talk, proof of acceptance, the date and place of the conference, and any other relevant

information. All petitions should include a budget and should disclose details of awards or denial of funding from other sources.

Awards from other sources will not necessarily disqualify students from classics department funding. The applications will be read and voted on by the committee which will attempt to respond to requests in a timely fashion. The student will be notified in writing by the chair of the committee normally within a few weeks of the submission of application.

Since applications will be read on a rolling basis and funds are usually more plentiful at the beginning of the year, students are encouraged to apply early.

SCHOLARSHIPS & FELLOWSHIPS

Adams-Lemoine Dissertation Fellowship: This fellowship is awarded in memory of C.K. Adams, Professor of Latin & History and University of Wisconsin President from 1892 to 1902, and Fannie Lemoine, Professor of Latin from 1906 to 1923. The Adams-Lemoine Fellowship is utilized for student recruitment or completion of degree. It provides tuition remission, a stipend, and benefits in accordance with published University award amounts. Award periods vary and funding may be available for one or two semesters of study.

Moses S. Slaughter Fellowship: This fellowship is awarded in memory of Moses S. Slaughter, University of Wisconsin Professor of Latin from 1906 to 1923. The Slaughter Fellowship is given to a current or incoming graduate student who maintains **Wisconsin residency**. It provides tuition remission, a stipend, and benefits in accordance with published university award amounts and may supply funding for one or two semesters of study.

Frank R. Kramer Summer Fellowship: A predoctoral summer research grant awarded in memory of Dr. Frank R. Kramer, who earned a B.A. in Humanities in 1929, an M.A. in Greek & Latin in 1931, and a Ph.D. in Classics in 1936. The Kramer Fellowship is meant to enable graduate students in their second year of study or above (pre-dissertation) to receive support for research connected to the advancement of their studies in Classics. Calls for applications typically come out in December and recipients are notified in late January. Award totals range between \$750-\$2,000.

Hieronimus Prize for Greek Composition: This monetary award is given in memory of Professor John Paul Hieronimus (Ph.D. '31). Entrants are asked to translate a selected passage into ancient Greek or compose an original piece in ancient Greek addressing a specific topic. Awards are given in late spring.

Pillinger Prize for Latin Composition: This monetary award is given in memory of Assistant Professor Hugh Edward Pillinger (1965–70). Entrants are asked to translate a selected passage into Latin or compose an original piece in Latin addressing a specific topic. Awards are given in late spring.

OTHER FUNDING OPTIONS

The Graduate School provides additional information helpful to graduate students in need of funding.

Find information about:

Types of funding available (<https://grad.wisc.edu/studentfunding/types>)

How to search for funding (<https://grad.wisc.edu/studentfunding/steps>)

Funding for international students (<https://iss.wisc.edu/students/new-students/funding-scholarships>)

General funding resources on campus (<https://grad.wisc.edu/studentfunding/resources>)

- Center for Jewish Studies (<https://jewishstudies.wisc.edu/students/scholarships>)
- Dana-Allen Dissertation Fellowship (<https://irh.wisc.edu/fellowships/dissertation>)
- Robert J. Reinhold Dissertation Fellowship in Classics (<https://irh.wisc.edu/fellowships/dissertation>)

External funding options (<https://grad.wisc.edu/funding/fellowships>) (includes some prizes & modest awards) (found near the bottom of the page)

- American Association of University Women (<http://www.aauw.org/what-we-do/educational-funding-and-awards>)
- American Council of Learned Societies (<http://www.acls.org/programs/comps>)
- Archaeological Institute of America (<https://www.archaeological.org/grants>)
- Classical Association of the Middle West and South (<https://camws.org/awards>)
- Dolores Zohrab Liebmann Fund (<http://fdnweb.org/liebmann>) (specific to Armenian studies)
- Gorgias Press (<https://www.gorgiaspress.com/awards>)
- Jacob K. Javits Fellowship Program (<https://www2.ed.gov/programs/jacobjavits>) (US Dept of Ed)
- Society for Classical Studies (<https://classicalstudies.org/awards-fellowships>)
- Woodrow Wilson Dissertation Fellowship in Women's Studies (<http://woodrow.org/fellowships/womens-studies>)

Conference presentation funds (<https://grad.wisc.edu/studentfunding/grantscomp/conference>)

RESEARCH TRAVEL AWARDS

Research travel awards (<https://grad.wisc.edu/studentfunding/grantscomp/research>) available through the Graduate School

Albright Institute of Archeological Research (<http://www.aiar.org/available-fellowships>)

American Academy in Rome (<http://www.aarome.org/apply/affiliated-fellowships>)

- Rome Prize (<http://www.aarome.org/apply>)

American Center of Oriental Research (<https://www.acorjordan.org/about-acor-fellowships/#1473242438101-4bc0afd9-e672>)

American Council of Learned Societies (<http://www.acls.org/programs/comps>)

American School of Classical Studies at Athens (<http://www.ascsa.edu.gr/index.php/admission-membership/grants>)

American Schools of Oriental Research (<http://www.asor.org/fellowships/excavation-grants-fellowships>)

- Biblical Archaeological Society Dig Scholarships (<http://digs.bib-arch.org/scholarships>)
- Chateaubriand Fellowship (<https://www.chateaubriand-fellowship.org>)
- Classical Association of the Middle West and South (<https://camws.org/awards>)
- German Academic Exchange Service (<https://www.daad.org/en/find-funding>) (DAAD)
- Getty Foundation (<http://www.getty.edu/foundation/apply>)
- Harvard Society of Fellows (<https://socfell.fas.harvard.edu/about>)
- Lady Davis Fellowship Trust (<http://ldft.huji.ac.il>)
- The Palestine Exploration Fund (<http://www.pef.org.uk/grants>)
- Royal Historical Society (<http://royalhistsoc.org/grants/research-expenses/research-expenses-for-overseas-students-guidelines>)
- Marshall & Centenary Fellowships (<http://royalhistsoc.org/grants/marshall-centenary-fellowships>)
- Mary Isabel Sibley Fellowship (https://www.pbk.org/WEB/PBK_Member/PROGRAMS/AWARDS___FELLOWSHIPS/Sibley_Fellowship/PBK_Member/Programs/Awards___Fellowships/Sibley_Fellowship.aspx?hkey=fe51c0cb-0859-40c6-965f-665744f69cab)
- Society for Classical Studies (<https://classicalstudies.org/awards-fellowships>)

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Requirement	36 credits
Minimum Residence Credit Requirement	18 credits
Minimum Graduate Coursework Requirement	See either the M.A. named option in Classics (https://next-guide.wisc.edu/graduate/classical-ancient-near-eastern-studies/classical-ancient-near-eastern-studies-ma/classical-ancient-near-eastern-studies-classics-ma/#requirementstext) or Hebrew Bible (https://next-guide.wisc.edu/graduate/classical-ancient-near-eastern-studies/classical-ancient-near-eastern-studies-ma/classical-ancient-near-eastern-studies-hebrew-bible-ma/#requirementstext) for the requirement information.
Overall Graduate GPA Requirement	See either the M.A. named option in Classics (https://next-guide.wisc.edu/graduate/classical-ancient-near-eastern-studies/classical-ancient-near-eastern-studies-ma/classical-ancient-near-eastern-studies-classics-ma/#requirementstext) or Hebrew Bible (https://next-guide.wisc.edu/graduate/classical-ancient-near-eastern-studies/classical-ancient-near-eastern-studies-ma/classical-ancient-near-eastern-studies-hebrew-bible-ma/#requirementstext) for the requirement information.
Other Grade Requirements	The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.
Assessments and Examinations	See either the M.A. named option in Classics (https://next-guide.wisc.edu/graduate/classical-ancient-near-eastern-studies/classical-ancient-near-eastern-studies-ma/classical-ancient-near-eastern-studies-classics-ma/#requirementstext) or Hebrew Bible (https://next-guide.wisc.edu/graduate/classical-ancient-near-eastern-studies/classical-ancient-near-eastern-studies-ma/classical-ancient-near-eastern-studies-hebrew-bible-ma/#requirementstext) for the requirement information.
Language Requirements	See either the M.A. named option in Classics (https://next-guide.wisc.edu/graduate/classical-ancient-near-eastern-studies/classical-ancient-near-eastern-studies-ma/classical-ancient-near-eastern-studies-classics-ma/#requirementstext) or Hebrew Bible (https://next-guide.wisc.edu/graduate/classical-ancient-near-eastern-studies/classical-ancient-near-eastern-studies-ma/classical-ancient-near-eastern-studies-hebrew-bible-ma/#requirementstext) for the requirement information.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

Note: The major is currently non-admitting. Students are admitted through one of the named options (sub-majors) below (p. 294).

MODE OF INSTRUCTION

Face to Face	Evening/Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

REQUIRED COURSES

Select a Named Option (p. 294) for courses required.

NAMED OPTIONS (SUB-MAJORS)

A named option is a formally documented sub-major within an academic major program. Named options appear on the transcript with degree conferral. Students pursuing the Master of Arts in Classical and Ancient Near Eastern Studies must select one of the following named options:

- Classical and Ancient Near Eastern Studies: Classics, M.A. (p. 295)
- Classical and Ancient Near Eastern Studies: Hebrew Bible, M.A. (p. 300)

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

See either the M.A. named option in Classics (p. 299) or Hebrew Bible (p. 305) for the policy information.

UW–Madison Undergraduate

See either the M.A. named option in Classics (p. 299) or Hebrew Bible (p. 305) for the policy information.

UW–Madison University Special

See either the M.A. named option in Classics (p. 299) or Hebrew Bible (p. 305) for the policy information.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

ADVISOR / COMMITTEE

See either the M.A. named option in Classics (p. 299) or Hebrew Bible (p. 305) for the policy information.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

See either the M.A. named option in Classics (p. 299) or Hebrew Bible (p. 305) for the policy information.

OTHER

All applications received by January 5 are eligible for fellowship, scholarship, and graduate assistantship opportunities. For applications received after the deadline, applicants will not be eligible for university fellowships or scholarships, although you may be eligible for department funds such as teaching assistantships, project assistantships, research assistantships, or department fellowship.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Articulates, critiques, and applies the philological and theoretical approaches established in the field of Classics or Hebrew Bible.
2. Identifies appropriate sources and assembles evidence relevant to questions and challenges in Classics or Hebrew Bible.
3. Demonstrates understanding of Classical or Hebrew Bible literature in a historical and social context.
4. Selects and utilizes the most appropriate methodologies and practices.
5. Evaluates and synthesizes information pertaining to questions and challenges.
6. Communicates complex ideas in a clear and understandable manner.
7. Recognizes and applied principles of ethical and professional conduct.

PEOPLE

FACULTY

For full faculty profiles, visit our website (<https://canes.wisc.edu/faculty>).

William Aylward: Greek and Roman archaeology

Jeffrey Beneker: Biography and historiography; Roman Republic

Jeffrey Blakely: Biblical and ancient Near Eastern archaeology

William Brockliss: Homer; Latin and Greek pedagogy

Alex Dressler: Ancient philosophy; gender and sexuality

Jeremy M. Hutton: Hebrew Bible; Northwest Semitics

Laura McClure: Greek literature; gender and reception studies

J C McKeown: Greek and Roman literature and culture

Grant Nelsestuen: Roman cultural history; Latin prose
Nandini Pandey: Latin poetry; Augustan culture
Vanessa Schmitz-Siebertz: Latin Instructor
Mike Vanden Heuvel: Theater and performance theory

AFFILIATE FACULTY

Nicholas Cahill: Ancient Greek archaeology and art history
Emily Fletcher: Ancient Greek philosophy
Paula Gottlieb: Ancient Greek philosophy; ethics
Daniel Kapust: Roman political thought; rhetoric; political theory
Marc Kleijwegt: Roman and Greek history
Leonora Neville: Roman Empire (the Byzantine Empire) in the 9th-12th centuries
Jordan Rosenblum: Rabbinic Judaism; biblical interpretation; food and religion
Claire Taylor: Greek socio-economic history; Athenian democracy; epigraphic culture

EMERITUS FACULTY

Barry Powell
 Ronald L. Troxel

ACADEMIC STAFF

Bill Bach, Department Administrator
 Toni Landis, Advisor/Student Services Coordinator

CLASSICAL AND ANCIENT NEAR EASTERN STUDIES: CLASSICS, M.A.

This is a named option within the Classical and Ancient Near Eastern Studies M.A. (p. 290)

Soon after the founding of the University of Wisconsin in 1848, the department was created as one of the first academic units at the university. The Department of Classical and Ancient Near Eastern Studies (CANES) has enjoyed a long tradition of excellence in **philological scholarship, literary criticism, archaeology, and ancient history**. At the graduate level, the department offers the master of arts and doctor of philosophy in classical and ancient near eastern studies. Students may follow one of two courses of study, **classical languages and literatures, or Hebrew bible**.

The **primary goal** of the program is to familiarize students with the **core linguistic, historical, and philological** aspects of classical and ancient near eastern studies. Students also learn to **conduct original research** in such varied areas as *gender studies, literary theory, translation studies, and classical reception* under the guidance of established scholars in these areas.

In addition to specified coursework, students participate in **directed readings** with individual faculty members in their areas of specialization and gain valuable professional experience **teaching** in courses on the languages, literature, and culture of the ancient world. Additional work may be done in allied fields such as *archaeology, art history, linguistics, comparative literature, history, philosophy, and political science*. Affiliated faculty in many of these fields regularly offer courses, supervise theses and dissertations, and participate in department activities.

A wide range of **professional networks** provides graduate students with enhanced opportunities for education and career development. In addition to faculty connections to scholars and institutions in their

fields of study, the department has formal affiliations with the Society for Classical Studies, the Classical Association of the Middle West and South, the American School of Classical Studies in Athens, the Society of Biblical Literature, and the American Schools of Oriental Research.

The Pillinger Library and Mansoor Reading Room, both located within the department, provide convenient access to a large number of texts, while the larger Greek and Latin Reading Room in the Memorial Library contains an extensive, noncirculating research collection of texts and commentaries. The Memorial Library maintains an excellent research collection of books and periodicals in classics and Hebrew bible, with many of its resources available online.

ADMISSIONS

Applicants for graduate study may enter the program with either a B.A. or M.A. (M.A., M.Div., Th.M.) degree. For the *Classics* option, candidates are expected to have covered at least the equivalent of an undergraduate major in Classics, which consists of at least three years of both Greek and Latin. For the option in *Hebrew Bible* program, candidates are expected to have taken at least two years of Biblical Hebrew and one year of Greek. Candidates whose preparation falls short of the minimum requirements may be admitted with deficiencies at the discretion of the department, but will be required to do additional work within the first year of the program.

Applications are evaluated on the basis of previous academic record, Graduate Record Exam (GRE) scores, letters of recommendation, the writing sample and a personal statement.

All applicants to the program must apply on-line (<https://apply.grad.wisc.edu/Account/Login?ReturnUrl=%2f>) by January 5. **ONLY select the M.A. application if you plan on a terminal M.A. at UW-Madison; all other applicants select the Ph.D. application even if you have not yet received an M.A.** *Please note:* the \$75 application fee must be paid at the time of application (international students will be charged an additional \$6 for processing).

As part of the online application process, you will be asked supplemental questions regarding your level of language preparation and expected to **upload** the information listed below:

1. Writing sample of scholarly work no more than 25 pages (optional).
2. Transcripts or academic records from **each** institution attended. You may upload *unofficial* copies for department review. International academic records must be in the original language accompanied by an official English translation. *Please note:* official transcripts will only be requested by the Graduate School upon department recommendation for admission. Further information will be provided upon admission.
3. Official Graduate Record Examination (GRE) (<http://www.gre.org>) score report sent from the Educational Testing Service (ETS). **Use institution code 1846** to route your results to the UW Grad School. Once results are received, they will populate in your online application.
4. TOEFL or MELAB (<https://grad.wisc.edu/admissions/requirements>) for all international applicants.
5. Statement of purpose (citing your reasons for graduate study).
6. Curriculum vitae listing language experience, awards, honors, etc.
7. Three letters of reference. You must submit your *requests* to all three of your references as part of the online application.

Recommenders will receive a notice via email and will submit their letters accordingly.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

The Department of Classical and Ancient Near Eastern Studies works to support all graduate students in good standing who continue to make satisfactory progress toward their degree. The department makes every attempt to distribute its resources as fairly as possible outside of guaranteed support offers. Thus, it is the department's intention to give the maximum number of graduate students in the Classics and Hebrew Bible programs an opportunity to hold teaching assistantships (TA) consistent with the department's needs and criteria. It should be remembered that teaching funds are variable, depending on budget and class enrollments. All students are encouraged to pursue opportunities for support outside the department at all stages of their study. Details can be found below.

TEACHING ASSISTANTSHIPS

Criteria: Teaching assistant appointments will be offered to eligible graduate students on the basis of the following criteria: contractual obligations made to the student, satisfactory progress towards degree, satisfactory student evaluations and faculty teaching observations, departmental judgment of the student's qualification to teach scheduled courses, and availability of budgeted positions.

Eligibility: To be eligible to become a teaching assistant, graduate students should ordinarily meet the following requirements: students should be enrolled in the Classics or Hebrew Bible graduate program (exceptions will be made due to lack of qualified or available students), students should be making satisfactory progress towards an advanced degree, and students should not have exceeded the limited allotment of teaching within the department (five years after the B.A. or three years after the M.A.).

Students who are non-native speakers of English must complete the SPEAK test for assessing English proficiency. The SPEAK test is the institutional version of the Test of Spoken English (TSE), which is administered by the Educational Testing Service. The SPEAK test measures oral proficiency and is frequently used to evaluate the spoken English of international TAs. The test is available only to students holding or under consideration for a teaching assistantship. For information and scheduled tests, please consult the English as a Second Language

website (<http://www.english.wisc.edu/esl>). Students must achieve a score of 45 or higher before being placed in the classroom.

Class Assignments: Class assignments are made by the department chair in consultation with department faculty with consideration of the following items in order of importance: previous positive assessment of teaching ability, fair rotation of teaching among qualified graduate students, background and experience of the TA in course materials, the need for graduate students to have a variety of teaching experiences, the preference of the TA, and the preference of the instructor.

Training Program: All TAs are required to attend the department's annual Graduate Student Orientation and Teaching Assistant Workshop. Subjects discussed in the department's annual workshop include preparation, organization, sensitivity to ethnic and gender issues, and pedagogical methods. Experienced TAs are encouraged to share successful teaching methods and ideas with the group in an open discussion. Information is also provided on such university resources as the Writing Center.

New TAs are also required to attend the L&S Teaching Assistant Workshop and the Graduate Assistants Equity Workshop within the first two semesters of teaching appointments. In addition, for TAs with a first-time Comm B appointment, the Writing Across Campus Comm B Training workshop will also be required. TAs are also encouraged to take advantage of the writing workshops offered by the Writing Center at the start of the academic year and throughout each semester.

For each course, the TA must meet with the professor to outline the goals and objectives of the course, the exam and grading procedures, the syllabus and assigned readings, and specific pedagogical methods appropriate for the course. The syllabus of each course should include the name, office number, and phone number, of the supervising professor, the TA, and the current department chair. Should there be concerns about the course that the TA feels unable to address, he or she can refer students to the professor in charge of the course for initial consultation. Regular meetings between the TA and the professor are held throughout the semester to discuss the progress and success of the course.

Review: Within the first few weeks of class, the supervising professor will observe the TA, with new TAs being a priority. After the visit, the professor will discuss the strengths and weaknesses of the class and put forward a set of recommendations for further teaching development. A written evaluation, to be discussed in person, is then provided to the department chair and will be placed in the student's file. If the chair deems necessary, a second faculty member will make an additional classroom observation with a written evaluation. At the end of each semester or course, student evaluations for the TA classes are to be completed and kept on file in the department for future reference.

Workload/Percentage of Appointment: Teaching assistantship appointments are percentage based. The percentage of appointment is based on the total expected hours of work throughout the course of the semester. For example, a 33% TA would be expected to work a total of 240 hours over the semester, which is roughly 13 hours per week. The CANES department has teaching appointments that range from 33.4% to 50% time depending on the course assigned.

Each TA will receive a breakdown of expected workload with their official appointment letter. The TA is expected to review and discuss the workload with the supervising faculty member of the course. By signing and returning the workload to the department administrator, the TA is accepting his or her appointment for the semester.

Stipend & Benefits: The current pay rate for a full-time beginning TA is about \$31,300 per year. The approximate stipend for a 33.4% position is roughly \$5225 per semester.

All graduate assistantships at or above 33.4% include full tuition remission, a full array of benefits including health insurance, and office space within the department. Spring teaching appointments also carry summer tuition remission.

DEPARTMENTAL TRAVEL SUPPORT

Eligibility Guidelines: The CANES department can provide some funding for Classics students who are presenting a paper addressing a topic in the classics field or interviewing for hire. Applicable conferences include the ASA and CAMWS, but other conferences such as graduate student colloquia will also be considered. First time recipients of this award may be asked to present a departmental Pillinger Talk in preparation for their conference presentation.

All applications for department travel must be supported by satisfactory progress in the student's program. Graduate students may submit one request for travel support to the department per academic year. Every attempt will be made to fund student travel up to a maximum of \$750. Students should recognize that funding is based on availability. The Fellowships Committee will assess the validity of all applications and determine the amount of each individual award if granted.

Before requesting travel funds from the department, graduate students should conduct due diligence to learn about and apply for travel awards offered by other units (Graduate School, ASM, etc.) at UW–Madison and by sponsors of the event for which travel funds are requested. Evidence of awards applied for and/or received should accompany all requests for department travel funding. Being competitive for awards outside the department is a matter of professional development.

Application: Having applied for travel awards and supplements from external sources, students should then petition the CANES department for travel support. All petitions are considered on a case by case basis and evaluated on the basis of academic merit and satisfactory progress in the graduate program.

Petitions should take form of a letter addressed to the chair of the graduate Fellowships Committee detailing the title of the talk, proof of acceptance, the date and place of the conference, and any other relevant information. All petitions should include a budget and should disclose details of awards or denial of funding from other sources.

Awards from other sources will not necessarily disqualify students from classics department funding. The applications will be read and voted on by the committee which will attempt to respond to requests in a timely fashion. The student will be notified in writing by the chair of the committee normally within a few weeks of the submission of application.

Since applications will be read on a rolling basis and funds are usually more plentiful at the beginning of the year, students are encouraged to apply early.

SCHOLARSHIPS & FELLOWSHIPS

Adams-Lemoine Dissertation Fellowship: This fellowship is awarded in memory of C.K. Adams, Professor of Latin & History and University of Wisconsin President from 1892 to 1902, and Fannie Lemoine, Professor of Latin from 1906 to 1923. The Adams-Lemoine Fellowship is utilized for student recruitment or completion of degree. It provides tuition remission, a stipend, and benefits in accordance with published University award

amounts. Award periods vary and funding may be available for one or two semesters of study.

Moses S. Slaughter Fellowship: This fellowship is awarded in memory of Moses S. Slaughter, University of Wisconsin Professor of Latin from 1906 to 1923. The Slaughter Fellowship is given to a current or incoming graduate student who maintains **Wisconsin residency**. It provides tuition remission, a stipend, and benefits in accordance with published university award amounts and may supply funding for one or two semesters of study.

Frank R. Kramer Summer Fellowship: A predoctoral summer research grant awarded in memory of Dr. Frank R. Kramer, who earned a B.A. in Humanities in 1929, an M.A. in Greek & Latin in 1931, and a Ph.D. in Classics in 1936. The Kramer Fellowship is meant to enable graduate students in their second year of study or above (pre-dissertation) to receive support for research connected to the advancement of their studies in Classics. Calls for applications typically come out in December and recipients are notified in late January. Award totals range between \$750-\$2,000.

Hieronimus Prize for Greek Composition: This monetary award is given in memory of Professor John Paul Hieronimus (Ph.D. '31). Entrants are asked to translate a selected passage into ancient Greek or compose an original piece in ancient Greek addressing a specific topic. Awards are given in late spring.

Pillinger Prize for Latin Composition: This monetary award is given in memory of Assistant Professor Hugh Edward Pillinger (1965–70). Entrants are asked to translate a selected passage into Latin or compose an original piece in Latin addressing a specific topic. Awards are given in late spring.

OTHER FUNDING OPTIONS

The Graduate School provides additional information helpful to graduate students in need of funding.

Find information about:

Types of funding available (<https://grad.wisc.edu/studentfunding/types>)

How to search for funding (<https://grad.wisc.edu/studentfunding/steps>)

Funding for international students (<https://iss.wisc.edu/students/new-students/funding-scholarships>)

General funding resources on campus (<https://grad.wisc.edu/studentfunding/resources>)

- Center for Jewish Studies (<https://jewishstudies.wisc.edu/students/scholarships>)
- Dana-Allen Dissertation Fellowship (<https://irh.wisc.edu/fellowships/dissertation>)
- Robert J. Reinhold Dissertation Fellowship in Classics (<https://irh.wisc.edu/fellowships/dissertation>)

External funding options (<https://grad.wisc.edu/funding/fellowships>) (includes some prizes & modest awards) (found near the bottom of the page)

- American Association of University Women (<http://www.aauw.org/what-we-do/educational-funding-and-awards>)
- American Council of Learned Societies (<http://www.acls.org/programs/comps>)

- Archaeological Institute of America (<https://www.archaeological.org/grants>)
- Classical Association of the Middle West and South (<https://camws.org/awards>)
- Dolores Zohrab Liebmann Fund (<http://fdnweb.org/liebmann>) (specific to Armenian studies)
- Gorgias Press (<https://www.gorgiaspress.com/awards>)
- Jacob K. Javits Fellowship Program (<https://www2.ed.gov/programs/jacobjavits>) (US Dept of Ed)
- Society for Classical Studies (<https://classicalstudies.org/awards-fellowships>)
- Woodrow Wilson Dissertation Fellowship in Women's Studies (<http://woodrow.org/fellowships/womens-studies>)

Conference presentation funds (<https://grad.wisc.edu/studentfunding/grantscomp/conference>)

RESEARCH TRAVEL AWARDS

Research travel awards (<https://grad.wisc.edu/studentfunding/grantscomp/research>) available through the Graduate School

Albright Institute of Archeological Research (<http://www.aiar.org/available-fellowships>)

American Academy in Rome (<http://www.aarome.org/apply/affiliated-fellowships>)

- Rome Prize (<http://www.aarome.org/apply>)

American Center of Oriental Research (<https://www.acorjordan.org/about-acor-fellowships/#1473242438101-4bc0afd9-e672>)

American Council of Learned Societies (<http://www.acls.org/programs/comps>)

American School of Classical Studies at Athens (<http://www.ascsa.edu.gr/index.php/admission-membership/grants>)

American Schools of Oriental Research (<http://www.asor.org/fellowships/excavation-grants-fellowships>)

Biblical Archaeological Society Dig Scholarships (<http://digs.bib-arch.org/scholarships>)

Chateaubriand Fellowship (<https://www.chateaubriand-fellowship.org>)

Classical Association of the Middle West and South (<https://camws.org/awards>)

German Academic Exchange Service (<https://www.daad.org/en/find-funding>) (DAAD)

Getty Foundation (<http://www.getty.edu/foundation/apply>)

Harvard Society of Fellows (<https://socfell.fas.harvard.edu/about>)

Lady Davis Fellowship Trust (<http://ldft.huji.ac.il>)

The Palestine Exploration Fund (<http://www.pef.org.uk/grants>)

Royal Historical Society (<http://royalhistsoc.org/grants/research-expenses/research-expenses-for-overseas-students-guidelines>)

Marshall & Centenary Fellowships (<http://royalhistsoc.org/grants/marshall-centenary-fellowships>)

Mary Isabel Sibley Fellowship (https://www.pbk.org/WEB/PBK_Member/PROGRAMS/AWARDS___FELLOWSHIPS/Sibley_Fellowship/PBK_Member/Programs/Awards___Fellowships/Sibley_Fellowship.aspx?hkey=fe51c0cb-0859-40c6-965f-665744f69cab)

Society for Classical Studies (<https://classicalstudies.org/awards-fellowships>)

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 36 credits

Minimum Residence Credit Requirement 18 credits

Minimum Graduate Coursework Requirement M.A. named option in Classics: 24 credits out of 36 total credits must be completed in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle>). Of those 24 credits, at least 9 credits must come from each language.

Overall	3.25 GPA required.
Graduate GPA Requirement	
Other Grade Requirements	The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.
Assessments and Examinations	Candidates present the thesis committee a paper, typically of 25–35 double-spaced pages, written under the supervision of the thesis advisor. Candidates take an oral exam and defend the thesis. The completed thesis should be delivered to all three committee members at least two weeks in advance of this oral defense. Upon passing the oral examination, any candidate who wishes to continue to the Ph.D. program must present a formal application to the director of graduate studies before the final department meeting of the spring semester (usually the first Thursday of May). The faculty will then review the application and notify the candidate of their decision by letter. Each application must contain the following materials: A cover letter, a completed graduate student self-report form, copies of all completed exams for the M.A. requirements, and the final version of the master's thesis. A successful candidate for the degree of M.A. who is invited to continue to the Ph.D. program, in addition to fulfilling the requirements for the M.A. degree set out above, will have made good progress in teaching, translation and scholarship.
Language Requirements	The student must pass a sight-reading proficiency examination in: Latin or Greek AND German, French, or Italian

REQUIRED COURSES

Code	Title	Credits
9 credits in Greek above 300 level, choose from:		9
GREEK 401	Greek Drama	
GREEK 402	Greek Drama and Lyric Poetry	
GREEK 505	Elementary Prose Composition	
GREEK 510	Homer	
GREEK 511	Hesiod	
GREEK 512	Greek Lyric Poets	
GREEK 520	Greek Comedy	
GREEK 521	Greek Tragedy	
GREEK 532	Thucydides	
GREEK 541	Plato	
GREEK 551	Attic Orators	
GREEK 560	Hellenistic Greek	
GREEK 564	Plutarch	

GREEK 801	Survey of Greek Literature	
9 credits in Latin above 300 level, choose from:		9
LATIN 505	Elementary Prose Composition	
LATIN 515	Vergil	
LATIN 519	Latin Poetry	
LATIN 520	Roman Drama	
LATIN 521	Roman Elegy	
LATIN 522	Roman Lyric Poetry	
LATIN 523	Roman Satire	
LATIN 524	Roman Novel	
LATIN 539	Latin Historical Writers	
LATIN 549	Latin Philosophical Writers	
LATIN 559	Latin Oratory	
LATIN/ MEDIEVAL 563	Mediaeval Latin	
LATIN 801	Graduate Survey	
6 additional credits in Greek and/or Latin above the 300 level		6
9 additional credits in Greek, Latin or other courses. Non-language courses must be approved by the director of graduate studies.		9
3 credit seminar in Classics, Greek or Latin, choose from:		3
CLASSICS/ HISTORY 801	Seminar-Ancient History	
CLASSICS 900	Advanced Seminar in Theory and Methodology	
CLASSICS/ PHILOS 830	Advanced History of Philosophy	
GREEK 910	Seminar-Poetry	
GREEK 920	Seminar-Drama	
GREEK 930	Seminar-History	
GREEK 970	Seminar-Related Fields	
LATIN 910	Seminar-Poetry	
LATIN 940	Seminar-Philosophy	
LATIN 950	Seminar-Oratory	
Total Credits		36

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

NAMED OPTION-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 9 credits of graduate course work from other institutions. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

With program approval, students are allowed to count no more than 9 credits of course work numbered 300 or above taken as a UW–Madison University Special student. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements. UW–Madison coursework taken as a University Special student would not be allowed to count toward the 50% graduate coursework minimum unless taken at the 700 level or above.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

ADVISOR / COMMITTEE

Candidates form a provisional thesis committee no later than the first week of the semester in which they plan to graduate. The M.A. committee should consist of the thesis advisor (committee chair) and two other faculty members from CANES or affiliated with CANES.

Candidates meet with the thesis committee by the end of the first month in the semester in which they plan to graduate. In order to evaluate the viability of the thesis topic, candidates should submit an abstract of one to two pages to the committee.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

The thesis, written in consultation with the thesis advisor, must be completed no later than two semesters after thesis work begins.

OTHER

All applications received by January 5 are eligible for fellowship, scholarship, and graduate assistantship opportunities. For applications received after the deadline, applicants will not be eligible for university fellowships or scholarships, although

they may be eligible for department funds such as teaching assistantships, project assistantships, research assistantships, or department fellowship.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PEOPLE

FACULTY

For full faculty profiles, visit our website (<https://canes.wisc.edu/faculty>).

William Aylward: Greek and Roman archaeology
Jeffrey Beneker: Biography and historiography; Roman Republic
Jeffrey Blakely: Biblical and ancient Near Eastern archaeology
William Brockliss: Homer; Latin and Greek pedagogy
Alex Dressler: Ancient philosophy; gender and sexuality
Jeremy M. Hutton: Hebrew Bible; Northwest Semitics
Laura McClure: Greek literature; gender and reception studies
J C McKeown: Greek and Roman literature and culture
Grant Nelsestuen: Roman cultural history; Latin prose
Nandini Pandey: Latin poetry; Augustan culture
Vanessa Schmitz-Siebertz: Latin Instructor
Mike Vanden Heuvel: Theater and performance theory

AFFILIATE FACULTY

Nicholas Cahill: Ancient Greek archaeology and art history
Emily Fletcher: Ancient Greek philosophy
Paula Gottlieb: Ancient Greek philosophy; ethics
Daniel Kapust: Roman political thought; rhetoric; political theory
Marc Kleijwegt: Roman and Greek history
Leonora Neville: Roman Empire (the Byzantine Empire) in the 9th-12th centuries
Jordan Rosenblum: Rabbinic Judaism; biblical interpretation; food and religion
Claire Taylor: Greek socio-economic history; Athenian democracy; epigraphic culture

EMERITUS FACULTY

Barry Powell
 Ronald L. Troxel

ACADEMIC STAFF

Bill Bach, Department Administrator
 Toni Landis, Advisor/Student Services Coordinator

CLASSICAL AND ANCIENT NEAR EASTERN STUDIES: HEBREW BIBLE, M.A.

This is a named option within the Classical and Ancient Near Eastern Studies M.A. (p. 290)

Soon after the founding of the University of Wisconsin in 1848, the department was created as one of the first academic units at the university. The Department of Classical and Ancient Near Eastern Studies (CANES) has enjoyed a long tradition of excellence in **philological scholarship, literary criticism, archaeology, and ancient history**. At the graduate level, the department offers the master of arts and doctor of philosophy in classical and ancient near eastern studies. Students may follow one of two courses of study, **classical languages and literatures, or Hebrew bible**.

The **primary goal** of the program is to familiarize students with the **core linguistic, historical, and philological** aspects of classical and ancient near eastern studies. Students also learn to **conduct original research** in such varied areas as *gender studies, literary theory, translation studies, and classical reception* under the guidance of established scholars in these areas.

In addition to specified coursework, students participate in **directed readings** with individual faculty members in their areas of specialization and gain valuable professional experience **teaching** in courses on the languages, literature, and culture of the ancient world. Additional work may be done in allied fields such as *archaeology, art history, linguistics, comparative literature, history, philosophy, and political science*. Affiliated faculty in many of these fields regularly offer courses, supervise theses and dissertations, and participate in department activities.

A wide range of **professional networks** provides graduate students with enhanced opportunities for education and career development. In addition to faculty connections to scholars and institutions in their fields of study, the department has formal affiliations with the Society for Classical Studies, the Classical Association of the Middle West and South, the American School of Classical Studies in Athens, the Society of Biblical Literature, and the American Schools of Oriental Research.

The Pillinger Library and Mansoor Reading Room, both located within the department, provide convenient access to a large number of texts, while the larger Greek and Latin Reading Room in the Memorial Library contains an extensive, noncirculating research collection of texts and commentaries. The Memorial Library maintains an excellent research collection of books and periodicals in classics and Hebrew bible, with many of its resources available online.

ADMISSIONS

Applicants for graduate study may enter the program with either a B.A. or M.A. (M.A., M.Div., Th.M.) degree. For the *Classics* option, candidates are expected to have covered at least the equivalent of an undergraduate major in Classics, which consists of at least three years of both Greek and Latin. For the option in *Hebrew Bible* program, candidates are expected to have taken at least two years of Biblical Hebrew and one year of Greek. Candidates whose preparation falls short of the minimum requirements may be admitted with deficiencies at the discretion of the department, but will be required to do additional work within the first year of the program.

Applications are evaluated on the basis of previous academic record, Graduate Record Exam (GRE) scores, letters of recommendation, the writing sample and a personal statement.

All applicants to the program must apply on-line (<https://apply.grad.wisc.edu/Account/Login?ReturnUrl=%2f>) by January 5. **ONLY select the M.A. application if you plan on a terminal M.A. at UW-Madison; all other applicants select the Ph.D. application even if you have**

not yet received an M.A. *Please note:* the \$75 application fee must be paid at the time of application (international students will be charged an additional \$6 for processing).

As part of the online application process, you will be asked supplemental questions regarding your level of language preparation and expected to **upload** the information listed below:

1. Writing sample of scholarly work no more than 25 pages (optional).
2. Transcripts or academic records from **each** institution attended. You may upload *unofficial* copies for department review. International academic records must be in the original language accompanied by an official English translation. *Please note:* official transcripts will only be requested by the Graduate School upon department recommendation for admission. Further information will be provided upon admission.
3. Official Graduate Record Examination (GRE) (<http://www.gre.org>) score report sent from the Educational Testing Service (ETS). **Use institution code 1846** to route your results to the UW Grad School. Once results are received, they will populate in your online application.
4. TOEFL or MELAB (<https://grad.wisc.edu/admissions/requirements>) for all international applicants.
5. Statement of purpose (citing your reasons for graduate study).
6. Curriculum vitae listing language experience, awards, honors, etc.
7. Three letters of reference. You must submit your *requests* to all three of your references as part of the online application. Recommenders will receive a notice via email and will submit their letters accordingly.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

The Department of Classical and Ancient Near Eastern Studies works to support all graduate students in good standing who continue to make satisfactory progress toward their degree. The department makes every attempt to distribute its resources as fairly as possible outside of guaranteed support offers. Thus, it is the department's intention to give the maximum number of graduate students in the Classics and Hebrew Bible programs an opportunity to hold teaching assistantships (TA) consistent with the department's needs and criteria. It should be remembered that teaching funds are variable, depending on budget and class enrollments. All students are encouraged to pursue opportunities

for support outside the department at all stages of their study. Details can be found below.

TEACHING ASSISTANTSHIPS

Criteria: Teaching assistant appointments will be offered to eligible graduate students on the basis of the following criteria: contractual obligations made to the student, satisfactory progress towards degree, satisfactory student evaluations and faculty teaching observations, departmental judgment of the student's qualification to teach scheduled courses, and availability of budgeted positions.

Eligibility: To be eligible to become a teaching assistant, graduate students should ordinarily meet the following requirements: students should be enrolled in the Classics or Hebrew Bible graduate program (exceptions will be made due to lack of qualified or available students), students should be making satisfactory progress towards an advanced degree, and students should not have exceeded the limited allotment of teaching within the department (five years after the B.A. or three years after the M.A.).

Students who are non-native speakers of English must complete the SPEAK test for assessing English proficiency. The SPEAK test is the institutional version of the Test of Spoken English (TSE), which is administered by the Educational Testing Service. The SPEAK test measures oral proficiency and is frequently used to evaluate the spoken English of international TAs. The test is available only to students holding or under consideration for a teaching assistantship. For information and scheduled tests, please consult the English as a Second Language website (<http://www.english.wisc.edu/esl>). Students must achieve a score of 45 or higher before being placed in the classroom.

Class Assignments: Class assignments are made by the department chair in consultation with department faculty with consideration of the following items in order of importance: previous positive assessment of teaching ability, fair rotation of teaching among qualified graduate students, background and experience of the TA in course materials, the need for graduate students to have a variety of teaching experiences, the preference of the TA, and the preference of the instructor.

Training Program: All TAs are required to attend the department's annual Graduate Student Orientation and Teaching Assistant Workshop. Subjects discussed in the department's annual workshop include preparation, organization, sensitivity to ethnic and gender issues, and pedagogical methods. Experienced TAs are encouraged to share successful teaching methods and ideas with the group in an open discussion. Information is also provided on such university resources as the Writing Center.

New TAs are also required to attend the L&S Teaching Assistant Workshop and the Graduate Assistants Equity Workshop within the first two semesters of teaching appointments. In addition, for TAs with a first-time Comm B appointment, the Writing Across Campus Comm B Training workshop will also be required. TAs are also encouraged to take advantage of the writing workshops offered by the Writing Center at the start of the academic year and throughout each semester.

For each course, the TA must meet with the professor to outline the goals and objectives of the course, the exam and grading procedures, the syllabus and assigned readings, and specific pedagogical methods appropriate for the course. The syllabus of each course should include the name, office number, and phone number, of the supervising professor, the TA, and the current department chair. Should there be concerns about the course that the TA feels unable to address, he or she can refer

students to the professor in charge of the course for initial consultation. Regular meetings between the TA and the professor are held throughout the semester to discuss the progress and success of the course.

Review: Within the first few weeks of class, the supervising professor will observe the TA, with new TAs being a priority. After the visit, the professor will discuss the strengths and weaknesses of the class and put forward a set of recommendations for further teaching development. A written evaluation, to be discussed in person, is then provided to the department chair and will be placed in the student's file. If the chair deems necessary, a second faculty member will make an additional classroom observation with a written evaluation. At the end of each semester or course, student evaluations for the TA classes are to be completed and kept on file in the department for future reference.

Workload/Percentage of Appointment: Teaching assistantship appointments are percentage based. The percentage of appointment is based on the total expected hours of work throughout the course of the semester. For example, a 33% TA would be expected to work a total of 240 hours over the semester, which is roughly 13 hours per week. The CANES department has teaching appointments that range from 33.4% to 50% time depending on the course assigned.

Each TA will receive a breakdown of expected workload with their official appointment letter. The TA is expected to review and discuss the workload with the supervising faculty member of the course. By signing and returning the workload to the department administrator, the TA is accepting his or her appointment for the semester.

Stipend & Benefits: The current pay rate for a full-time beginning TA is about \$31,300 per year. The approximate stipend for a 33.4% position is roughly \$5225 per semester.

All graduate assistantships at or above 33.4% include full tuition remission, a full array of benefits including health insurance, and office space within the department. Spring teaching appointments also carry summer tuition remission.

DEPARTMENTAL TRAVEL SUPPORT

Eligibility Guidelines: The CANES department can provide some funding for Classics students who are presenting a paper addressing a topic in the classics field or interviewing for hire. Applicable conferences include the ASA and CAMWS, but other conferences such as graduate student colloquia will also be considered. First time recipients of this award may be asked to present a departmental Pillinger Talk in preparation for their conference presentation.

All applications for department travel must be supported by satisfactory progress in the student's program. Graduate students may submit one request for travel support to the department per academic year. Every attempt will be made to fund student travel up to a maximum of \$750. Students should recognize that funding is based on availability. The Fellowships Committee will assess the validity of all applications and determine the amount of each individual award if granted.

Before requesting travel funds from the department, graduate students should conduct due diligence to learn about and apply for travel awards offered by other units (Graduate School, ASM, etc.) at UW–Madison and by sponsors of the event for which travel funds are requested. Evidence of awards applied for and/or received should accompany all requests for department travel funding. Being competitive for awards outside the department is a matter of professional development.

Application: Having applied for travel awards and supplements from external sources, students should then petition the CANES department for travel support. All petitions are considered on a case by case basis and evaluated on the basis of academic merit and satisfactory progress in the graduate program.

Petitions should take form of a letter addressed to the chair of the graduate Fellowships Committee detailing the title of the talk, proof of acceptance, the date and place of the conference, and any other relevant information. All petitions should include a budget and should disclose details of awards or denial of funding from other sources.

Awards from other sources will not necessarily disqualify students from classics department funding. The applications will be read and voted on by the committee which will attempt to respond to requests in a timely fashion. The student will be notified in writing by the chair of the committee normally within a few weeks of the submission of application.

Since applications will be read on a rolling basis and funds are usually more plentiful at the beginning of the year, students are encouraged to apply early.

SCHOLARSHIPS & FELLOWSHIPS

Adams-Lemoine Dissertation Fellowship: This fellowship is awarded in memory of C.K. Adams, Professor of Latin & History and University of Wisconsin President from 1892 to 1902, and Fannie Lemoine, Professor of Latin from 1906 to 1923. The Adams-Lemoine Fellowship is utilized for student recruitment or completion of degree. It provides tuition remission, a stipend, and benefits in accordance with published University award amounts. Award periods vary and funding may be available for one or two semesters of study.

Moses S. Slaughter Fellowship: This fellowship is awarded in memory of Moses S. Slaughter, University of Wisconsin Professor of Latin from 1906 to 1923. The Slaughter Fellowship is given to a current or incoming graduate student who maintains **Wisconsin residency**. It provides tuition remission, a stipend, and benefits in accordance with published university award amounts and may supply funding for one or two semesters of study.

Frank R. Kramer Summer Fellowship: A predoctoral summer research grant awarded in memory of Dr. Frank R. Kramer, who earned a B.A. in Humanities in 1929, an M.A. in Greek & Latin in 1931, and a Ph.D. in Classics in 1936. The Kramer Fellowship is meant to enable graduate students in their second year of study or above (pre-dissertation) to receive support for research connected to the advancement of their studies in Classics. Calls for applications typically come out in December and recipients are notified in late January. Award totals range between \$750-\$2,000.

Hieronimus Prize for Greek Composition: This monetary award is given in memory of Professor John Paul Hieronimus (Ph.D. '31). Entrants are asked to translate a selected passage into ancient Greek or compose an original piece in ancient Greek addressing a specific topic. Awards are given in late spring.

Pillinger Prize for Latin Composition: This monetary award is given in memory of Assistant Professor Hugh Edward Pillinger (1965–70). Entrants are asked to translate a selected passage into Latin or compose an original piece in Latin addressing a specific topic. Awards are given in late spring.

OTHER FUNDING OPTIONS

The Graduate School provides additional information helpful to graduate students in need of funding.

Find information about:

Types of funding available (<https://grad.wisc.edu/studentfunding/types>)

How to search for funding (<https://grad.wisc.edu/studentfunding/steps>)

Funding for international students (<https://iss.wisc.edu/students/new-students/funding-scholarships>)

General funding resources on campus (<https://grad.wisc.edu/studentfunding/resources>)

- Center for Jewish Studies (<https://jewishstudies.wisc.edu/students/scholarships>)
- Dana-Allen Dissertation Fellowship (<https://irh.wisc.edu/fellowships/dissertation>)
- Robert J. Reinhold Dissertation Fellowship in Classics (<https://irh.wisc.edu/fellowships/dissertation>)

External funding options (<https://grad.wisc.edu/funding/fellowships>) (includes some prizes & modest awards) (found near the bottom of the page)

- American Association of University Women (<http://www.aauw.org/what-we-do/educational-funding-and-awards>)
- American Council of Learned Societies (<http://www.acls.org/programs/comps>)
- Archaeological Institute of America (<https://www.archaeological.org/grants>)
- Classical Association of the Middle West and South (<https://camws.org/awards>)
- Dolores Zohrab Liebmann Fund (<http://fdnweb.org/liebmann>) (specific to Armenian studies)
- Gorgias Press (<https://www.gorgiaspress.com/awards>)
- Jacob K. Javits Fellowship Program (<https://www2.ed.gov/programs/jacobjavits>) (US Dept of Ed)
- Society for Classical Studies (<https://classicalstudies.org/awards-fellowships>)
- Woodrow Wilson Dissertation Fellowship in Women's Studies (<http://woodrow.org/fellowships/womens-studies>)

Conference presentation funds (<https://grad.wisc.edu/studentfunding/grantscomp/conference>)

RESEARCH TRAVEL AWARDS

Research travel awards (<https://grad.wisc.edu/studentfunding/grantscomp/research>) available through the Graduate School

Albright Institute of Archeological Research (<http://www.aiar.org/available-fellowships>)

American Academy in Rome (<http://www.aarome.org/apply/affiliated-fellowships>)

- Rome Prize (<http://www.aarome.org/apply>)

American Center of Oriental Research (<https://www.acorjordan.org/about-acor-fellowships/#1473242438101-4bc0afd9-e672>)

American Council of Learned Societies (<http://www.acls.org/programs/comps>)

American School of Classical Studies at Athens (<http://www.ascsa.edu.gr/index.php/admission-membership/grants>)

American Schools of Oriental Research (<http://www.asor.org/fellowships/excavation-grants-fellowships>)

Biblical Archaeological Society Dig Scholarships (<http://digs.bib-arch.org/scholarships>)

Chateaubriand Fellowship (<https://www.chateaubriand-fellowship.org>)

Classical Association of the Middle West and South (<https://camws.org/awards>)

German Academic Exchange Service (<https://www.daad.org/en/find-funding>) (DAAD)

Getty Foundation (<http://www.getty.edu/foundation/apply>)

Harvard Society of Fellows (<https://socfell.fas.harvard.edu/about>)

Lady Davis Fellowship Trust (<http://ldft.huji.ac.il>)

The Palestine Exploration Fund (<http://www.pef.org.uk/grants>)

Royal Historical Society (<http://royalhistosoc.org/grants/research-expenses/research-expenses-for-overseas-students-guidelines>)

Marshall & Centenary Fellowships (<http://royalhistosoc.org/grants/marshall-centenary-fellowships>)

Mary Isabel Sibley Fellowship (https://www.pbk.org/WEB/PBK_Member/PROGRAMS/AWARDS___FELLOWSHIPS/Sibley_Fellowship/PBK_Member/Programs/Awards___Fellowships/Sibley_Fellowship.aspx?hkey=fe51c0cb-0859-40c6-965f-665744f69cab)

Society for Classical Studies (<https://classicalstudies.org/awards-fellowships>)

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 36 credits

Minimum Residence Credit Requirement 18 credits

Minimum Graduate Coursework Requirement MA named option in Hebrew Bible: 24 credits out of 36 total credits must be completed in graduate-level language courses within the department; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations M.A. exams are based on coursework and the M.A. Reading List. The exams are given at the end of the final semester of study for the degree, typically at the end of the summer of the second year. An exam can be taken no more than twice.

All M.A. Candidates

Hebrew Texts and Grammar Exam
Translation from Hebrew to English, including some sight passages

Hebrew grammar and syntax (including parsing and producing forms)

Translation from English to pointed Biblical Hebrew
Oral Defense

This exam will include oral reading, translation, and discussion of sight passages, as well as questions calling for synthesis of knowledge learned in course work and readings.

Terminal M.A. Candidates Only

General Exam

M.A. candidates should have a basic familiarity with the history and methodology of biblical studies, especially of the 19th–20th centuries. They should know the main features of the Pentateuchal sources, according to the classical source division. In text criticism, they should demonstrate a familiarity with the major documents used, the methodology of textual criticism, and the history of the masoretic text and the Septuagint. They should be able to identify the masorahs and to explain the meaning of the most common masoretic notes. The exam includes questions on biblical literature and its interpretation; history and archaeology of Israel and the ancient Near East; postbiblical Judaism; Hebrew language, biblical text and canon, and the ancient versions.

Exegetical Presentation

The candidate will prepare an exegetical presentation on a selected passage from the Hebrew Bible in consultation with director of graduate studies.

Language Requirements In addition to coursework in Hebrew and Semitic languages (Aramaic, Ugaritic & Canaanite, Syriac, and Akkadian), M.A. students must pass a proficiency exam in Hebrew.

REQUIRED COURSES

Code	Title	Credits
6 credits across two semesters of Biblical Hebrew. The number of credits depends on the student's preparation		6
6 credits of Semitic language:		6
HEBR-BIB 701	Aramaic I	
HEBR-BIB 702	Aramaic II	
Or		
HEBR-BIB 703	Ugaritic Texts	
HEBR-BIB 704	Canaanite Dialects	
Or		
HEBR-BIB 705	Syriac I	
HEBR-BIB 706	Syriac II	
Or		

HEBR-BIB 700	Advanced Near Eastern Languages (Akkadian I & II)	
12 credits advanced text courses to include two of the following text-based sequences:		12
HEBR-BIB 743	Pentateuchal Narratives	
HEBR-BIB 744	Pentateuchal Legal Codes	
Or		
HEBR-BIB 751	The Book of Isaiah	
HEBR-BIB 752	The Book of Isaiah	
Or		
HEBR-BIB 753	Wisdom Literature: Proverbs and Qohelet	
HEBR-BIB 755	Psalms	
Or		
HEBR-BIB 799	Independent Study (Samuel I & II)	
3 credits in one of the following courses:		3
HEBR-BIB 723	Classical Hebrew Linguistics: Historical and Descriptive	
Or		
CLASSICS/JEWISH 451	Biblical Archaeology	
Or		
3 credits in one graduate level course in the department as approved by the Hebrew Bible director of graduate studies (this may be a 799 or, preferably, an approved course in Classics)		
3 credits in one graduate level course in the department (this may be a 799 or, preferably, an approved course in Classics)		3
3 credits in a CANES Advanced Seminar:		3
CLASSICS 900	Advanced Seminar in Theory and Methodology	
3 credits in one seminar in Hebrew Bible or in a second CANES Advanced Seminar with a different topic than the first		3
Total Credits		36

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

NAMED OPTION-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 9 credits of graduate course work from other institutions. Normally, 6 of these credits will be allocated to fulfilling the Intermediate Hebrew requirement (HEBR-BIB 323 Intermediate Biblical Hebrew, I - HEBR-BIB 324 Intermediate Biblical Hebrew, II). Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

With program approval, no more than 6 credits from a UW–Madison undergraduate degree are allowed to count toward the degree by fulfilling the Intermediate Hebrew requirement (HEBR-BIB 323 Intermediate Biblical Hebrew, I- HEBR-BIB 324 Intermediate Biblical Hebrew, II).

UW–Madison University Special

With program approval, students are allowed to count no more than 9 credits of course work numbered 300 or above taken as a UW–Madison University Special student. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements. UW–Madison coursework taken as a University Special student would not be allowed to count toward the 50% graduate coursework minimum unless taken at the 700 level or above.

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1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

ADVISOR / COMMITTEE

All Hebrew Bible M.A. candidates will meet with the Director of Graduate Studies on a regular basis.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

All applications received by January 5 are eligible for fellowship, scholarship, and graduate assistantship opportunities. For applications received after the deadline, applicants will not be eligible for university fellowships or scholarships, although you may be eligible for department funds such as teaching assistantships, project assistantships, research assistantships, or department fellowship.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

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PEOPLE

FACULTY

For full faculty profiles, visit our website (<https://canes.wisc.edu/faculty>).

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Jeffrey Beneker: Biography and historiography; Roman Republic
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Jeremy M. Hutton: Hebrew Bible; Northwest Semitics
Laura McClure: Greek literature; gender and reception studies
J C McKeown: Greek and Roman literature and culture
Grant Nelsestuen: Roman cultural history; Latin prose
Nandini Pandey: Latin poetry; Augustan culture
Vanessa Schmitz-Siebertz: Latin Instructor
Mike Vanden Heuvel: Theater and performance theory

AFFILIATE FACULTY

Nicholas Cahill: Ancient Greek archaeology and art history
Emily Fletcher: Ancient Greek philosophy
Paula Gottlieb: Ancient Greek philosophy; ethics
Daniel Kapust: Roman political thought; rhetoric; political theory
Marc Kleijwegt: Roman and Greek history
Leonora Neville: Roman Empire (the Byzantine Empire) in the 9th-12th centuries
Jordan Rosenblum: Rabbinic Judaism; biblical interpretation; food and religion
Claire Taylor: Greek socio-economic history; Athenian democracy; epigraphic culture

EMERITUS FACULTY

Barry Powell
 Ronald L. Troxel

ACADEMIC STAFF

Bill Bach, Department Administrator
 Toni Landis, Advisor/Student Services Coordinator

CLASSICAL AND ANCIENT NEAR EASTERN STUDIES, PH.D.

Soon after the founding of the University of Wisconsin in 1848, the department was created as one of the first academic units at the university. The Department of Classical and Ancient Near Eastern Studies (CANES) has enjoyed a long tradition of excellence in **philological scholarship, literary criticism, archaeology, and ancient history**. At the graduate level, the department offers the master of arts and doctor of philosophy in classical and ancient near eastern studies. Students may follow one of two courses of study, **classical languages and literatures (Classics)**, or **Hebrew bible**.

The **primary goal** of the program is to familiarize students with the **core linguistic, historical, and philological** aspects of classical and ancient near eastern studies. Students also learn to **conduct original research** in such varied areas as *gender studies, literary theory, translation studies, and classical reception* under the guidance of established scholars in these areas.

In addition to specified coursework, students participate in **directed readings** with individual faculty members in their areas of specialization and gain valuable professional experience **teaching** in courses on the languages, literature, and culture of the ancient world. Additional work may be done in allied fields such as *archaeology, art history, linguistics, comparative literature, history, philosophy, and political science*. Affiliated faculty in many of these fields regularly offer courses, supervise theses and dissertations, and participate in department activities.

A wide range of **professional networks** provides graduate students with enhanced opportunities for education and career development. In addition to faculty connections to scholars and institutions in their fields of study, the department has formal affiliations with the Society for Classical Studies, the Classical Association of the Middle West and South, the American School of Classical Studies in Athens, the Society of Biblical Literature, and the American Schools of Oriental Research.

The Pillinger Library and Mansoor Reading Room, both located within the department, provide convenient access to a large number of texts, while the larger Greek and Latin Reading Room in the Memorial Library contains an extensive, noncirculating research collection of texts and commentaries. The Memorial Library maintains an excellent research collection of books and periodicals in classics and Hebrew bible, with many of its resources available online.

ADMISSIONS

Students apply to the Ph.D. in Classical and Ancient Near Eastern Studies through one of the named options:

- Classics (p. 312)
- Hebrew Bible (p. 318)

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from

the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

The Department of Classical and Ancient Near Eastern Studies works to support all graduate students in good standing who continue to make satisfactory progress toward their degree. The department makes every attempt to distribute its resources as fairly as possible outside of guaranteed support offers. Thus, it is the department's intention to give the maximum number of graduate students in the Classics and Hebrew Bible programs an opportunity to hold teaching assistantships (TA) consistent with the department's needs and criteria. It should be remembered that teaching funds are variable, depending on budget and class enrollments. All students are encouraged to pursue opportunities for support outside the department at all stages of their study. Details can be found below.

TEACHING ASSISTANTSHIPS

Criteria: Teaching assistant appointments will be offered to eligible graduate students on the basis of the following criteria: contractual obligations made to the student, satisfactory progress towards degree, satisfactory student evaluations and faculty teaching observations, departmental judgment of the student's qualification to teach scheduled courses, and availability of budgeted positions.

Eligibility: To be eligible to become a teaching assistant, graduate students should ordinarily meet the following requirements: students should be enrolled in the Classics or Hebrew Bible graduate program (exceptions will be made due to lack of qualified or available students), students should be making satisfactory progress towards an advanced degree, and students should not have exceeded the limited allotment of teaching within the department (five years after the B.A. or three years after the M.A.).

Students who are non-native speakers of English must complete the SPEAK test for assessing English proficiency. The SPEAK test is the institutional version of the Test of Spoken English (TSE), which is administered by the Educational Testing Service. The SPEAK test measures oral proficiency and is frequently used to evaluate the spoken English of international TAs. The test is available only to students holding or under consideration for a teaching assistantship. For information and scheduled tests, please consult the English as a Second Language website (<http://www.english.wisc.edu/esl>). Students must achieve a score of 45 or higher before being placed in the classroom.

Class Assignments: Class assignments are made by the department chair in consultation with department faculty with consideration of the following items in order of importance: previous positive assessment of teaching ability, fair rotation of teaching among qualified graduate students, background and experience of the TA in course materials, the need for graduate students to have a variety of teaching experiences, the preference of the TA, and the preference of the instructor.

Training Program: All TAs are required to attend the department's annual Graduate Student Orientation and Teaching Assistant Workshop. Subjects discussed in the department's annual workshop include preparation, organization, sensitivity to ethnic and gender issues, and pedagogical methods. Experienced TAs are encouraged to share successful teaching methods and ideas with the group in an open discussion. Information is also provided on such university resources as the Writing Center.

New TAs are also required to attend the L&S Teaching Assistant Workshop and the Graduate Assistants Equity Workshop within the first two semesters of teaching appointments. In addition, for TAs with a first-time Comm B appointment, the Writing Across Campus Comm B Training workshop will also be required. TAs are also encouraged to take advantage of the writing workshops offered by the Writing Center at the start of the academic year and throughout each semester.

For each course, the TA must meet with the professor to outline the goals and objectives of the course, the exam and grading procedures, the syllabus and assigned readings, and specific pedagogical methods appropriate for the course. The syllabus of each course should include the name, office number, and phone number, of the supervising professor, the TA, and the current department chair. Should there be concerns about the course that the TA feels unable to address, he or she can refer students to the professor in charge of the course for initial consultation. Regular meetings between the TA and the professor are held throughout the semester to discuss the progress and success of the course.

Review: Within the first few weeks of class, the supervising professor will observe the TA, with new TAs being a priority. After the visit, the professor will discuss the strengths and weaknesses of the class and put forward a set of recommendations for further teaching development. A written evaluation, to be discussed in person, is then provided to the department chair and will be placed in the student's file. If the chair deems necessary, a second faculty member will make an additional classroom observation with a written evaluation. At the end of each semester or course, student evaluations for the TA classes are to be completed and kept on file in the department for future reference.

Workload/Percentage of Appointment: Teaching assistantship appointments are percentage based. The percentage of appointment is based on the total expected hours of work throughout the course of the semester. For example, a 33% TA would be expected to work a total of 240 hours over the semester, which is roughly 13 hours per week. The CANES department has teaching appointments that range from 33.4% to 50% time depending on the course assigned.

Each TA will receive a breakdown of expected workload with their official appointment letter. The TA is expected to review and discuss the workload with the supervising faculty member of the course. By signing and returning the workload to the department administrator, the TA is accepting his or her appointment for the semester.

Stipend & Benefits: The current pay rate for a full-time beginning TA is about \$31,300 per year. The approximate stipend for a 33.4% position is roughly \$5225 per semester.

All graduate assistantships at or above 33.4% include full tuition remission, a full array of benefits including health insurance, and office space within the department. Spring teaching appointments also carry summer tuition remission.

DEPARTMENTAL TRAVEL SUPPORT

Eligibility Guidelines: The CANES department can provide some funding for Classics students who are presenting a paper addressing a topic in the classics field or interviewing for hire. Applicable conferences include the ASA and CAMWS, but other conferences such as graduate student colloquia will also be considered. First time recipients of this award may be asked to present a departmental Pillinger Talk in preparation for their conference presentation.

All applications for department travel must be supported by satisfactory progress in the student's program. Graduate students may submit one

request for travel support to the department per academic year. Every attempt will be made to fund student travel up to a maximum of \$750. Students should recognize that funding is based on availability. The Fellowships Committee will assess the validity of all applications and determine the amount of each individual award if granted.

Before requesting travel funds from the department, graduate students should conduct due diligence to learn about and apply for travel awards offered by other units (Graduate School, ASM, etc.) at UW–Madison and by sponsors of the event for which travel funds are requested. Evidence of awards applied for and/or received should accompany all requests for department travel funding. Being competitive for awards outside the department is a matter of professional development.

Application: Having applied for travel awards and supplements from external sources, students should then petition the CANES department for travel support. All petitions are considered on a case by case basis and evaluated on the basis of academic merit and satisfactory progress in the graduate program.

Petitions should take form of a letter addressed to the chair of the graduate Fellowships Committee detailing the title of the talk, proof of acceptance, the date and place of the conference, and any other relevant information. All petitions should include a budget and should disclose details of awards or denial of funding from other sources.

Awards from other sources will not necessarily disqualify students from classics department funding. The applications will be read and voted on by the committee which will attempt to respond to requests in a timely fashion. The student will be notified in writing by the chair of the committee normally within a few weeks of the submission of application.

Since applications will be read on a rolling basis and funds are usually more plentiful at the beginning of the year, students are encouraged to apply early.

SCHOLARSHIPS & FELLOWSHIPS

Adams-Lemoine Dissertation Fellowship: This fellowship is awarded in memory of C.K. Adams, Professor of Latin & History and University of Wisconsin President from 1892 to 1902, and Fannie Lemoine, Professor of Latin from 1906 to 1923. The Adams-Lemoine Fellowship is utilized for student recruitment or completion of degree. It provides tuition remission, a stipend, and benefits in accordance with published University award amounts. Award periods vary and funding may be available for one or two semesters of study.

Moses S. Slaughter Fellowship: This fellowship is awarded in memory of Moses S. Slaughter, University of Wisconsin Professor of Latin from 1906 to 1923. The Slaughter Fellowship is given to a current or incoming graduate student who maintains **Wisconsin residency**. It provides tuition remission, a stipend, and benefits in accordance with published university award amounts and may supply funding for one or two semesters of study.

Frank R. Kramer Summer Fellowship: A predoctoral summer research grant awarded in memory of Dr. Frank R. Kramer, who earned a B.A. in Humanities in 1929, an M.A. in Greek & Latin in 1931, and a Ph.D. in Classics in 1936. The Kramer Fellowship is meant to enable graduate students in their second year of study or above (pre-dissertation) to receive support for research connected to the advancement of their studies in Classics. Calls for applications typically come out in December and recipients are notified in late January. Award totals range between \$750-\$2,000.

Hieronimus Prize for Greek Composition: This monetary award is given in memory of Professor John Paul Hieronimus (Ph.D. '31). Entrants are asked to translate a selected passage into ancient Greek or compose an original piece in ancient Greek addressing a specific topic. Awards are given in late spring.

Pillinger Prize for Latin Composition: This monetary award is given in memory of Assistant Professor Hugh Edward Pillinger (1965–70). Entrants are asked to translate a selected passage into Latin or compose an original piece in Latin addressing a specific topic. Awards are given in late spring.

OTHER FUNDING OPTIONS

The Graduate School provides additional information helpful to graduate students in need of funding.

Find information about:

Types of funding available (<https://grad.wisc.edu/studentfunding/types>)

How to search for funding (<https://grad.wisc.edu/studentfunding/steps>)

Funding for international students (<https://iss.wisc.edu/students/new-students/funding-scholarships>)

General funding resources on campus (<https://grad.wisc.edu/studentfunding/resources>)

- Center for Jewish Studies (<https://jewishstudies.wisc.edu/students/scholarships>)
- Dana-Allen Dissertation Fellowship (<https://irh.wisc.edu/fellowships/dissertation>)
- Robert J. Reinhold Dissertation Fellowship in Classics (<https://irh.wisc.edu/fellowships/dissertation>)

External funding options (<https://grad.wisc.edu/funding/fellowships>) (includes some prizes & modest awards) (found near the bottom of the page)

- American Association of University Women (<http://www.aauw.org/what-we-do/educational-funding-and-awards>)
- American Council of Learned Societies (<http://www.acls.org/programs/comps>)
- Archaeological Institute of America (<https://www.archaeological.org/grants>)
- Classical Association of the Middle West and South (<https://camws.org/awards>)
- Dolores Zohrab Liebmann Fund (<http://fdnweb.org/liebmann>) (specific to Armenian studies)
- Gorgias Press (<https://www.gorgiaspress.com/awards>)
- Jacob K. Javits Fellowship Program (<https://www2.ed.gov/programs/jacobjavits>) (US Dept of Ed)
- Society for Classical Studies (<https://classicalstudies.org/awards-fellowships>)
- Woodrow Wilson Dissertation Fellowship in Women's Studies (<http://woodrow.org/fellowships/womens-studies>)

Conference presentation funds (<https://grad.wisc.edu/studentfunding/grantscomp/conference>)

RESEARCH TRAVEL AWARDS

Research travel awards (<https://grad.wisc.edu/studentfunding/grantscomp/research>) available through the Graduate School

Albright Institute of Archeological Research (<http://www.aiar.org/available-fellowships>)

American Academy in Rome (<http://www.aarome.org/apply/affiliated-fellowships>)

- Rome Prize (<http://www.aarome.org/apply>)

American Center of Oriental Research (<https://www.acorjordan.org/about-acor-fellowships/#1473242438101-4bc0afd9-e672>)

American Council of Learned Societies (<http://www.acls.org/programs/comps>)

American School of Classical Studies at Athens (<http://www.ascsa.edu.gr/index.php/admission-membership/grants>)

American Schools of Oriental Research (<http://www.asor.org/fellowships/excavation-grants-fellowships>)

Biblical Archaeological Society Dig Scholarships (<http://digs.bib-arch.org/scholarships>)

Chateaubriand Fellowship (<https://www.chateaubriand-fellowship.org>)

Classical Association of the Middle West and South (<https://camws.org/awards>)

German Academic Exchange Service (<https://www.daad.org/en/find-funding>) (DAAD)

Getty Foundation (<http://www.getty.edu/foundation/apply>)

Harvard Society of Fellows (<https://socfell.fas.harvard.edu/about>)

Lady Davis Fellowship Trust (<http://ldft.huji.ac.il>)

The Palestine Exploration Fund (<http://www.pef.org.uk/grants>)

Royal Historical Society (<http://royalhistsoc.org/grants/research-expenses/research-expenses-for-overseas-students-guidelines>)

Marshall & Centenary Fellowships (<http://royalhistsoc.org/grants/marshall-centenary-fellowships>)

Mary Isabel Sibley Fellowship (https://www.pbk.org/WEB/PBK_Member/PROGRAMS/AWARDS___FELLOWSHIPS/Sibley_Fellowship/PBK_Member/Programs/Awards___Fellowships/Sibley_Fellowship.aspx?hkey=fe51c0cb-0859-40c6-965f-665744f69cab)

Society for Classical Studies (<https://classicalstudies.org/awards-fellowships>)

The department annually offers graduate fellowship support and teaching assistantships. In order for incoming students to be considered for fellowships, applications and all other materials should reach the department by January 5.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

Note: The major is currently non-admitting. Students are admitted through one of the named options (sub-majors) below (p. 310).

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 72 credits

Minimum Residence Credit Requirement 36 credits

Minimum Graduate Coursework Requirement See either the Ph.D. named option in Classics (<https://next-guide.wisc.edu/graduate/classical-ancient-near-eastern-studies/classical-ancient-near-eastern-studies-phd/classical-ancient-near-eastern-studies-classics-phd/#requirementstext>) or Hebrew Bible (<https://next-guide.wisc.edu/graduate/classical-ancient-near-eastern-studies/classical-ancient-near-eastern-studies-phd/classical-ancient-near-eastern-studies-hebrew-bible-phd/#requirementstext>) for the requirement information.

Overall Graduate GPA Requirement See either the Ph.D. named option in Classics (<https://next-guide.wisc.edu/graduate/classical-ancient-near-eastern-studies/classical-ancient-near-eastern-studies-phd/classical-ancient-near-eastern-studies-classics-phd/#requirementstext>) or Hebrew Bible (<https://next-guide.wisc.edu/graduate/classical-ancient-near-eastern-studies/classical-ancient-near-eastern-studies-phd/classical-ancient-near-eastern-studies-hebrew-bible-phd/#requirementstext>) for the requirement information.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations See either the Ph.D. named option in Classics (<https://next-guide.wisc.edu/graduate/classical-ancient-near-eastern-studies/classical-ancient-near-eastern-studies-phd/classical-ancient-near-eastern-studies-classics-phd/#requirementstext>) or Hebrew Bible (<https://next-guide.wisc.edu/graduate/classical-ancient-near-eastern-studies/classical-ancient-near-eastern-studies-phd/classical-ancient-near-eastern-studies-hebrew-bible-phd/#requirementstext>) for the requirement information.

Language Requirements See either the Ph.D. named option in Classics (<https://next-guide.wisc.edu/graduate/classical-ancient-near-eastern-studies/classical-ancient-near-eastern-studies-phd/classical-ancient-near-eastern-studies-classics-phd/#requirementstext>) or Hebrew Bible (<https://next-guide.wisc.edu/graduate/classical-ancient-near-eastern-studies/classical-ancient-near-eastern-studies-phd/classical-ancient-near-eastern-studies-hebrew-bible-phd/#requirementstext>) for the requirement information.

Doctoral Minor / Breadth Requirements All doctoral students are required to complete a minor. Students may not complete a minor with the same name as their named option.

REQUIRED COURSES

Select a Named Option (p. 310) for courses required.

NAMED OPTIONS (SUB-MAJORS)

A named option is a formally documented sub-major within an academic major program. Named options appear on the transcript with degree conferral. Students pursuing the Ph.D. in Classical and Ancient Near Eastern Studies must select one of the following named options:

- Classical and Ancient Near Eastern Studies: Classics, Ph.D. (p. 312)
- Classical and Ancient Near Eastern Studies: Hebrew Bible, Ph.D. (p. 317)

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the

degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 9 credits of graduate course work from other institutions. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

See either the Ph.D. named option in Classics (p. 316) or Hebrew Bible (p. 321) for the policy information.

UW–Madison University Special

With program approval, students are allowed to count no more than 9 credits of course work numbered 300 or above taken as a UW–Madison University Special student. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements. UW–Madison coursework taken as a University Special student would not be allowed to count toward the 50% graduate coursework minimum unless taken at the 700 level or above.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

ADVISOR / COMMITTEE

See either the Ph.D. named option in Classics (p. 316) or Hebrew Bible (p. 321) for the policy information.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within 5 years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

All applications received by Jan. 5 are eligible for fellowship, scholarship, and graduate assistantship opportunities. For applications received after the deadline, applicants will not be eligible for a university fellowships or scholarships, although you may be eligible for department funds such as teaching assistantships, project assistantships, research assistantships, or department fellowship.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Articulates research problems, potentials, and limits with respect to theory, knowledge, or practice in the field of Classics or Hebrew Bible.
2. Formulates ideas, concepts, and approaches beyond the current boundaries of knowledge within Classics or Hebrew Bible.
3. Creates research and scholarship that makes a substantive contribution.
4. Demonstrates breadth within their learning experiences.
5. Advances contributions of Classics or Hebrew Bible to society.
6. Communicates complex ideas in a clear and understandable manner.
7. Fosters ethical and professional conduct.

PEOPLE

FACULTY

For full faculty profiles, visit our website (<https://canes.wisc.edu/faculty>).

William Aylward: Greek and Roman archaeology
Jeffrey Beneker: Biography and historiography; Roman Republic
Jeffrey Blakely: Biblical and ancient Near Eastern archaeology
William Brockliss: Homer; Latin and Greek pedagogy
Alex Dressler: Ancient philosophy; gender and sexuality
Jeremy M. Hutton: Hebrew Bible; Northwest Semitics
Laura McClure: Greek literature; gender and reception studies
J C McKeown: Greek and Roman literature and culture
Grant Nelsestuen: Roman cultural history; Latin prose
Nandini Pandey: Latin poetry; Augustan culture
Vanessa Schmitz-Siebertz: Latin Instructor
Mike Vanden Heuvel: Theater and performance theory

AFFILIATE FACULTY

Nicholas Cahill: Ancient Greek archaeology and art history

Emily Fletcher: Ancient Greek philosophy

Paula Gottlieb: Ancient Greek philosophy; ethics

Daniel Kapust: Roman political thought; rhetoric; political theory

Marc Kleijwegt: Roman and Greek history

Leonora Neville: Roman Empire (the Byzantine Empire) in the 9th-12th centuries

Jordan Rosenblum: Rabbinic Judaism; biblical interpretation; food and religion

Claire Taylor: Greek socio-economic history; Athenian democracy; epigraphic culture

EMERITUS FACULTY

Barry Powell

Ronald L. Troxel

ACADEMIC STAFF

Bill Bach, Department Administrator

Toni Landis, Advisor/Student Services Coordinator

CLASSICAL AND ANCIENT NEAR EASTERN STUDIES: CLASSICS, PH.D.

This is a named option within the Classical and Ancient Near Eastern Studies Ph.D. (p. 290)

Soon after the founding of the University of Wisconsin in 1848, the department was created as one of the first academic units at the university. The Department of Classical and Ancient Near Eastern Studies (CANES) has enjoyed a long tradition of excellence in **philological scholarship, literary criticism, archaeology, and ancient history**. At the graduate level, the department offers the master of arts and doctor of philosophy in classical and ancient near eastern studies. Students may follow one of two courses of study, **classical languages and literatures (Classics)**, or **Hebrew bible**.

The **primary goal** of the program is to familiarize students with the **core linguistic, historical, and philological** aspects of classical and ancient near eastern studies. Students also learn to **conduct original research** in such varied areas as *gender studies, literary theory, translation studies, and classical reception* under the guidance of established scholars in these areas.

In addition to specified coursework, students participate in **directed readings** with individual faculty members in their areas of specialization and gain valuable professional experience **teaching** in courses on the languages, literature, and culture of the ancient world. Additional work may be done in allied fields such as *archaeology, art history, linguistics, comparative literature, history, philosophy, and political science*. Affiliated faculty in many of these fields regularly offer courses, supervise theses and dissertations, and participate in department activities.

A wide range of **professional networks** provides graduate students with enhanced opportunities for education and career development. In addition to faculty connections to scholars and institutions in their fields of study, the department has formal affiliations with the Society for Classical Studies, the Classical Association of the Middle West and

South, the American School of Classical Studies in Athens, the Society of Biblical Literature, and the American Schools of Oriental Research.

The Pillinger Library and Mansoor Reading Room, both located within the department, provide convenient access to a large number of texts, while the larger Greek and Latin Reading Room in the Memorial Library contains an extensive, noncirculating research collection of texts and commentaries. The Memorial Library maintains an excellent research collection of books and periodicals in classics and Hebrew bible, with many of its resources available online.

ADMISSIONS

Applicants for graduate study may enter the program with either a B.A. or M.A. (M.A., M.Div., Th.M.) degree. For the *Classics* option, candidates are expected to have covered at least the equivalent of an undergraduate major in Classics, which consists of at least three years of both Greek and Latin. For the option in *Hebrew Bible* program, candidates are expected to have taken at least two years of Biblical Hebrew and one year of Greek. Candidates whose preparation falls short of the minimum requirements may be admitted with deficiencies at the discretion of the department, but will be required to do additional work within the first year of the program.

Applications are evaluated on the basis of previous academic record, Graduate Record Exam (GRE) scores, letters of recommendation, the writing sample and a personal statement.

All applicants to the program must apply on-line (<https://apply.grad.wisc.edu/Account/Login?ReturnUrl=%2f>) by January 5. **ONLY select the M.A. application if you plan on a terminal M.A. at UW–Madison; all other applicants select the Ph.D. application even if you have not yet received an M.A.** *Please note:* the \$75 application fee must be paid at the time of application (international students will be charged an additional \$6 for processing).

As part of the online application process, you will be asked supplemental questions regarding your level of language preparation and expected to **upload** the information listed below:

1. Writing sample of scholarly work no more than 25 pages (optional).
2. Transcripts or academic records from **each** institution attended. You may upload *unofficial* copies for department review. International academic records must be in the original language accompanied by an official English translation. *Please note:* official transcripts will only be requested by the Graduate School upon department recommendation for admission. Further information will be provided upon admission.
3. Official Graduate Record Examination (GRE) (<http://www.gre.org>) score report sent from the Educational Testing Service (ETS). **Use institution code 1846** to route your results to the UW Grad School. Once results are received, they will populate in your online application.
4. TOEFL or MELAB (<https://grad.wisc.edu/admissions/requirements>) for all international applicants.
5. Statement of purpose (citing your reasons for graduate study).
6. Curriculum vitae listing language experience, awards, honors, etc.
7. Three letters of reference. You must submit your *requests* to all three of your references as part of the online application. Recommenders will receive a notice via email and will submit their letters accordingly.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

The Department of Classical and Ancient Near Eastern Studies works to support all graduate students in good standing who continue to make satisfactory progress toward their degree. The department makes every attempt to distribute its resources as fairly as possible outside of guaranteed support offers. Thus, it is the department's intention to give the maximum number of graduate students in the Classics and Hebrew Bible programs an opportunity to hold teaching assistantships (TA) consistent with the department's needs and criteria. It should be remembered that teaching funds are variable, depending on budget and class enrollments. All students are encouraged to pursue opportunities for support outside the department at all stages of their study. Details can be found below.

TEACHING ASSISTANTSHIPS

Criteria: Teaching assistant appointments will be offered to eligible graduate students on the basis of the following criteria: contractual obligations made to the student, satisfactory progress towards degree, satisfactory student evaluations and faculty teaching observations, departmental judgment of the student's qualification to teach scheduled courses, and availability of budgeted positions.

Eligibility: To be eligible to become a teaching assistant, graduate students should ordinarily meet the following requirements: students should be enrolled in the Classics or Hebrew Bible graduate program (exceptions will be made due to lack of qualified or available students), students should be making satisfactory progress towards an advanced degree, and students should not have exceeded the limited allotment of teaching within the department (five years after the B.A. or three years after the M.A.).

Students who are non-native speakers of English must complete the SPEAK test for assessing English proficiency. The SPEAK test is the institutional version of the Test of Spoken English (TSE), which is administered by the Educational Testing Service. The SPEAK test measures oral proficiency and is frequently used to evaluate the spoken English of international TAs. The test is available only to students holding or under consideration for a teaching assistantship. For information and scheduled tests, please consult the English as a Second Language website (<http://www.english.wisc.edu/esl>). Students must achieve a score of 45 or higher before being placed in the classroom.

Class Assignments: Class assignments are made by the department chair in consultation with department faculty with consideration of the following items in order of importance: previous positive assessment of teaching ability, fair rotation of teaching among qualified graduate students, background and experience of the TA in course materials, the need for graduate students to have a variety of teaching experiences, the preference of the TA, and the preference of the instructor.

Training Program: All TAs are required to attend the department's annual Graduate Student Orientation and Teaching Assistant Workshop. Subjects discussed in the department's annual workshop include preparation, organization, sensitivity to ethnic and gender issues, and pedagogical methods. Experienced TAs are encouraged to share successful teaching methods and ideas with the group in an open discussion. Information is also provided on such university resources as the Writing Center.

New TAs are also required to attend the L&S Teaching Assistant Workshop and the Graduate Assistants Equity Workshop within the first two semesters of teaching appointments. In addition, for TAs with a first-time Comm B appointment, the Writing Across Campus Comm B Training workshop will also be required. TAs are also encouraged to take advantage of the writing workshops offered by the Writing Center at the start of the academic year and throughout each semester.

For each course, the TA must meet with the professor to outline the goals and objectives of the course, the exam and grading procedures, the syllabus and assigned readings, and specific pedagogical methods appropriate for the course. The syllabus of each course should include the name, office number, and phone number, of the supervising professor, the TA, and the current department chair. Should there be concerns about the course that the TA feels unable to address, he or she can refer students to the professor in charge of the course for initial consultation. Regular meetings between the TA and the professor are held throughout the semester to discuss the progress and success of the course.

Review: Within the first few weeks of class, the supervising professor will observe the TA, with new TAs being a priority. After the visit, the professor will discuss the strengths and weaknesses of the class and put forward a set of recommendations for further teaching development. A written evaluation, to be discussed in person, is then provided to the department chair and will be placed in the student's file. If the chair deems necessary, a second faculty member will make an additional classroom observation with a written evaluation. At the end of each semester or course, student evaluations for the TA classes are to be completed and kept on file in the department for future reference.

Workload/Percentage of Appointment: Teaching assistantship appointments are percentage based. The percentage of appointment is based on the total expected hours of work throughout the course of the semester. For example, a 33% TA would be expected to work a total of 240 hours over the semester, which is roughly 13 hours per week. The CANES department has teaching appointments that range from 33.4% to 50% time depending on the course assigned.

Each TA will receive a breakdown of expected workload with their official appointment letter. The TA is expected to review and discuss the workload with the supervising faculty member of the course. By signing and returning the workload to the department administrator, the TA is accepting his or her appointment for the semester.

Stipend & Benefits: The current pay rate for a full-time beginning TA is about \$31,300 per year. The approximate stipend for a 33.4% position is roughly \$5225 per semester.

All graduate assistantships at or above 33.4% include full tuition remission, a full array of benefits including health insurance, and office space within the department. Spring teaching appointments also carry summer tuition remission.

DEPARTMENTAL TRAVEL SUPPORT

Eligibility Guidelines: The CANES department can provide some funding for Classics students who are presenting a paper addressing a topic in the classics field or interviewing for hire. Applicable conferences include the ASA and CAMWS, but other conferences such as graduate student colloquia will also be considered. First time recipients of this award may be asked to present a departmental Pillinger Talk in preparation for their conference presentation.

All applications for department travel must be supported by satisfactory progress in the student's program. Graduate students may submit one request for travel support to the department per academic year. Every attempt will be made to fund student travel up to a maximum of \$750. Students should recognize that funding is based on availability. The Fellowships Committee will assess the validity of all applications and determine the amount of each individual award if granted.

Before requesting travel funds from the department, graduate students should conduct due diligence to learn about and apply for travel awards offered by other units (Graduate School, ASM, etc.) at UW–Madison and by sponsors of the event for which travel funds are requested. Evidence of awards applied for and/or received should accompany all requests for department travel funding. Being competitive for awards outside the department is a matter of professional development.

Application: Having applied for travel awards and supplements from external sources, students should then petition the CANES department for travel support. All petitions are considered on a case by case basis and evaluated on the basis of academic merit and satisfactory progress in the graduate program.

Petitions should take form of a letter addressed to the chair of the graduate Fellowships Committee detailing the title of the talk, proof of acceptance, the date and place of the conference, and any other relevant information. All petitions should include a budget and should disclose details of awards or denial of funding from other sources.

Awards from other sources will not necessarily disqualify students from classics department funding. The applications will be read and voted on by the committee which will attempt to respond to requests in a timely fashion. The student will be notified in writing by the chair of the committee normally within a few weeks of the submission of application.

Since applications will be read on a rolling basis and funds are usually more plentiful at the beginning of the year, students are encouraged to apply early.

SCHOLARSHIPS & FELLOWSHIPS

Adams-Lemoine Dissertation Fellowship: This fellowship is awarded in memory of C.K. Adams, Professor of Latin & History and University of Wisconsin President from 1892 to 1902, and Fannie Lemoine, Professor of Latin from 1906 to 1923. The Adams-Lemoine Fellowship is utilized for student recruitment or completion of degree. It provides tuition remission, a stipend, and benefits in accordance with published University award

amounts. Award periods vary and funding may be available for one or two semesters of study.

Moses S. Slaughter Fellowship: This fellowship is awarded in memory of Moses S. Slaughter, University of Wisconsin Professor of Latin from 1906 to 1923. The Slaughter Fellowship is given to a current or incoming graduate student who maintains **Wisconsin residency**. It provides tuition remission, a stipend, and benefits in accordance with published university award amounts and may supply funding for one or two semesters of study.

Frank R. Kramer Summer Fellowship: A predoctoral summer research grant awarded in memory of Dr. Frank R. Kramer, who earned a B.A. in Humanities in 1929, an M.A. in Greek & Latin in 1931, and a Ph.D. in Classics in 1936. The Kramer Fellowship is meant to enable graduate students in their second year of study or above (pre-dissertation) to receive support for research connected to the advancement of their studies in Classics. Calls for applications typically come out in December and recipients are notified in late January. Award totals range between \$750-\$2,000.

Hieronimus Prize for Greek Composition: This monetary award is given in memory of Professor John Paul Hieronimus (Ph.D. '31). Entrants are asked to translate a selected passage into ancient Greek or compose an original piece in ancient Greek addressing a specific topic. Awards are given in late spring.

Pillinger Prize for Latin Composition: This monetary award is given in memory of Assistant Professor Hugh Edward Pillinger (1965–70). Entrants are asked to translate a selected passage into Latin or compose an original piece in Latin addressing a specific topic. Awards are given in late spring.

OTHER FUNDING OPTIONS

The Graduate School provides additional information helpful to graduate students in need of funding.

Find information about:

Types of funding available (<https://grad.wisc.edu/studentfunding/types>)

How to search for funding (<https://grad.wisc.edu/studentfunding/steps>)

Funding for international students (<https://iss.wisc.edu/students/new-students/funding-scholarships>)

General funding resources on campus (<https://grad.wisc.edu/studentfunding/resources>)

- Center for Jewish Studies (<https://jewishstudies.wisc.edu/students/scholarships>)
- Dana-Allen Dissertation Fellowship (<https://irh.wisc.edu/fellowships/dissertation>)
- Robert J. Reinhold Dissertation Fellowship in Classics (<https://irh.wisc.edu/fellowships/dissertation>)

External funding options (<https://grad.wisc.edu/funding/fellowships>) (includes some prizes & modest awards) (found near the bottom of the page)

- American Association of University Women (<http://www.aauw.org/what-we-do/educational-funding-and-awards>)
- American Council of Learned Societies (<http://www.acls.org/programs/comps>)

- Archaeological Institute of America (<https://www.archaeological.org/grants>)
- Classical Association of the Middle West and South (<https://camws.org/awards>)
- Dolores Zohrab Liebmann Fund (<http://fdnweb.org/liebmann>) (specific to Armenian studies)
- Gorgias Press (<https://www.gorgiaspress.com/awards>)
- Jacob K. Javits Fellowship Program (<https://www2.ed.gov/programs/jacobjavits>) (US Dept of Ed)
- Society for Classical Studies (<https://classicalstudies.org/awards-fellowships>)
- Woodrow Wilson Dissertation Fellowship in Women's Studies (<http://woodrow.org/fellowships/womens-studies>)

Conference presentation funds (<https://grad.wisc.edu/studentfunding/grantscomp/conference>)

RESEARCH TRAVEL AWARDS

Research travel awards (<https://grad.wisc.edu/studentfunding/grantscomp/research>) available through the Graduate School

Albright Institute of Archeological Research (<http://www.aiar.org/available-fellowships>)

American Academy in Rome (<http://www.aarome.org/apply/affiliated-fellowships>)

- Rome Prize (<http://www.aarome.org/apply>)

American Center of Oriental Research (<https://www.acorjordan.org/about-acor-fellowships/#1473242438101-4bc0afd9-e672>)

American Council of Learned Societies (<http://www.acls.org/programs/comps>)

American School of Classical Studies at Athens (<http://www.ascsa.edu.gr/index.php/admission-membership/grants>)

American Schools of Oriental Research (<http://www.asor.org/fellowships/excavation-grants-fellowships>)

Biblical Archaeological Society Dig Scholarships (<http://digs.bib-arch.org/scholarships>)

Chateaubriand Fellowship (<https://www.chateaubriand-fellowship.org>)

Classical Association of the Middle West and South (<https://camws.org/awards>)

German Academic Exchange Service (<https://www.daad.org/en/find-funding>) (DAAD)

Getty Foundation (<http://www.getty.edu/foundation/apply>)

Harvard Society of Fellows (<https://socfell.fas.harvard.edu/about>)

Lady Davis Fellowship Trust (<http://ldft.huji.ac.il>)

The Palestine Exploration Fund (<http://www.pef.org.uk/grants>)

Royal Historical Society (<http://royalhistosoc.org/grants/research-expenses/research-expenses-for-overseas-students-guidelines>)

Marshall & Centenary Fellowships (<http://royalhistosoc.org/grants/marshall-centenary-fellowships>)

Mary Isabel Sibley Fellowship (https://www.pbk.org/WEB/PBK_Member/PROGRAMS/AWARDS___FELLOWSHIPS/Sibley_Fellowship/PBK_Member/Programs/Awards___Fellowships/Sibley_Fellowship.aspx?hkey=fe51c0cb-0859-40c6-965f-665744f69cab)

Society for Classical Studies (<https://classicalstudies.org/awards-fellowships>)

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 72 credits

Minimum Residence Credit Requirement 36 credits

Minimum Graduate Coursework Requirement In addition to requirements for the M.A., 36 credits out of 72 total credits must be completed in a combination of graduate seminars and departmental courses specifically designed for graduate students. Courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.

Overall Graduate GPA Requirement	3.25 GPA required.
Other Grade Requirements	The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.
Assessments and Examinations	<ul style="list-style-type: none"> • Proficiency examination in Latin, Greek, and German • Proficiency examination in either French or Italian • Proficiency examination in Ancient History • 4 Preliminary Examinations <ul style="list-style-type: none"> *Greek literature, Latin literature, Greek author, Latin author <p>Planning: Candidates should begin making arrangements for the preliminary examinations early in the program. Within a semester after passing the M.A., candidates should tentatively select special authors and make arrangements with the Director of Graduate Studies to supervise their course of study.</p> <p>Executing: Preliminary examinations are offered during the academic year, near the end of the fall and spring semesters and are taken two or three years after entering the Ph.D. program. The candidate should complete all the preliminary examinations in two to three consecutive semesters (all four examinations may be completed in the same semester, but is generally not recommended).</p>
Language Requirements	The student must pass a sight-reading proficiency examination in Latin, Greek, and German. A sight-reading proficiency examination in French or Italian must also be passed before beginning work on the dissertation. Exams from the M.A. may be counted toward this requirement.
Doctoral Minor/Breadth Requirements	All doctoral students are required to complete a minor. Students may not complete a minor with the same name as their named option.

REQUIRED COURSES

PH.D. NAMED OPTION IN CLASSICS

Code	Title	Credits
3 credits in Classical Archaeology/Art History		3
CLASSICS/ ART HIST 700	The Art and Archaeology of Ancient Greece	
Or		
CLASSICS/ ART HIST 704	The Art and Archaeology of Ancient Rome	
3 credits Latin Prose Composition		3
LATIN 505	Elementary Prose Composition	
3 credits Greek Prose Composition		3
GREEK 505	Elementary Prose Composition	
12 additional credits in Greek and/or Latin. Non-language courses in related fields must be approved by Director of Graduate Studies		12
12 credits from four seminars		12

1. Ancient History

CLASSICS/ HISTORY 801	Seminar-Ancient History
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2. Greek, one of the following:

GREEK 910	Seminar-Poetry
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GREEK 920	Seminar-Drama
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GREEK 930	Seminar-History
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GREEK 970	Seminar-Related Fields
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3. Latin, one of the following:

LATIN 910	Seminar-Poetry
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LATIN 940	Seminar-Philosophy
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LATIN 950	Seminar-Oratory
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4. One additional seminar chosen in consultation with the Director of Graduate Studies

3 credits CANES Advanced Seminar		3
CLASSICS 900	Advanced Seminar in Theory and Methodology	
Total Credits		36

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

NAMED OPTION-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 9 credits of graduate course work from other institutions. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

With program approval, students are allowed to count no more than 9 credits of course work numbered 300 or above taken as a UW–Madison University Special student. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements. UW–Madison coursework taken as a University Special student would not be allowed to count toward the 50% graduate coursework minimum unless taken at the 700 level or above.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

ADVISOR / COMMITTEE

Candidates for the Ph.D. should form a provisional dissertation committee the semester before they intend to complete their last preliminary exam and reach dissertator status. This committee should consist of at least four members representing more than one graduate program, three of whom must be UW–Madison graduate faculty or former UW–Madison graduate faculty up to one year after resignation or retirement. At least one of the four members must be from outside of the student's major program or major field (often from the minor field).

During the first semester of dissertator status, candidates will schedule a dissertation proposal defense to discuss the proposal's viability. Under the guidance of their dissertation advisor, candidates will provide all committee members with a detailed abstract of the proposed dissertation, including a synopsis of each chapter and a timeline for scheduled completion. After the provisional committee has approved the proposal, the candidate may begin writing in consultation with their committee.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within 5 years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

All applications received by January 5 are eligible for fellowship, scholarship, and graduate assistantship opportunities. For applications received after the deadline, applicants will not be eligible for university fellowships or scholarships, although they may be eligible for department funds such as teaching

assistantships, project assistantships, research assistantships, or department fellowship.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PEOPLE

FACULTY

For full faculty profiles, visit our website (<https://canes.wisc.edu/faculty>).

William Aylward: Greek and Roman archaeology
Jeffrey Beneker: Biography and historiography; Roman Republic
Jeffrey Blakely: Biblical and ancient Near Eastern archaeology
William Brockliss: Homer; Latin and Greek pedagogy
Alex Dressler: Ancient philosophy; gender and sexuality
Jeremy M. Hutton: Hebrew Bible; Northwest Semitics
Laura McClure: Greek literature; gender and reception studies
J C McKeown: Greek and Roman literature and culture
Grant Nelsestuen: Roman cultural history; Latin prose
Nandini Pandey: Latin poetry; Augustan culture
Vanessa Schmitz-Siebertz: Latin Instructor
Mike Vanden Heuvel: Theater and performance theory

AFFILIATE FACULTY

Nicholas Cahill: Ancient Greek archaeology and art history
Emily Fletcher: Ancient Greek philosophy
Paula Gottlieb: Ancient Greek philosophy; ethics
Daniel Kapust: Roman political thought; rhetoric; political theory
Marc Kleijwegt: Roman and Greek history
Leonora Neville: Roman Empire (the Byzantine Empire) in the 9th-12th centuries
Jordan Rosenblum: Rabbinic Judaism; biblical interpretation; food and religion
Claire Taylor: Greek socio-economic history; Athenian democracy; epigraphic culture

EMERITUS FACULTY

Barry Powell
 Ronald L. Troxel

ACADEMIC STAFF

Bill Bach, Department Administrator
 Toni Landis, Advisor/Student Services Coordinator

CLASSICAL AND ANCIENT NEAR EASTERN STUDIES: HEBREW BIBLE, PH.D.

This is a named option within the Classical and Ancient Near Eastern Studies Ph.D. (p. 290)

Soon after the founding of the University of Wisconsin in 1848, the department was created as one of the first academic units at the university. The Department of Classical and Ancient Near Eastern Studies (CANES) has enjoyed a long tradition of excellence in **philological scholarship, literary criticism, archaeology, and ancient history**. At the graduate level, the department offers the master of arts and doctor of philosophy in classical and ancient near eastern studies. Students may follow one of two courses of study, **classical languages and literatures (Classics)**, or **Hebrew bible**.

The **primary goal** of the program is to familiarize students with the **core linguistic, historical, and philological** aspects of classical and ancient near eastern studies. Students also learn to **conduct original research** in such varied areas as *gender studies, literary theory, translation studies, and classical reception* under the guidance of established scholars in these areas.

In addition to specified coursework, students participate in **directed readings** with individual faculty members in their areas of specialization and gain valuable professional experience **teaching** in courses on the languages, literature, and culture of the ancient world. Additional work may be done in allied fields such as *archaeology, art history, linguistics, comparative literature, history, philosophy, and political science*. Affiliated faculty in many of these fields regularly offer courses, supervise theses and dissertations, and participate in department activities.

A wide range of **professional networks** provides graduate students with enhanced opportunities for education and career development. In addition to faculty connections to scholars and institutions in their fields of study, the department has formal affiliations with the Society for Classical Studies, the Classical Association of the Middle West and South, the American School of Classical Studies in Athens, the Society of Biblical Literature, and the American Schools of Oriental Research.

The Pillinger Library and Mansoor Reading Room, both located within the department, provide convenient access to a large number of texts, while the larger Greek and Latin Reading Room in the Memorial Library contains an extensive, noncirculating research collection of texts and commentaries. The Memorial Library maintains an excellent research collection of books and periodicals in classics and Hebrew bible, with many of its resources available online.

ADMISSIONS

Applicants for graduate study may enter the program with either a B.A. or M.A. (M.A., M.Div., Th.M.) degree. For the *Classics* option, candidates are expected to have covered at least the equivalent of an undergraduate major in Classics, which consists of at least three years of both Greek and Latin. For the option in *Hebrew Bible* program, candidates are expected to have taken at least two years of Biblical Hebrew and one year of Greek. Candidates whose preparation falls short of the minimum requirements may be admitted with deficiencies at the discretion of the department, but will be required to do additional work within the first year of the program.

Applications are evaluated on the basis of previous academic record, Graduate Record Exam (GRE) scores, letters of recommendation, the writing sample and a personal statement.

All applicants to the program must apply on-line (<https://apply.grad.wisc.edu/Account/Login?ReturnUrl=%2f>) by January 5. **ONLY select the M.A. application if you plan on a terminal M.A. at UW-Madison; all other applicants select the Ph.D. application even if you have**

not yet received an M.A. *Please note:* the \$75 application fee must be paid at the time of application (international students will be charged an additional \$6 for processing).

As part of the online application process, you will be asked supplemental questions regarding your level of language preparation and expected to **upload** the information listed below:

1. Writing sample of scholarly work no more than 25 pages (optional).
2. Transcripts or academic records from **each** institution attended. You may upload *unofficial* copies for department review. International academic records must be in the original language accompanied by an official English translation. *Please note:* official transcripts will only be requested by the Graduate School upon department recommendation for admission. Further information will be provided upon admission.
3. Official Graduate Record Examination (GRE) (<http://www.gre.org>) score report sent from the Educational Testing Service (ETS). **Use institution code 1846** to route your results to the UW Grad School. Once results are received, they will populate in your online application.
4. TOEFL or MELAB (<https://grad.wisc.edu/admissions/requirements>) for all international applicants.
5. Statement of purpose (citing your reasons for graduate study).
6. Curriculum vitae listing language experience, awards, honors, etc.
7. Three letters of reference. You must submit your *requests* to all three of your references as part of the online application. Recommenders will receive a notice via email and will submit their letters accordingly.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

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Eligibility: To be eligible to become a teaching assistant, graduate students should ordinarily meet the following requirements: students should be enrolled in the Classics or Hebrew Bible graduate program (exceptions will be made due to lack of qualified or available students), students should be making satisfactory progress towards an advanced degree, and students should not have exceeded the limited allotment of teaching within the department (five years after the B.A. or three years after the M.A.).

Students who are non-native speakers of English must complete the SPEAK test for assessing English proficiency. The SPEAK test is the institutional version of the Test of Spoken English (TSE), which is administered by the Educational Testing Service. The SPEAK test measures oral proficiency and is frequently used to evaluate the spoken English of international TAs. The test is available only to students holding or under consideration for a teaching assistantship. For information and scheduled tests, please consult the English as a Second Language website (<http://www.english.wisc.edu/esl>). Students must achieve a score of 45 or higher before being placed in the classroom.

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Training Program: All TAs are required to attend the department's annual Graduate Student Orientation and Teaching Assistant Workshop. Subjects discussed in the department's annual workshop include preparation, organization, sensitivity to ethnic and gender issues, and pedagogical methods. Experienced TAs are encouraged to share successful teaching methods and ideas with the group in an open discussion. Information is also provided on such university resources as the Writing Center.

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For each course, the TA must meet with the professor to outline the goals and objectives of the course, the exam and grading procedures, the syllabus and assigned readings, and specific pedagogical methods appropriate for the course. The syllabus of each course should include the name, office number, and phone number, of the supervising professor, the TA, and the current department chair. Should there be concerns about the course that the TA feels unable to address, he or she can refer

students to the professor in charge of the course for initial consultation. Regular meetings between the TA and the professor are held throughout the semester to discuss the progress and success of the course.

Review: Within the first few weeks of class, the supervising professor will observe the TA, with new TAs being a priority. After the visit, the professor will discuss the strengths and weaknesses of the class and put forward a set of recommendations for further teaching development. A written evaluation, to be discussed in person, is then provided to the department chair and will be placed in the student's file. If the chair deems necessary, a second faculty member will make an additional classroom observation with a written evaluation. At the end of each semester or course, student evaluations for the TA classes are to be completed and kept on file in the department for future reference.

Workload/Percentage of Appointment: Teaching assistantship appointments are percentage based. The percentage of appointment is based on the total expected hours of work throughout the course of the semester. For example, a 33% TA would be expected to work a total of 240 hours over the semester, which is roughly 13 hours per week. The CANES department has teaching appointments that range from 33.4% to 50% time depending on the course assigned.

Each TA will receive a breakdown of expected workload with their official appointment letter. The TA is expected to review and discuss the workload with the supervising faculty member of the course. By signing and returning the workload to the department administrator, the TA is accepting his or her appointment for the semester.

Stipend & Benefits: The current pay rate for a full-time beginning TA is about \$31,300 per year. The approximate stipend for a 33.4% position is roughly \$5225 per semester.

All graduate assistantships at or above 33.4% include full tuition remission, a full array of benefits including health insurance, and office space within the department. Spring teaching appointments also carry summer tuition remission.

DEPARTMENTAL TRAVEL SUPPORT

Eligibility Guidelines: The CANES department can provide some funding for Classics students who are presenting a paper addressing a topic in the classics field or interviewing for hire. Applicable conferences include the ASA and CAMWS, but other conferences such as graduate student colloquia will also be considered. First time recipients of this award may be asked to present a departmental Pillinger Talk in preparation for their conference presentation.

All applications for department travel must be supported by satisfactory progress in the student's program. Graduate students may submit one request for travel support to the department per academic year. Every attempt will be made to fund student travel up to a maximum of \$750. Students should recognize that funding is based on availability. The Fellowships Committee will assess the validity of all applications and determine the amount of each individual award if granted.

Before requesting travel funds from the department, graduate students should conduct due diligence to learn about and apply for travel awards offered by other units (Graduate School, ASM, etc.) at UW-Madison and by sponsors of the event for which travel funds are requested. Evidence of awards applied for and/or received should accompany all requests for department travel funding. Being competitive for awards outside the department is a matter of professional development.

Application: Having applied for travel awards and supplements from external sources, students should then petition the CANES department for travel support. All petitions are considered on a case by case basis and evaluated on the basis of academic merit and satisfactory progress in the graduate program.

Petitions should take form of a letter addressed to the chair of the graduate Fellowships Committee detailing the title of the talk, proof of acceptance, the date and place of the conference, and any other relevant information. All petitions should include a budget and should disclose details of awards or denial of funding from other sources.

Awards from other sources will not necessarily disqualify students from classics department funding. The applications will be read and voted on by the committee which will attempt to respond to requests in a timely fashion. The student will be notified in writing by the chair of the committee normally within a few weeks of the submission of application.

Since applications will be read on a rolling basis and funds are usually more plentiful at the beginning of the year, students are encouraged to apply early.

SCHOLARSHIPS & FELLOWSHIPS

Adams-Lemoine Dissertation Fellowship: This fellowship is awarded in memory of C.K. Adams, Professor of Latin & History and University of Wisconsin President from 1892 to 1902, and Fannie Lemoine, Professor of Latin from 1906 to 1923. The Adams-Lemoine Fellowship is utilized for student recruitment or completion of degree. It provides tuition remission, a stipend, and benefits in accordance with published University award amounts. Award periods vary and funding may be available for one or two semesters of study.

Moses S. Slaughter Fellowship: This fellowship is awarded in memory of Moses S. Slaughter, University of Wisconsin Professor of Latin from 1906 to 1923. The Slaughter Fellowship is given to a current or incoming graduate student who maintains **Wisconsin residency**. It provides tuition remission, a stipend, and benefits in accordance with published university award amounts and may supply funding for one or two semesters of study.

Frank R. Kramer Summer Fellowship: A predoctoral summer research grant awarded in memory of Dr. Frank R. Kramer, who earned a B.A. in Humanities in 1929, an M.A. in Greek & Latin in 1931, and a Ph.D. in Classics in 1936. The Kramer Fellowship is meant to enable graduate students in their second year of study or above (pre-dissertation) to receive support for research connected to the advancement of their studies in Classics. Calls for applications typically come out in December and recipients are notified in late January. Award totals range between \$750-\$2,000.

Hieronimus Prize for Greek Composition: This monetary award is given in memory of Professor John Paul Hieronimus (Ph.D. '31). Entrants are asked to translate a selected passage into ancient Greek or compose an original piece in ancient Greek addressing a specific topic. Awards are given in late spring.

Pillinger Prize for Latin Composition: This monetary award is given in memory of Assistant Professor Hugh Edward Pillinger (1965–70). Entrants are asked to translate a selected passage into Latin or compose an original piece in Latin addressing a specific topic. Awards are given in late spring.

OTHER FUNDING OPTIONS

The Graduate School provides additional information helpful to graduate students in need of funding.

Find information about:

Types of funding available (<https://grad.wisc.edu/studentfunding/types>)

How to search for funding (<https://grad.wisc.edu/studentfunding/steps>)

Funding for international students (<https://iss.wisc.edu/students/new-students/funding-scholarships>)

General funding resources on campus (<https://grad.wisc.edu/studentfunding/resources>)

- Center for Jewish Studies (<https://jewishstudies.wisc.edu/students/scholarships>)
- Dana-Allen Dissertation Fellowship (<https://irh.wisc.edu/fellowships/dissertation>)
- Robert J. Reinhold Dissertation Fellowship in Classics (<https://irh.wisc.edu/fellowships/dissertation>)

External funding options (<https://grad.wisc.edu/funding/fellowships>) (includes some prizes & modest awards) (found near the bottom of the page)

- American Association of University Women (<http://www.aauw.org/what-we-do/educational-funding-and-awards>)
- American Council of Learned Societies (<http://www.acls.org/programs/comps>)
- Archaeological Institute of America (<https://www.archaeological.org/grants>)
- Classical Association of the Middle West and South (<https://camws.org/awards>)
- Dolores Zohrab Liebmann Fund (<http://fdnweb.org/liebmann>) (specific to Armenian studies)
- Gorgias Press (<https://www.gorgiaspress.com/awards>)
- Jacob K. Javits Fellowship Program (<https://www2.ed.gov/programs/jacobjavits>) (US Dept of Ed)
- Society for Classical Studies (<https://classicalstudies.org/awards-fellowships>)
- Woodrow Wilson Dissertation Fellowship in Women's Studies (<http://woodrow.org/fellowships/womens-studies>)

Conference presentation funds (<https://grad.wisc.edu/studentfunding/grantscomp/conference>)

RESEARCH TRAVEL AWARDS

Research travel awards (<https://grad.wisc.edu/studentfunding/grantscomp/research>) available through the Graduate School

Albright Institute of Archeological Research (<http://www.aiar.org/available-fellowships>)

American Academy in Rome (<http://www.aarome.org/apply/affiliated-fellowships>)

- Rome Prize (<http://www.aarome.org/apply>)

American Center of Oriental Research (<https://www.acorjordan.org/about-acor-fellowships/#1473242438101-4bc0afd9-e672>)

American Council of Learned Societies (<http://www.acls.org/programs/comps>)

American School of Classical Studies at Athens (<http://www.ascsa.edu.gr/index.php/admission-membership/grants>)

American Schools of Oriental Research (<http://www.asor.org/fellowships/excavation-grants-fellowships>)

Biblical Archaeological Society Dig Scholarships (<http://digs.bib-arch.org/scholarships>)

Chateaubriand Fellowship (<https://www.chateaubriand-fellowship.org>)

Classical Association of the Middle West and South (<https://camws.org/awards>)

German Academic Exchange Service (<https://www.daad.org/en/find-funding>) (DAAD)

Getty Foundation (<http://www.getty.edu/foundation/apply>)

Harvard Society of Fellows (<https://socfell.fas.harvard.edu/about>)

Lady Davis Fellowship Trust (<http://ldft.huji.ac.il>)

The Palestine Exploration Fund (<http://www.pef.org.uk/grants>)

Royal Historical Society (<http://royalhistsoc.org/grants/research-expenses/research-expenses-for-overseas-students-guidelines>)

Marshall & Centenary Fellowships (<http://royalhistsoc.org/grants/marshall-centenary-fellowships>)

Mary Isabel Sibley Fellowship (https://www.pbk.org/WEB/PBK_Member/PROGRAMS/AWARDS___FELLOWSHIPS/Sibley_Fellowship/PBK_Member/Programs/Awards___Fellowships/Sibley_Fellowship.aspx?hkey=fe51c0cb-0859-40c6-965f-665744f69cab)

Society for Classical Studies (<https://classicalstudies.org/awards-fellowships>)

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules.

Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum 72 credits

Credit Requirement

Minimum 36 credits

Residence

Credit

Requirement

Minimum Graduate Coursework Requirement Including requirements for the M.A., 54 credits out of 72 total credits must be completed in a combination of graduate seminars and departmental courses specifically designed for graduate students. Courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations • Reading competency in German and French or Modern Hebrew (by exam)

• Proficiency in Biblical Hebrew by exam, to include:

Translation of passages, together with textual and philological notes, and consultation of the Septuagint, Targum, and Peshitta.

Grammatical parsing, pointing of unpointed texts, production of forms.

Discussion of Biblical Hebrew in its Semitic context, translation of Hebrew epigraphic texts (in Paleo-Hebrew script), together with discussion of problems they present.

• Proficiency in Semitic languages by exam, to include:

Translation of texts written in Canaanite dialects, Ugaritic, Aramaic, Syriac, and Akkadian. Some of the texts will be read in Semitics courses; other texts must be prepared independently.

• General Exam, based on reading list and coursework

Language Requirements Students must demonstrate reading competency in German and either French or Modern Hebrew. Students must demonstrate proficiency in Hebrew and Semitic languages by exam.

Doctoral Minor/Breadth Requirements All doctoral students are required to complete a minor. Students may not complete a minor with the same name as their named option.

REQUIRED COURSES

Code	Title	Credits
12 credits of Semitic language not taken for M.A. or Upper-level Classical language, choose from:		
HEBR-BIB 701	Aramaic I	12
HEBR-BIB 702	Aramaic II	
Or		
HEBR-BIB 703	Ugaritic Texts	
HEBR-BIB 704	Canaanite Dialects	
Or		
HEBR-BIB 705	Syriac I	
HEBR-BIB 706	Syriac II	
Or		
HEBR-BIB 700	Advanced Near Eastern Languages (Akkadian I & II)	
Or		
A maximum of 6 credits of Greek at Intermediate level (300 and above) or higher. Other languages may be taken with approval.		
6 credits of advanced text sequence not taken for M.A., choose from:		
HEBR-BIB 743	Pentateuchal Narratives	6
HEBR-BIB 744	Pentateuchal Legal Codes	
Or		
HEBR-BIB 751	The Book of Isaiah	
HEBR-BIB 752	The Book of Isaiah	
Or		
HEBR-BIB 754	Wisdom Literature: Job	
HEBR-BIB 755	Psalms	
Or		
HEBR-BIB 799	Independent Study (Samuel I & II)	
6 credits not taken for M.A., choose from:		
CLASSICS/JEWISH 452	Biblical Archaeology	6
HEBR-BIB 723	Classical Hebrew Linguistics: Historical and Descriptive	
3 credits in one graduate-level course in the department as approved by the Hebrew Bible director of graduate studies (this may be a 799 or, preferably, an approved course in Classics).		
9 credits in three graduate level courses approved by director of graduate studies ("Minor courses")		
3 credits from one seminar		
CLASSICS 900	Advanced Seminar in Theory and Methodology	3
Or		

HEBR-BIB 951 Seminar-Biblical Studies

Total Credits

36

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

NAMED OPTION-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 9 credits of graduate course work from other institutions. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

With program approval, no more than 6 credits from a UW–Madison undergraduate degree are allowed to count toward the degree by fulfilling the Intermediate Hebrew requirement (HEBR-BIB 323 Intermediate Biblical Hebrew, I-HEBR-BIB 324 Intermediate Biblical Hebrew, II).

UW–Madison University Special

With program approval, students are allowed to count no more than 9 credits of course work numbered 300 or above taken as a UW–Madison University Special student. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements. UW–Madison coursework taken as a University Special student would not be allowed to count toward the 50% graduate coursework minimum unless taken at the 700 level or above.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

ADVISOR / COMMITTEE

Candidates for the Ph.D. should form a provisional dissertation committee the semester before they intend to complete their last preliminary exam and reach dissertator status. This committee should consist of a dissertation advisor and at least two additional faculty advisors.

During the first semester of dissertator status, candidates will schedule a dissertation proposal defense to discuss the proposal's viability. Under the guidance of their dissertation advisor, candidates will provide all committee members with a detailed abstract of the proposed dissertation, including a synopsis of each chapter and a timeline for scheduled completion. After the provisional committee has approved the proposal, the candidate may begin writing in consultation with their committee.

The final composition of the dissertation committee must have at least four members representing more than one graduate program, three of whom must be UW–Madison graduate faculty or former UW–Madison graduate faculty up to one year after resignation or retirement. At least one of the four members must be from outside of the student's major program or major field (often from the minor field). Once the dissertation has been completed and approved by the dissertation advisor, the candidate will distribute the final document to all committee members at least four weeks before the anticipated defense date. If the committee supports the dissertation, the advisor will set a date for the oral defense. Dissertation defenses will be scheduled for the academic year only. Graduate students may not hold a dissertation fellowship in any semester following the semester of their defense, regardless of whether or not they have filed their thesis for graduation.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

All applications received by January 5 are eligible for fellowship, scholarship, and graduate assistantship opportunities. For applications received after the deadline, applicants will not be eligible for university fellowships or scholarships, although you may be eligible for department funds such as teaching assistantships, project assistantships, research assistantships, or department fellowship.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PEOPLE

FACULTY

For full faculty profiles, visit our website (<https://canes.wisc.edu/faculty>).

William Aylward: Greek and Roman archaeology
Jeffrey Beneker: Biography and historiography; Roman Republic
Jeffrey Blakely: Biblical and ancient Near Eastern archaeology
William Brockliss: Homer; Latin and Greek pedagogy
Alex Dressler: Ancient philosophy; gender and sexuality
Jeremy M. Hutton: Hebrew Bible; Northwest Semitics
Laura McClure: Greek literature; gender and reception studies
J C McKeown: Greek and Roman literature and culture
Grant Nelsestuen: Roman cultural history; Latin prose
Nandini Pandey: Latin poetry; Augustan culture
Vanessa Schmitz-Siebertz: Latin Instructor
Mike Vanden Heuvel: Theater and performance theory

AFFILIATE FACULTY

Nicholas Cahill: Ancient Greek archaeology and art history
Emily Fletcher: Ancient Greek philosophy
Paula Gottlieb: Ancient Greek philosophy; ethics
Daniel Kapust: Roman political thought; rhetoric; political theory
Marc Kleijwegt: Roman and Greek history
Leonora Neville: Roman Empire (the Byzantine Empire) in the 9th-12th centuries
Jordan Rosenblum: Rabbinic Judaism; biblical interpretation; food and religion
Claire Taylor: Greek socio-economic history; Athenian democracy; epigraphic culture

EMERITUS FACULTY

Barry Powell
 Ronald L. Troxel

ACADEMIC STAFF

Bill Bach, Department Administrator
 Toni Landis, Advisor/Student Services Coordinator

CLASSICS, DOCTORAL MINOR

12 credits in Greek and Latin courses beyond the elementary level.

All Graduate School requirements for minors (<https://grad.wisc.edu/acadpolicy/?policy=minors>) must be met.

Please contact the graduate coordinator for more information.

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EMERITUS FACULTY

Barry Powell
 Ronald L. Troxel

ACADEMIC STAFF

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GREEK, DOCTORAL MINOR

9 credits in Greek courses beyond the elementary level.

All Graduate School requirements for minors (<https://grad.wisc.edu/acadpolicy/?policy=minors>) must be met.

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EMERITUS FACULTY

Barry Powell
 Ronald L. Troxel

ACADEMIC STAFF

Bill Bach, Department Administrator
 Toni Landis, Advisor/Student Services Coordinator

HEBREW BIBLE, DOCTORAL MINOR

REQUIREMENTS

9 credits in Biblical Hebrew courses beyond the elementary level.

All Graduate School requirements for minors (<https://grad.wisc.edu/acadpolicy/?policy=minors>) must be met.

Please contact the graduate coordinator for more information.

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EMERITUS FACULTY

Barry Powell

Ronald L. Troxel

ACADEMIC STAFF

Bill Bach, Department Administrator

Toni Landis, Advisor/Student Services Coordinator

LATIN, DOCTORAL MINOR

9 credits in Latin courses beyond the elementary level.

All Graduate School requirements for minors (<https://grad.wisc.edu/acadpolicy/?policy=minors>) must be met.

Contact the Graduate Coordinator for more information.

PEOPLE

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COMMUNICATION ARTS

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Communication Arts, Doctoral Minor (p. 325)
- Communication Arts, M.A. (p. 326)
- Communication Arts, Ph.D. (p. 331)

PEOPLE

Faculty

Professors Michael Xenos (Chair), Robert Asen, Kelley Conway, Jonathan Gray, Robert Glenn Howard, Lea Jacobs, Stephen Lucas, Marie-Louise Mares, J. J. Murphy, Zhongdang Pan, Jeff Smith, Lyn Van Swol

Associate Professors Maria Belodubrovskaya, Eric Hoyt, Derek Johnson, Jenell Johnson, Lori Lopez, Sara McKinnon, Jeremy Morris, Ben Singer, and CatalinaToma

COMMUNICATION ARTS, DOCTORAL MINOR

Graduate students from other departments may pursue a doctoral minor in Communication Arts in one of four distinct areas of study: Communication Science; Film; Media and Cultural Studies; and Rhetoric, Politics, and Culture. Students should reach out to a faculty member in their chosen area of minor study for guidance in course selection. This faculty member then serves as the student's advisor in the minor, and signs the Minor Agreement Form (contact the graduate coordinator) upon completion of the coursework.

REQUIREMENTS

Course requirements for the minor include:

- A minimum of 9 credits
- All courses must be at the 400 level or above, and at least two courses must be at the 600 level or above
- No audits or pass/fail
- Maximum of 3 credits of COM ARTS 799 Independent Study
- An average GPA of 3.0 on all minor coursework

After coursework has been completed, the student presents the Minor Agreement Form to their advisor in the minor for signature. The Minor

Agreement Form should be returned to the student's major department graduate coordinator for help in preparing the warrant.

Program Note: Although students choose a distinct area of study for the minor degree in Communication Arts, the area of study will not be reflected on the transcript; rather it will be recorded as **Minor Communication Arts**.

PEOPLE

FACULTY

Professors Michael Xenos (Chair), Robert Asen, Kelley Conway, Jonathan Gray, Robert Glenn Howard, Lea Jacobs, Stephen Lucas, Marie-Louise Mares, J. J. Murphy, Zhongdang Pan, Jeff Smith, and Lyn Van Swol

Associate Professors Maria Belodubrovskaya, Eric Hoyt, Derek Johnson, Jenell Johnson, Lori Lopez, Sara McKinnon, Jeremy Morris, Ben Singer, and Catalina Toma

COMMUNICATION ARTS, M.A.

(Program note: Though terminal M.A. degrees may occasionally be awarded, the programs are designed with successful completion of the Ph.D. as the goal.)

The Department of Communication Arts at the University of Wisconsin–Madison has long been one of the world's leading centers for study and research in communication. It was the first department in the United States to award a Ph.D. degree in the field, and its graduates serve on the faculties of leading universities, in research institutions, and in public and private agencies throughout this country and abroad.

The graduate programs in communication arts are designed to educate research scholars. Through intensive coursework within the department and in other departments, and through close professional association with appropriate faculty, graduate students in communication arts gain proficiency and sophistication in their chosen areas of study. Their attainment of doctoral degrees signifies their readiness to work as independent scholars in their areas and to make original contributions to human knowledge.

Communication Arts offers four distinct areas of graduate study:

COMMUNICATION SCIENCE¹

Communication science is concerned with how people interact with one another in various means, modes, and contexts. It involves social scientific exploration utilizing both quantitative and qualitative methods. Reflecting the multi-faceted nature of the subject matter and a cross-disciplinary orientation of the field, students in communication science typically complete course work both in the department and in other social science fields. Graduate study in communication science is flexible and tailored to the individual. With a low faculty to student ratio and close collaboration with related academic units on campus, students have high access to faculty and with it, opportunities to work closely with faculty on research and broaden their horizon. Students are expected to develop fluency in at least two of the following areas:

- *Social influence* that focuses interpersonal interactions, both online and offline, as well as group and organizational dynamics. It examines information exchange, persuasion, and other influence processes in various social contexts.

- *Computer-mediated communication* that examines individuals' uses of the media with digital, interactive, and networking features, as well as the effects of such usage on self, relationships, group dynamics, and other social processes.
- *Human development and communication* that addresses communication in relation to life cycle, focusing in particular on life cycle patterns in the means and modes of communication, as well as the effects of communicative engagement and media usage of youths and aging.
- *Political communication* that focuses on patterns and effects of communication, both face-to-face and mediated, on the democratic process. In particular it concerns how communication shapes the public sphere, how public deliberation over political issues takes place, and how the media may be related to civic and political engagement.

FILM¹

The study of film concentrates primarily on motion picture history, theory, and criticism, approached through intensive critical analysis of individual films; research into the primary documents of filmmakers and the film industry; and the construction of theoretical models of films forms and styles, national cinemas, film genres, and the economics of the film industry. The program believes in the connection between film studies and film practice. Courses in film production enhance our understanding of motion picture history, theory, and criticism by revealing the practical decisions filmmakers confront. The program is not designed for students whose sole interest is in film production.

MEDIA AND CULTURAL STUDIES¹

The media and cultural studies (MCS) program emphasizes the study of media in their historical, economic, social, and political context. MCS courses examine the cultural forms created and disseminated by media industries and the ways in which they resonate in everyday life, on the individual, national, and global level. Focusing primarily on sound and screen media—television, new media, film, popular music, radio, video games—but reaching out across boundaries, MCS encourages interdisciplinary and transmedia research. MCS courses draw on a broad range of cultural theories spanning a spectrum of concerns all centrally relevant to the functioning of sound and screen media in a diverse and globalizing cultural environment.

RHETORIC, POLITICS, AND CULTURE¹

Whether speaking from the podium or chatting on Facebook, people use discourse to craft identities, enact social change, and form a shared sense of community. Seeking to better understand this social force, the study of discourse explores significant themes, trajectories, and transformations in politics and society while considering particular individuals and groups, cultures, eras, genres, and topics. Courses in this area explore issues of power, digital media, citizenship, gender, sexuality, race, ethnicity, globalization, religion, inclusion and exclusion, social status, and marginalization.

Graduate work in rhetoric focuses on three interrelated areas: discourse, theory, and method. All three areas of study in rhetoric, politics, and culture are united by a common commitment to understanding the role of discourse in society as we act together to engage in culture and politics. Students are encouraged to investigate a wide range of discursive phenomena as they develop expertise that will empower them to conduct significant research and to take an active role in scholarly communities.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do

not appear in the Graduate School admissions application, and they will not appear on the transcript.

ADMISSIONS

(Program note: Though terminal M.A. degrees may occasionally be awarded, the programs are designed with successful completion of the Ph.D. as the goal.)

Our graduate program considers students for fall semester admission only.

Applications are due December 15.

Applicants must have earned a bachelor's degree from an accredited institution. The Graduate School minimum GPA is 3.0 on a 4.0 scale. The department likes to see at least a 3.25 in courses relevant to the area in which you apply, although successful applicants usually have much higher GPAs.

Within the department, **students may apply to only one track of study, which must be indicated on the statement of purpose:** Communication Science; Film; Media and Cultural Studies; or Rhetoric, Politics, and Culture.

There are five supporting documents which complete the application:

1. **Statement of purpose** clearly telling us what you want to study and why you think you can do it here. Although it cannot be said to be the most important part of your application, the statement of purpose is our introduction to you as a student and as such, you will want it to be as professional and persuasive as possible to put your application in the best light.
2. **Three letters of recommendation**, preferably from academic sources. Email addresses of recommenders are submitted within the online application.
3. Official **GRE score** sent to us from ETS. The department requires no minimum GRE scores; however, successful candidates typically score well on portions of the examination related to their area of study. We don't set absolute numbers because each year's applicants are judged against all others in that year only. UW–Madison is institution #1846; no department code is necessary.
4. **PDFs of transcripts** from all postsecondary schools attended after high school. Official transcripts will be requested upon admission.
5. **A writing sample** (in English), 15–20 pages long. The best writing sample is an academic paper you wrote for a class related to the area in which you apply. It should have citations and footnotes. You may send a portion of a longer thesis if you wish, but please select a representative sample no longer than 20 pages. Include a cover page identifying it as a chapter or section of a longer work.

INTERNATIONAL APPLICANTS: An official **TOEFL, IELTS or MELAB score** sent to us from ETS is required for all applicants whose native language is not English. UW–Madison is institution #1846; no department code is necessary. The minimum scores are as follows:

- TOEFL: 92 on an internet-based exam; 580 on a paper-based exam
- IELTS: 7
- MELAB: 82

We will waive the TOEFL requirement if you have a bachelor's degree from an English-speaking institution.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

(Program note: Though terminal M.A. degrees may occasionally be awarded, the programs are designed with successful completion of the Ph.D. as the goal.)

Beginning graduate students in communication arts receive 10 consecutive semesters of guaranteed funding if they are entering with a bachelor's degree, complete their master's degree, and plan to continue on to the Ph.D. The guaranteed funding package for graduate students includes full tuition remission, monthly compensation, and benefits including health insurance.

Most communication arts graduate students are supported by teaching assistantships (TA). Additional funding comes in the form of research assistantships (RA), project assistantships (PA), Graduate School–supported fellowships, departmental awards, and conference travel awards.

Graduate Assistantships

Graduate students who hold an appointment as a TA, RA, or PA will be entitled to remission of tuition in any semester in which their appointment equals at least 33% of a full-time appointment for the semester. Graduate assistantships in communication arts are typically offered at the 50% level, which is a full-time appointment for a full-time student.

Graduate School–Supported Fellowships

A limited number of fellowships are available. All students are considered for fellowships at the time of application; no separate application is necessary. These fellowships may be for terms from one semester to two years and include tuition remission and benefits including health insurance.

Department Awards

The Department of Communication Arts is pleased to be able to grant yearly monetary awards to graduate students based on scholastic performance. Nominations for the awards are generated by the faculty in the four areas of graduate study. To be eligible for consideration, graduate students must be continuing in the program, must be making satisfactory progress toward their degree, and must not have any incompletes on their transcript. The amount and number of awards vary from year to year depending on funds available.

Conference Travel Awards

The department provides a once-per-academic-year travel stipend for students to present academic papers at a conference. First-year M.A. students are not eligible for this funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required. (see below for GPA requirement of Graduate GPA coursework taken within the department)

Other Grade Requirements A cumulative GPA for coursework within the department Requirements of 3.75 or above.

Assessments and Examinations To assess satisfactory progress toward the degree and to facilitate determinations of good standing, graduate students must complete a Professional Activities Report (PAR) each spring. A PAR indicates a student's academic and professional activities on and off campus each year. Faculty will use the PAR in their annual evaluations of student progress. A PAR represents one means of communication between graduate students and faculty, providing graduate students with an opportunity to enumerate their activities in a single document. PARS must be completed by April 1 each spring.

M.A. comprehensive examinations or theses are generally done in the student's fourth semester of study. To take comprehensive exams or complete a thesis, a student must be in good standing, and must have completed the basic and specific area course requirements. Additional requirements vary by area of study. They are as follows:

Communication Science students must complete and defend an M.A. thesis. In rare exceptions, students admitted to the graduate program may decide to leave with only an M.A. In that case, they may complete the non-thesis, terminal option. In lieu of the thesis and oral defense, two of the courses in Communication Science must be at the 800 level or above, and students must pass a four-hour written comprehensive examination which covers communication theory, research methodology, and a topic area of the student's specialization.

Film students' comprehensive exam consists of six hours of writing that cover the areas of film theory, film history, and film analysis and criticism. The completion of the written portion of the exam is followed by an oral defense. There is no option to write a thesis in lieu of the comprehensive exam.

Media and Cultural Studies students' comprehensive exam, consists of six hours of writing, normally distributed across four questions, followed by an oral defense. Exam areas are drawn from the coursework the examinee has taken in media and cultural studies. Reading lists are determined in consultation with the student's advisor and core faculty members. There is no option to write a thesis in lieu of the comprehensive exam.

Rhetoric, Culture, and Politics students must complete and defend an M.A. thesis. In rare exceptions, students admitted to the graduate program may decide to leave with only an M.A. In that case, students may complete the non-thesis, terminal option and take a comprehensive exam consisting of three, one-hour written exams addressing theory, critical method, and public discourse.

Language Requirements Students interested in writing a dissertation on a national cinema other than the U.S. are expected to complete two years of foreign language study.

REQUIRED COURSES

Successful completion of the master's degree requires a minimum of 30 credit hours, which includes coursework, independent study, and research credits. This requirement stipulates that at least 50 percent of

these credit hours must be received in courses specifically designed for graduate work, which the Graduate School defines as:

- courses numbered 700 and above;
- courses numbered 300–699 that are specifically designed for graduate students in a graduate program;
- courses numbered 300–699 that assess graduate students separately from undergraduate students;
- courses numbered 300–699 that have a graduate student enrollment greater than 50 percent in a given semester.

The department requires that a minimum of 16 credit hours must be completed in residence.

Each area of graduate study has further specific requirements for the completion of the M.A.:

Communication Science Track ¹

Code	Title	Credits
COM ARTS 760	Advances in Communication Theories	3
COM ARTS 762	Communication Research Methods	3
Four additional Communication Science courses numbered 500 or above ²		
At least one course in statistics		
Two additional courses		
COM ARTS 904	Communication Science Colloquium ³	1

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

² Only one of these courses may be COM ARTS 990 Research and Thesis. Colloquium does not count toward this requirement.

³ One credit of COM ARTS 904 Communication Science Colloquium must be taken each semester.

Film Track ^{1,2}

Code	Title	Credits
COM ARTS 358	History of Documentary Film	3
COM ARTS 454	Critical Film Analysis	3
COM ARTS 455	French Film	3
COM ARTS 463	Avant-Garde Film	3
COM ARTS 556	The American Film Industry in the Era of the Studio System	3
COM ARTS 664		
Two 900-level seminars		
COM ARTS 902	Film Colloquium ³	1

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² Some required courses may be waived if the student already has taken equivalent courses. A determination about waiving courses is made by a student's advisor after reviewing syllabi and other relevant materials. Students who enter the program without an undergraduate degree in film may be required to take additional coursework.

³ One credit of COM ARTS 904 Communication Science Colloquium must be taken each semester.

Media and Cultural Studies Track ^{1,2}

Code	Title	Credits
At least 24 credits at the 600 level and above		
At least three 900-level MCS seminars		
COM ARTS 903	Media and Cultural Studies Colloquium ³	1

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² Students who enter the program without an undergraduate degree in media studies may be required to take additional coursework.

³ One credit of COM ARTS 904 Communication Science Colloquium must be taken each semester.

Rhetoric, Politics, and Culture Track ^{1,2}

Code	Title	Credits
COM ARTS 571	Contemporary Rhetorical Theory	2-3
or COM ARTS 969 Seminar: Contemporary Rhetorical Theory		
COM ARTS 576	Principles of Rhetorical Criticism	2-3
or COM ARTS 976 Seminar in Rhetorical Criticism		
Two Communication Arts courses at the 300 level or above in Public Discourse		
COM ARTS 902	Film Colloquium ³	1

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² Some of the preceding courses may be waived if a student has taken the equivalent elsewhere. All other courses should be chosen in consultation with the student's advisor. Of the remaining courses, at least two courses must be at the 700 level or above.

³ One credit of COM ARTS 904 Communication Science Colloquium must be taken each semester.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://commarts.wisc.edu/sites/default/files/files/2017/10/05/comm-arts-grad-handbook-2017-10-05.pdf>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 9 credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a Master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

With program approval, students are allowed to count no more than 7 credits of graduate coursework taken as a UW–Madison undergraduate student. Coursework earned five or more years prior to admission to a master's degree or earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison University Special

With program approval, students are allowed to count no more than 15 credits of graduate coursework taken as a UW–Madison Special student. Coursework earned five or more years prior to admission to a master's degree or earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

PROBATION

All graduate students must stay "in good standing" in the department to be eligible for teaching assignments, awards, and fellowships, and in order to be considered to be making satisfactory progress in the program. Students whose progress is rated unsatisfactory by their faculty may face loss of funding and/or dismissal from the program.

The department's minimum criteria for good standing are:

1. Timely progress through the program, consisting of successful completion of M.A. requirements and compliance with coursework, advising, and thesis/comprehensive exam expectations.
2. A cumulative grade point average for coursework within the department of 3.75 or above.
3. No grades of Incomplete on the student's record.
4. Fulfillment of responsibilities for teaching/project assistantships or lectureships.

Students are expected to carry a full load, defined as three courses (nine credits) plus colloquium (one credit) per semester, unless a student's advisor recommends an exception.

ADVISOR / COMMITTEE

Although an initial faculty advisor is assigned to each student during the summer prior to matriculation in the graduate program, students should seek out regular advisors by the end of their first year in residence. The regular advisor should be a faculty member whose research interests and methodological expertise match closely to those that the student intends to acquire. While no faculty member is obliged to accept a student's request to serve as advisor, invitations are usually accepted except where the faculty member judges that a different advisor would serve the student's needs and interests better.

Early in the semester in which the comprehensive exam/thesis will be completed, students will form an M.A. defense committee consisting of three to four faculty members, one of which is their

advisor. In the case of comprehensive examinations, all committee members will write exam questions, read the answers, and sit on the M.A. defense. In the case of a thesis, all committee members will read the manuscript and sit on the M.A. defense.

CREDITS PER TERM ALLOWED

10-credit maximum unless additional credits are approved by faculty advisor, up to 15

TIME CONSTRAINTS

Master's degrees are generally expected to be completed within five semesters of matriculation.

OTHER

Incoming M.A. students are generally offered five academic years (fall semester and spring semester) of support in the form of teaching assistantships, project assistantships, and fellowships. Incoming Ph.D. students are generally offered three years of support. This support includes a stipend, tuition remission, and benefits.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PROGRAM RESOURCES

Graduate students should consider opportunities for professional development as they begin their programs of graduate study. As students plan programs of study, participation in campus and disciplinary organizations, scholarly presentations at academic conferences, and potential outlets for publication of research, they should consider the ways that these activities begin to establish areas of scholarly and pedagogical competence, connections with other researchers and teachers in the field, and audiences for their scholarship. Some of the best resources for professional development are the people—both faculty and other graduate students—in the Department of Communication Arts. These people may serve as sources of valuable advice and information, and their actions may provide examples of practices that promote professional development. Further, campus-wide resources are available to enrich students' graduate studies and enhance their professional skills.

DEPARTMENT RESOURCES FOR PROFESSIONAL DEVELOPMENT

Two important departmental resources for professional development are a **graduate student's advisor** and the **department colloquia**.

The **advisor** is concerned with a graduate student's academic progress as well as with the professional development of advisees. Throughout a graduate student's residence in the program (and often beyond), an advisor will discuss and answer questions and concerns about professional development. For instance, as submission deadlines to academic conferences approach, an advisor may discuss with a student potential submission options and the appropriate venues for these submissions. If a student is working on revising a seminar paper for potential public in an academic journal, an advisor will often guide the student through the revision process. When a student is applying for

jobs, an advisor will often edit application materials. When a student is interviewing for a position or negotiating a job offer, an advisor will often provide tips for how to proceed.

The **department colloquia** offers additional resources for professional development. The four areas of study (Communication Science; Film; Media and Cultural Studies; and Rhetoric, Politics, and Culture) hold individual and joint colloquia on most Thursday afternoons during the academic year. Often, these colloquia are devoted to research presentations from department faculty and graduate students as well as campus visitors. Sometimes, the colloquia will address issues of professional development. Colloquia topics on professional development include practicing conference presentations; preparing a teaching dossier; practicing job talks; negotiating the revise and resubmit process in journal publishing; and networking. Colloquia on professional development engage graduate students in discussion on professional topics, workshop materials, and offer advice on best practices.

FACULTY REVIEWS OF GRADUATE STUDENT TEACHING

Since most Communication Arts Ph.D. students pursue academic careers, developing teaching skills constitutes an important aspect of professionalization. Some colleges and universities may ask a student to prepare a teaching demonstration as part of the on-campus interview process, or otherwise seek evaluation and evidence of a graduate student's teaching abilities. To facilitate the development of graduate student teaching, faculty will provide reviews of teaching assistants (TA) in courses in which they have worked directly with graduate students in the classroom. Graduate students should expect these reviews in every semester in which they serve as a TA in one of these faculty-led courses (e.g., a lecture-discussion section course taught by a faculty member). These reviews are intended to help students identify strengths in their teaching as well as areas in which they may improve. In relevant courses, faculty will deposit an electronic copy of a teaching review with the graduate coordinator no more than two weeks after a semester has concluded. The graduate coordinator will maintain files of teaching reviews for each graduate student in the department. The graduate coordinator will send a copy of the review to the student's advisor. Faculty also will share a copy of the review with the student reviewed, who may wish to incorporate favorable reviews and quotations into a teaching dossier. Graduate students should feel welcome to discuss all reviews with their supervising faculty members. Graduate students should note, too, that these reviews will assist faculty in addressing matters of pedagogy when preparing letters of recommendation for academic employment, which will benefit students in their job searches.

TRAVEL TO MEETINGS AND CONFERENCES

The Department of Communication Arts provides a once-per-academic-year travel stipend for those students who will be presenting a paper at an academic conference. Students who are completing the first year of their M.A. degree or students who are not currently residing in Madison are not eligible for funding.

INSTRUCTIONAL MEDIA CENTER

Located on the third floor of Vilas Hall, the Instructional Media Center (IMC) provides media and technology services for the entire department. The IMC houses the Hamel Family Digital Media Lab, the Walter Mirisch Seminar Room, and Communication Arts media production classrooms. The IMC circulates laptops, video projectors, and other equipment to graduate students for instruction and short-term use. The IMC also maintains a media library containing thousands of DVDs and blu-rays of films, television shows, video games, and off-air recordings. Graduate students may check out any item not reserved for classroom use for

their research. IMC staff can assist graduate students with their research needs. Upon request, the IMC can provide film to video transfers, media creation (files, DVDs, blu-rays), video capture, as well as training in these areas. The IMC provides assistance for the Center for Communication Research. The IMC is staffed by individuals with a wide range of media knowledge and skills to assist graduate students.

LEARNING OUTCOMES

1. Articulates, critiques, or elaborates the theories, research methods, and approaches to inquiry or schools of practice in the field of study.
2. Identifies sources and assembles evidence pertaining to questions or challenges in the field of study.
3. Demonstrates understanding of the primary field of study in a historical, social, or global context.
4. Selects and/or utilizes the most appropriate methodologies and practices.
5. Evaluates or synthesizes information pertaining to questions or challenges in the field of study.
6. Communicates clearly in ways appropriate to the field of study.
7. Recognizes and applies principles of ethical and professional conduct.

PEOPLE

FACULTY

Professors Michael Xenos (Chair), Robert Asen, Kelley Conway, Jonathan Gray, Robert Glenn Howard, Lea Jacobs, Stephen Lucas, Marie-Louise Mares, J. J. Murphy, Zhongdang Pan, Jeff Smith, and Lyn Van Swol

Associate Professors Maria Belodubrovskaya, Eric Hoyt, Derek Johnson, Jenell Johnson, Lori Lopez, Sara McKinnon, Jeremy Morris, Ben Singer, and Catalina Toma

COMMUNICATION ARTS, PH.D.

The Department of Communication Arts at the University of Wisconsin in Madison has long been one of the world's leading centers for study and research in communication. It was the first department in the United States to award a Ph.D. degree in the field, and its graduates serve on the faculties of leading universities, in research institutions, and in public and private agencies throughout this country and abroad.

The graduate programs in communication arts are designed to educate research scholars. Through intensive coursework within the department and in other departments, and through close professional association with appropriate faculty, graduate students in communication arts gain proficiency and sophistication in their chosen areas of study. Their attainment of doctoral degrees signifies their readiness to work as independent scholars in their areas and to make original contributions to human knowledge.

Communication Arts offers four distinct areas of graduate study:

COMMUNICATION SCIENCE¹

Communication science is concerned with how people interact with one another in various means, modes, and contexts. It involves social scientific exploration utilizing both quantitative and qualitative methods. Reflecting the multi-faceted nature of the subject matter and a cross-disciplinary orientation of the field, students in communication science typically complete course work both in the department and in other social science fields. Graduate study in communication science is flexible and tailored to the individual. With a low faculty to student ratio and close collaboration with related academic units on campus, students have high access to faculty and with it, opportunities to work closely with faculty on research and broaden their horizon. Students are expected to develop fluency in at least two of the following areas:

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Graduate work in rhetoric focuses on three interrelated areas: discourse, theory, and method. All three areas of study in rhetoric, politics, and culture are united by a common commitment to understanding the role of discourse in society as we act together to engage in culture and politics. Students are encouraged to investigate a wide range of discursive phenomena as they develop expertise that will empower them to conduct significant research and to take an active role in scholarly communities.

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3. Official **GRE results** sent to us from ETS. The department requires no minimum GRE scores; however, successful candidates typically score well on portions of the examination related to their area of study. We don't set absolute numbers because each year's applicants are judged against all others in that year only. UW-Madison is institution #1846; no department code is necessary.
4. **PDFs of transcripts** from all post-secondary schools attended after high school. Official transcripts will be requested upon admission.

5. **A writing sample** (in English), 15-20 pages long. The best writing sample is an academic paper you wrote for a class related to the area in which you apply. It should have citations and footnotes. You may send a portion of a longer thesis if you wish, but please select a representative sample no longer than 20 pages. Include a cover page identifying it as a chapter or section of a longer work.

INTERNATIONAL APPLICANTS: An official **TOEFL, IELTS or MELAB score** sent to us from ETS is required for all applicants whose native language is not English. UW-Madison is institution #1846; no department code is necessary. The minimum scores are as follows:

- TOEFL: 92 on an internet-based exam; 580 on a paper-based exam
- IELTS: 7
- MELAB: 82

We will waive the TOEFL requirement if you have a master's degree from an English-speaking institution.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Beginning Ph.D. students in Communication Arts receive six consecutive semesters of guaranteed funding if they are entering with an M.A. in their area of focus. Students who enter with an M.A. outside of their area of focus may be required to complete an M.A. in their area of focus prior to continuing on to the Ph.D. In these cases, students receive 10 consecutive semesters of guaranteed support. The guaranteed funding package for graduate students includes full tuition remission, monthly compensation, and benefits including health insurance.

Most communication arts graduate students are supported by teaching assistantships (TA). Additional funding comes in the form of research assistantships (RA), project assistantships (PA), senior lecturer appointments (SLA), Graduate School-supported fellowships, dissertation scholarships, departmental awards, and conference travel awards.

Graduate Assistantships

Graduate students who hold an appointment as a TA, RA, or PA will be entitled to remission of tuition in any semester in which their appointment equals at least 33% of a full-time appointment for the semester. Graduate assistantships in communication arts are typically offered at the 50% level, which is a full-time appointment for a full-time student.

Senior Lecturer Appointments

Students are assigned to SLA by faculty each semester based on need.

Graduate School Supported Fellowships

A limited number of fellowships are available. All students are considered for fellowships at the time of application; no separate application is necessary. These fellowships may be for terms from one semester to two years and include tuition remission and benefits including health insurance.

Dissertation Scholarships

The department awards Elliott Dissertation Scholarships to students who have successfully defended their dissertation proposal no later than 12 months after passing their preliminary exams. This award is designed to facilitate progress on researching and writing the dissertation.

Department Awards

The Department of Communication Arts is pleased to be able to grant yearly monetary awards to graduate students based on scholastic performance. Nominations for the awards are generated by the faculty in the four areas of graduate study. To be eligible for consideration, graduate students must be continuing in the program, must be making satisfactory progress toward their degree, and must not have any incompletes on their transcript. The amount and number of awards vary from year to year depending on funds available.

Conference Travel Awards

The department provides a once-per-academic-year travel stipend for students to present academic papers at a conference. Students not residing in Madison during the semester in which they present at conference are not eligible for this funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely

online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 51 credits

Minimum Residence Credit Requirement 40 credits

Minimum Graduate Coursework Requirement Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.

Overall Graduate GPA Requirement 3.00 GPA required. (see below for GPA requirement of graduate coursework taken within the department)

Other Grade Requirements 3.75 average required of all coursework taken within the department.

Assessments and Examinations To assess satisfactory progress toward the degree and to facilitate determinations of good standing, graduate students must complete a Professional Activities Report (PAR) each spring. A PAR indicates a student's academic and professional activities on and off campus each year. Faculty will use the PAR in their annual evaluations of student progress. A PAR represents one means of communication between graduate students and faculty, providing graduate students with an opportunity to enumerate their activities in a single document. PARS must be completed by April 1 each spring.

Students must successfully complete preliminary examinations before moving on to dissertator status. To take preliminary examinations, students must have completed all of the Ph.D. coursework requirements of their area and their minor coursework. Additional requirements vary by area of study. They are as follows:

Communication Science prelims consist of 16 hours of written examinations in the following areas:

Communication processes and contexts (8 hours): four hours each in two major topic areas in the field focusing on theories and major empirical findings
 Specialization (4 hours): four hours in the student's area of specialization; typically, the dissertation research dictates the area of specialization
 Quantitative research methodology and theory construction (4 hours): this portion of the exam may include questions addressing statistics, research design, measurement, and the construction and evaluation of theory

Film prelims consist of 12 hours of written examination divided across the following four concentrations:

Film theory (3 hours)
 Film history (3 hours)
 Film analysis and criticism (3 hours)
 Area of specialization determined in consultation with the student's advisor (3 hours)

Media and Cultural Studies prelims consists of 24 hours of written examinations as follows: four open-book essay exams, six hours each, taken on separate days. The examination covers a combination of general and specialized areas in relation to the planned dissertation project, to be chosen in a group consultation with the student's advisor and major faculty.

Rhetoric, Politics, and Culture prelims consist of 12 hours of written examination divided across the following four concentrations:

Rhetorical theory (3 hours)
 Rhetorical discourse (3 hours)
 Critical method (3 hours)
 Area of specialization determined in consultation with the student's advisor and doctoral committee (3 hours)

Language Requirements Depending on their dissertation topic, students in the Communication Science and Film areas may need to fulfill a foreign language requirement. The need for such a requirement is determined by the student's advisor and doctoral committee.

Doctoral Minor/Breadth Requirements All doctoral students are required to complete a minor of at least 9 credits.

REQUIRED COURSES

Successful completion of the Ph.D. requires a minimum of 51 credit hours, which includes coursework, independent study, and research credits. This requirement stipulates that at least 50 percent of these credit hours must be received in courses specifically designed for graduate work, which the Graduate School defines as:

- courses numbered 700 and above;
- courses numbered 300–699 that are specifically designed for graduate students in a graduate program;
- courses numbered 300–699 that assess graduate students separately from undergraduate students;
- courses numbered 300–699 that have a graduate student enrollment greater than 50 percent in a given semester.

Credit hours taken towards the completion of a master's degree in the Department of Communication Arts may count toward this requirement. Credit hours taken while enrolled as a graduate student outside of the department and UW–Madison may count toward this requirement with the approval of the Graduate Committee. The department requires that a minimum of 40 credit hours must be completed in residence.

Communication Science Track ¹

Code	Title	Credits
COM ARTS 760	Advances in Communication Theories	3
COM ARTS 762	Communication Research Methods	3

At least one additional course in research methods

At least two courses in statistics

Four additional Communication Science courses at the 500 level or above. One semester of COM ARTS 990 may count toward this requirement. Colloquium does not count toward this requirement.

At least four additional courses at the 700 level or above. At least one of these courses must be COM ARTS 970. Only one of these courses may be COM ARTS 799.

COM ARTS 904	Communication Science Colloquium (One credit per semester)	1
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Completion of a 9-credit minor

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Film Track ¹

Code	Title	Credits
COM ARTS 665		

COM ARTS 958	Seminar in Film History (Topic: Historiography of Film)	2-3
COM ARTS 902	Film Colloquium (One credit per semester)	1

Completion of a 9-credit minor

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Media and Cultural Studies Track ¹

Code	Title	Credits
At least 12 credits at the 900 level in COM ARTS courses		
COM ARTS 903	Media and Cultural Studies Colloquium (One credit per semester)	1

Completion of a 9-credit minor

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Rhetoric, Politics, and Culture Track ¹

Code	Title	Credits
COM ARTS 570	Classical Rhetorical Theory	3
COM ARTS 571	Contemporary Rhetorical Theory	2-3
or COM ARTS 966	Seminar-Modern Rhetorical Theory	
COM ARTS 576	Principles of Rhetorical Criticism	2-3
or COM ARTS 976	Seminar in Rhetorical Criticism	

Two Communication Arts courses at the 300 level or above in Public Discourse

COM ARTS 905	Rhetoric Colloquium (One credit per semester)	1-3
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Completion of a 9-credit minor

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://commarts.wisc.edu/sites/default/files/files/2017/10/05/comm-arts-grad->

handbook-2017-10-05.pdf) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 9 credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a Master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

With program approval, students are allowed to count no more than 7 credits of graduate coursework taken as a UW–Madison undergraduate student. Coursework earned five or more years prior to admission to a master's degree or earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison University Special

With program approval, students are allowed to count no more than 15 credits of graduate coursework taken as a UW–Madison Special student. Coursework earned five or more years prior to admission to a master's degree or earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

PROBATION

All graduate students must stay "in good standing" in the department to be eligible for teaching assignments, awards, and fellowships, and in order to be considered to be making satisfactory progress in the program. Students whose progress is rated unsatisfactory by their faculty may face loss of funding and/or dismissal from the program.

The department's minimum criteria for good standing are:

1. Timely progress through the program, consisting of successful completion of M.A. requirements and compliance with coursework, advising, and thesis/comprehensive exam expectations.
2. A cumulative grade point average for coursework within the department of 3.75 or above.
3. No grades of Incomplete on the student's record.
4. Fulfillment of responsibilities for teaching/project assistantships or lectureships.

ADVISOR / COMMITTEE

Although an initial faculty advisor is assigned to each student during the summer prior to matriculation in the graduate program, students should seek out regular advisors by the end of their first year in residence. The regular advisor should be a faculty member whose research interests and methodological expertise match closely to those that the student intends to acquire. While no faculty member is obliged to accept a student's request to serve as advisor, invitations are usually accepted except where the faculty member judges that a different advisor would serve the student's needs and interests better.

Early in the semester in which the preliminary exams will be completed, students will form a **prelim committee** consisting of three to four faculty members, one of which is the student's advisor. In the case of preliminary examinations, all committee members

will write exam questions, read the answers, and sit on the prelim defense.

Upon passing preliminary examinations, students will form a **dissertation proposal committee**, consisting of three to four faculty members, one of which is the student's advisor. Before the student may proceed with writing the dissertation, the proposal must be approved by the dissertation proposal committee. While writing the dissertation, a student must obtain the approval of the advisor for modifications to the dissertation that depart significantly from the proposal.

Once the dissertation proposal has been approved, the student must form a **dissertation committee**. The dissertation committee serves as the final oral committee before whom the student must defend the completed dissertation manuscript. Often the members of the dissertation proposal committee serve on the dissertation committee as well, but the membership of the two committees may differ. A dissertation committee consists of at least four members, three of whom must be UW–Madison graduate faculty: the student's advisor, at least two additional members from the student's primary area of concentration, and at least one member from outside the department which may be someone on campus or from another institution. All members of a student's dissertation committee must be designated as "readers," defined as committee members who commit themselves to closely reading and reviewing the entire dissertation.

In exceptional circumstances, the student may seek a **formal co-advisor** for their dissertation committee. The department recognizes two situations in which this may be appropriate: (1) the student's dissertation project genuinely pursues an interdisciplinary topic that requires the equal involvement of a faculty member in Communication Arts and a faculty member in another department at UW–Madison; or (2) the student's advisor retires or resigns from the University, and the student cannot complete the dissertation within one year of the retirement or resignation, which requires the student to seek a new advisor in the department. (For the second situation, this person becomes the newly selected advisor.)

CREDITS PER TERM ALLOWED

10-credit maximum unless additional credits are approved by faculty advisor, up to 15

TIME CONSTRAINTS

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

OTHER

Incoming M.A. students are generally offered 5 academic years (fall semester and spring semester) of support in the form of teaching assistantships, project assistantships, and fellowships. Incoming Ph.D. students are generally offered 3 years of support. This support includes a stipend, tuition remission, and benefits.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PROGRAM RESOURCES

Graduate students should consider opportunities for professional development as they begin their programs of graduate study. As students plan programs of study, participation in campus and disciplinary organizations, scholarly presentations at academic conferences, and potential outlets for publication of research, they should consider the ways that these activities begin to establish areas of scholarly and pedagogical competence, connections with other researchers and teachers in the field, and audiences for their scholarship. Some of the best resources for professional development are the people—both faculty and other graduate students—in the Department of Communication Arts. These people may serve as sources of valuable advice and information, and their actions may provide examples of practices that promote professional development. Further, campus-wide resources are available to enrich students' graduate studies and enhance their professional skills.

DEPARTMENT RESOURCES FOR PROFESSIONAL DEVELOPMENT

Two important departmental resources for professional development are a **graduate student's advisor** and the **department colloquia**.

The **advisor** is concerned with a graduate student's academic progress as well as with the professional development of advisees. Throughout a graduate student's residence in the program (and often beyond), an advisor will discuss and answer questions and concerns about professional development. For instance, as submission deadlines to academic conferences approach, an advisor may discuss with a student potential submission options and the appropriate venues for these submissions. If a student is working on revising a seminar paper for potential public in an academic journal, an advisor will often guide the student through the revision process. When a student is applying for jobs, an advisor will often edit application materials. When a student is interviewing for a position or negotiating a job offer, an advisor will often provide tips for how to proceed.

The **department colloquia** offers additional resources for professional development. The four areas of study (Communication Science; Film; Media and Cultural Studies; and Rhetoric, Politics, and Culture) hold individual and joint colloquia on most Thursday afternoons during the academic year. Often, these colloquia are devoted to research presentations from department faculty and graduate students as well as campus visitors. Sometimes, the colloquia will address issues of professional development. Colloquia topics on professional development include practicing conference presentations; preparing a teaching dossier; practicing job talks; negotiating the revise and resubmit process in journal publishing; and networking. Colloquia on professional development engage graduate students in discussion on professional topics, workshop materials, and offer advice on best practices.

FACULTY REVIEWS OF GRADUATE STUDENT TEACHING

Since most Communication Arts Ph.D.s pursue academic careers, developing teaching skills constitutes an important aspect of professionalization. Some colleges and universities may ask a student to prepare a teaching demonstration as part of the on-campus interview process, or otherwise seek evaluation and evidence of a graduate student's teaching abilities. To facilitate the development of graduate student teaching, faculty will provide reviews of teaching assistants (TA) in courses in which they have worked directly with graduate students in the classroom. Graduate students should expect these reviews in every semester in which they serve as a TA in one of these faculty-led courses (e.g., a lecture-discussion section course taught by a faculty member). These reviews are intended to help students identify strengths in their teaching as well as areas in which they may improve. In relevant courses, faculty will deposit an electronic copy of a teaching review with the graduate coordinator no more than two weeks after a semester has concluded. The graduate coordinator will maintain files of teaching reviews for each graduate student in the department. The graduate coordinator will send a copy of the review to the student's advisor. Faculty also will share a copy of the review with the student reviewed, who may wish to incorporate favorable reviews and quotations into a teaching dossier. Graduate students should feel welcome to discuss all reviews with their supervising faculty members. Graduate students should note, too, that these reviews will assist faculty in addressing matters of pedagogy when preparing letters of recommendation for academic employment, which will benefit students in their job searches.

TRAVEL TO MEETINGS AND CONFERENCES

The Department of Communication Arts provides a once-per-academic-year travel stipend for those students who will be presenting a paper at an academic conference. Students who are not currently residing in Madison are not eligible for funding.

INSTRUCTIONAL MEDIA CENTER

Located on the third floor of Vilas Hall, the Instructional Media Center (IMC) provides media and technology services for the entire department. The IMC houses the Hamel Family Digital Media Lab, the Walter Mirisch Seminar Room, and Communication Arts media production classrooms. The IMC circulates laptops, video projectors, and other equipment to graduate students for instruction and short-term use. The IMC also maintains a media library containing thousands of DVDs and blu-rays of films, television shows, video games, and off-air recordings. Graduate students may check out any item not reserved for classroom use for their research. IMC staff can assist graduate students with their research needs. Upon request, the IMC can provide film to video transfers, media creation (files, DVDs, blu-rays), video capture, as well as training in these areas. The IMC provides assistance for the Center for Communication Research. The IMC is staffed by individuals with a wide range of media knowledge and skills to assist graduate students.

LEARNING OUTCOMES

1. Articulates research problems, potentials, and limits with respect to theory, knowledge, or practice within the field of study.
2. Formulates ideas, concepts, designs, and/or techniques beyond the current boundaries of knowledge within the field of study.
3. Creates research, scholarship, or performance that makes a substantive contribution.

4. Demonstrates breadth within their learning experiences.
5. Advances contributions of the field of study to society.
6. Communicates complex ideas in a clear and understandable manner.
7. Fosters ethical and professional conduct.

PEOPLE

FACULTY

Professors Michael Xenos (Chair), Robert Asen, Kelley Conway, Jonathan Gray, Robert Glenn Howard, Lea Jacobs, Stephen Lucas, Marie-Louise Mares, J. J. Murphy, Zhongdang Pan, Jeff Smith, and Lyn Van Swol

Associate Professors Maria Belodubrovskaya, Eric Hoyt, Derek Johnson, Jenell Johnson, Lori Lopez, Sara McKinnon, Jeremy Morris, Ben Singer, and Catalina Toma

COMMUNICATION SCIENCES AND DISORDERS

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Audiology, Au.D. (p. 338)
- Communication Sciences and Disorders, Doctoral Minor (p. 347)
- Communication Sciences and Disorders, M.S. (p. 347)
- Communication Sciences and Disorders, Ph.D. (p. 352)

PEOPLE

Information about faculty and staff can be found on the program's website (<https://csd.wisc.edu/peopleofCSD.htm>).

AUDIOLOGY, AU.D.

The Au.D. program is a four-year professional doctorate program offered jointly by the UW–Madison Department of Communication Sciences and Disorders and the UW–Stevens Point School of Communicative Disorders.

The program was designed to train professional audiologists through a firm foundation in science and technology. Clerkships and onsite mentoring assure that students graduate with superior clinical skills.

In this unique program, lecture classes are taught simultaneously at both campuses; videoconferencing allows for interaction with students and faculty at the remote campus. Laboratory experiences are taught separately, using the same curriculum, on each campus. Summer academic course work is entirely online, and clinical experiences take place both on and off campus.

The Au.D. program is accredited by the Council on Academic Accreditation in Audiology and Speech–Language Pathology (CAA) of the American Speech–Language–Hearing Association.

The academic objectives of the program are:

- To prepare students to enter the profession of audiology fully able to function as independent audiologists in private practice, medical clinics, and school settings.
- To provide a strong theoretical, technical, and scientific base for the clinical practice of audiology.
- To prepare students to meet certification and licensure requirements for the practice of clinical audiology.
- To prepare students to be lifelong learners.

ADMISSIONS

Students apply to either the named option (sub-major) in "Audiology: Collaborative Program at Stevens Point (p. 341)" or "Audiology: Collaborative Program at UW-Madison (p. 344)".

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Financial assistance, sometimes available to graduate students in communication sciences and disorders, consists of scholarships, fellowships, traineeships, and project and research assistant positions. Financial assistance is very limited and varies from year to year.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich,

interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum 75 credits

Credit Requirement

Minimum 75 credits

Residence Credit Requirement

Minimum Graduate Coursework Requirement All (100%) of the minimum number of credits (75) must be taken in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements

The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Consult the program for specific requirements.

Language Requirements Contact the program for information on any language requirements.

Doctoral Breadth Requirements Audiology doctoral students are not required to complete a doctoral minor; they may pursue a minor if they wish.

REQUIRED COURSES

Code	Title	Credits
Year 1, Fall Semester		
CS&D 850	Hearing Science I: Basic Acoustics and Psychoacoustics	3
CS&D 852	Hearing Assessment	2
CS&D 853	Hearing Assessment Laboratory	1
CS&D 854	Electroacoustics and Instrument Calibration	2
CS&D 855	Electroacoustics and Calibration Laboratory	1
CS&D 891	Clerkship in Audiology I	2
CS&D 424	Sign Language I (optional if not completed in undergrad)	2
Year 1, Spring Semester		
CS&D 832	Pediatric Audiology	3

CS&D 856	Amplification Systems I	2
CS&D 857	Laboratory in Amplification Systems I	1
CS&D 858	Physiological Assessment in Audiology I	2
CS&D 859	Laboratory in Physiological Assessment of the Auditory System I	1
CS&D 891	Clerkship in Audiology I	2

Year 1, Summer Semester

CS&D 833	Occupational Audiology	2
CS&D 892	Clerkship in Audiology II	3

Year 2, Fall Semester

CS&D 835	Clinical Research Methods	3
CS&D 860	Physiological Assessment in Audiology II	2
CS&D 861	Laboratory in Physiological Assessment of the Auditory System II	1
CS&D 845	The Human Balance System: Structure, Assessment, and Rehabilitation	2

CS&D 846	The Human Balance System: Laboratory	1
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CS&D 892	Clerkship in Audiology II	2
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Year 2, Spring Semester

CS&D 849	Geriatric Audiology: Diagnosis and Rehabilitation	2
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CS&D 862	Auditory and Vestibular Pathologies II	3
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CS&D 865	Practice Management	2
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CS&D 866	Amplification Systems II	2
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CS&D 892	Clerkship in Audiology II	2
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CS&D 899	Capstone Study in Audiology	1
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Year 2, Summer Semester

CS&D 806	Professional Issues: Medical Issues	1
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CS&D 893	Clerkship in Audiology III	3
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Year 3, Fall Semester

CS&D 863	Implantable Auditory Prostheses	2
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CS&D 834	Counseling in Audiology	2
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CS&D 899	Capstone Study in Audiology	3
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CS&D 893	Clerkship in Audiology III	3
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Year 3, Spring Semester

CS&D 865	Practice Management (alternate years)	2
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CS&D 867	School Methods for Audiologists	1
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CS&D 836	Pediatric Habilitation/Rehabilitation	3
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CS&D 899	Capstone Study in Audiology	3
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CS&D 893	Clerkship in Audiology III	3
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Year 3, Summer Semester

CS&D 894	Externship in Audiology	3
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Year 4, Fall Semester

CS&D 921	Seminar-Problems in Audiology	3
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CS&D 894	Externship in Audiology	3
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Year 4, Spring Semester

CS&D 921	Seminar-Problems in Audiology	3
CS&D 894	Externship in Audiology	3

NAMED OPTIONS (SUB-MAJORS)

A named option is a formally documented sub-major within an academic major program. Named options appear on the transcript with degree conferral. Students pursuing the Audiology Au.D. must select one of the following named options:

- Audiology: Collaborative Program at Stevens Point, Au.D. (p. 341)
- Audiology: Collaborative Program at UW-Madison, Au.D. (p. 344)

POLICIES**GRADUATE SCHOOL POLICIES**

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES**GRADUATE PROGRAM HANDBOOK**

The Graduate Program Handbook (<https://csd.wisc.edu/2017-2018-aud-student-handbook>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK**Graduate Work from Other Institutions**

No prior coursework from other institutions is allowed.

UW-Madison Undergraduate

Up to 6 credits from a UW-Madison undergraduate degree are allowed to count toward the degree. If the courses are numbered 500 and above, the credits may be counted toward the overall graduate credit requirement; if the courses are numbered 700 or above, they may count toward both the minimum graduate degree requirements and minimum graduate coursework (50%) requirement.

UW-Madison University Special

No prior coursework from UW-Madison University Special career is allowed.

PROBATION

A student failing to maintain a minimum GPA of 3.0 will be placed on academic probation and will be required to raise his/her GPA to 3.0 or above in the following semester. If the GPA is not raised to 3.0 or above in the following semester, the student will be dismissed from the program. A student receiving a course grade less than "B" shall receive a written warning reminding the student of the "no more than two grades below a "B" rule and shall be placed on academic probation.

Students who are having difficulty with essential abilities and/or meeting competencies in coursework will receive a written improvement plan. An improvement plan specifies the ASHA

standards and competencies that the student has not met, as well as a statement explaining what the student must do to meet competency level and a statement explaining what the faculty will do to provide opportunities for improved performance. An improvement plan may require the student to retake an examination or even repeat an entire course if deemed necessary by the academic instructor. If a student has an improvement plan, he/she should communicate regularly with each academic instructor to discuss the plan each semester the plan is in place. The student is responsible for scheduling these communications.

In addition to the department's probation policy, the Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

When students are admitted to the Au.D. program, they are provided with a course sequence for the entire program. It is strongly recommended that students adhere to this sequence, although modifications to the plan may be made in consultation with the Au.D. program advisor and the director of clinical education. Every graduate student is required to have an advisor. The Au.D. program advisor is the assigned advisor for students in the Au.D. program. Students can be suspended from the Graduate School if they do not have an advisor.

CREDITS PER TERM ALLOWED

14 credits

TIME CONSTRAINTS

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

Consult the program for additional program-specific time constraints.

OTHER

n/a

PROFESSIONAL DEVELOPMENT**GRADUATE SCHOOL RESOURCES**

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. (Foundations of Practice) Possess knowledge of normal aspects of auditory physiology and behavior over the life span and normal development of speech and language.

2. (Foundations of Practice) Demonstrate an understanding of the effects of hearing loss on communication and educational, vocational, social, and psychological functioning.
3. (Foundations of Practice) Possess knowledge of pathologies related to hearing and balance and their medical diagnosis and treatment.
4. (Foundations of Practice) Demonstrate clinically appropriate oral and written communication skills.
5. (Foundations of Practice) Recognize principles and practices of research, including experimental design, statistical methods, and application to clinical populations.
6. (Prevention, Identification, and Assessment) Screen individuals for hearing impairment and disability/handicap using clinically appropriate, culturally sensitive, and age- and site-specific screening measures.
7. (Prevention, Identification, and Assessment) Demonstrate abilities to assess individuals with suspected disorders of hearing, communication, balance, and related systems
8. (Prevention, Identification, and Assessment) Evaluate information from appropriate sources and obtaining a case history to facilitate assessment planning.
9. (Prevention, Identification, and Assessment) Conduct and interpret behavioral and/or electrophysiologic methods to assess hearing thresholds, auditory neural function, balance and related systems.
10. (Prevention, Identification, and Assessment) Prepare reports, including interpreting data, summarizing findings, generating recommendations, and developing an audiologic treatment/management plan.
11. (Intervention) Provide intervention services (treatment) to individuals with hearing loss, balance disorders, and other auditory dysfunction that compromises receptive and expressive communication.
12. (Intervention) Develop culturally appropriate, audiologic rehabilitative management plans.
13. (Intervention) Evaluate the efficacy of intervention (treatment) services.
14. (Professional Conduct) Recognize and apply principles of ethical and professional conduct.
15. (Professional Conduct) Apply skills for life-long learning.
16. (Professional Conduct) Demonstrate teamwork and problem solving.
17. (Professional Conduct) Possess knowledge of contemporary professional issues and advocacy.
18. (Professional Conduct) Communicate effectively, recognizing the needs, values, preferred mode of communication, and cultural/linguistic background of the patient, family, caregiver, and relevant others.
19. (Professional Conduct) Provide counseling and supportive guidance regarding hearing and balance disorders to patients, family, caregivers, and relevant others.

PEOPLE

Information about faculty and staff can be found on the program's website (<https://csd.wisc.edu/directory>).

ACCREDITATION

ACCREDITATION

Council on Academic Accreditation in Audiology and Speech–Language–Pathology (<https://caa.asha.org>)

Accreditation Status: Accredited. Next Accreditation Review: 2022.

CERTIFICATION/LICENSURE

American Speech–Language–Hearing Association (<https://www.asha.org>)

Praxis Pass Rate

Year of Exam	UW-Madison Graduates: All Attempts	National All Attempt:
2016–2017	100%	Not Available
2015–2016	100%	Not Available
2014–2015	100%	Not Available

AUDIOLOGY: COLLABORATIVE PROGRAM AT STEVENS POINT, AU.D.

This is a named option within the Audiology Au.D. (p. 338)

The Au.D. program is a four-year professional doctorate program offered jointly by the UW–Madison Department of Communication Sciences and Disorders and the UW–Stevens Point School of Communication Sciences and Disorders.

The program was designed to train professional audiologists through a firm foundation in science and technology. Clerkships and onsite mentoring assure that students graduate with superior clinical skills.

In this unique program, lecture classes are taught simultaneously at both campuses; videoconferencing allows for interaction with students and faculty at the remote campus. Laboratory experiences are taught separately, using the same curriculum, on each campus. Summer academic course work is entirely online, and clinical experiences take place both on and off campus.

The Au.D. program is accredited by the Council on Academic Accreditation in Audiology and Speech–Language Pathology (CAA) of the American Speech–Language–Hearing Association.

ADMISSIONS

An undergraduate major in communication sciences and disorders is recommended, but not required, for admission to the Au.D. program. If you do not have an undergraduate degree in communication sciences and disorders, you must make up any coursework deficiencies before your graduate study.

Students apply to either the named option (sub-major) in "Audiology: Collaborative Program at Stevens Point (p. 341)" or "Audiology: Collaborative Program at UW-Madison (p. 344)."

Apply Online

Fall Application Deadline: January 15

NOTABLE ADVICE

- Submit all materials one week prior to deadline. Late and incomplete applications will not be considered.
- File your application early. Do not wait until you can gather all your materials. It is better to file early and send additional items as they become available.
- Track your application status. After submission of your application, you will receive a link to a personal web page where you can track your application status. We update this page as we receive your materials, usually within two weeks of receipt.
- For more information, review the UW–Madison Graduate School Steps to Apply (<http://grad.wisc.edu/admissions/process>) and Admissions FAQs (<http://grad.wisc.edu/admissions/faq>).

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Financial assistance, sometimes available to graduate students in communication sciences and disorders, consists of scholarships, fellowships, traineeships, and project and research assistant positions. Financial assistance is very limited and varies from year to year.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum 75 credits
Credit
Requirement

Minimum 75 credits
Residence
Credit
Requirement

Minimum Graduate Coursework Requirement All (100%) of the minimum number of credits (75) must be taken in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Consult the program for specific requirements.

Language Requirements Contact the program for information on any language requirements.

Doctoral Minor / Breadth Requirements Audiology doctoral students are not required to complete a doctoral minor; they may pursue a minor if they wish.

REQUIRED COURSES

Code	Title	Credits
Year 1, Fall Semester		
CS&D 850	Hearing Science I: Basic Acoustics and Psychoacoustics	3
CS&D 852	Hearing Assessment	2
CS&D 853	Hearing Assessment Laboratory	1
CS&D 854	Electroacoustics and Instrument Calibration	2
CS&D 855	Electroacoustics and Calibration Laboratory	1
CS&D 891	Clerkship in Audiology I	2
CS&D 424	Sign Language I (optional if not completed in undergrad)	2
Year 1, Spring Semester		
CS&D 832	Pediatric Audiology	3
CS&D 856	Amplification Systems I	2
CS&D 857	Laboratory in Amplification Systems I	1
CS&D 858	Physiological Assessment in Audiology I	2
CS&D 859	Laboratory in Physiological Assessment of the Auditory System I	1
CS&D 891	Clerkship in Audiology I	2
Year 1, Summer Semester		
CS&D 833	Occupational Audiology	2
CS&D 892	Clerkship in Audiology II	3
Year 2, Fall Semester		
CS&D 835	Clinical Research Methods	3
CS&D 860	Physiological Assessment in Audiology II	2
CS&D 861	Laboratory in Physiological Assessment of the Auditory System II	1
CS&D 845	The Human Balance System: Structure, Assessment, and Rehabilitation	2
CS&D 846	The Human Balance System: Laboratory	1
CS&D 892	Clerkship in Audiology II	2
Year 2, Spring Semester		
CS&D 849	Geriatric Audiology: Diagnosis and Rehabilitation	2
CS&D 862	Auditory and Vestibular Pathologies II	3

CS&D 865	Practice Management	2
CS&D 866	Amplification Systems II	2
CS&D 892	Clerkship in Audiology II	2
CS&D 899	Capstone Study in Audiology	1

Year 2, Summer Semester

CS&D 806	Professional Issues: Medical Issues	1
CS&D 893	Clerkship in Audiology III	3

Year 3, Fall Semester

CS&D 863	Implantable Auditory Prostheses	2
CS&D 834	Counseling in Audiology	2
CS&D 899	Capstone Study in Audiology	3
CS&D 893	Clerkship in Audiology III	3

Year 3, Spring Semester

CS&D 865	Practice Management (alternate years)	2
CS&D 867	School Methods for Audiologists	1
CS&D 836	Pediatric Habilitation/Rehabilitation	3
CS&D 899	Capstone Study in Audiology	3
CS&D 893	Clerkship in Audiology III	3

Year 3, Summer Semester

CS&D 894	Externship in Audiology	3
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Year 4, Fall Semester

CS&D 921	Seminar-Problems in Audiology	3
CS&D 894	Externship in Audiology	3

Year 4, Spring Semester

CS&D 921	Seminar-Problems in Audiology	3
CS&D 894	Externship in Audiology	3

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

NAMED OPTION-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://csd.wisc.edu/2017-2018-aud-student-handbook>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

No prior coursework from other institutions is allowed.

UW–Madison Undergraduate

Up to 6 credits from a UW–Madison undergraduate degree are allowed to count toward the degree. If the courses are numbered 500 and above, the credits may be counted toward the overall graduate credit requirement; if the courses are numbered 700 or above, they may count toward both the minimum graduate

degree requirements and minimum graduate coursework (50%) requirement.

UW–Madison University Special

No prior coursework from UW–Madison University Special career is allowed.

PROBATION

A student failing to maintain a minimum GPA of 3.0 will be placed on academic probation and will be required to raise his/her GPA to 3.0 or above in the following semester. If the GPA is not raised to 3.0 or above in the following semester, the student will be dismissed from the program. A student receiving a course grade less than “B” shall receive a written warning reminding the student of the “no more than two grades below a “B” rule and shall be placed on academic probation.

Students who are having difficulty with essential abilities and/or meeting competencies in coursework will receive a written improvement plan. An improvement plan specifies the ASHA standards and competencies that the student has not met, as well as a statement explaining what the student must do to meet competency level and a statement explaining what the faculty will do to provide opportunities for improved performance. An improvement plan may require the student to retake an examination or even repeat an entire course if deemed necessary by the academic instructor. If a student has an improvement plan, he/she should communicate regularly with each academic instructor to discuss the plan each semester the plan is in place. The student is responsible for scheduling these communications.

In addition to the department’s probation policy, the Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

When students are admitted to the Au.D. program, they are provided with a course sequence for the entire program. It is strongly recommended that students adhere to this sequence, although modifications to the plan may be made in consultation with the Au.D. program advisor and the director of clinical education. Every graduate student is required to have an advisor. The Au.D. program advisor is the assigned advisor for students in the Au.D. program. Students can be suspended from the Graduate School if they do not have an advisor.

CREDITS PER TERM ALLOWED

14 credits

TIME CONSTRAINTS

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

Consult the program for additional program-specific time constraints.

OTHER

n/a

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School’s professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PEOPLE

Information about faculty and staff can be found on the program’s website (<https://csd.wisc.edu/directory>).

AUDIOLOGY: COLLABORATIVE PROGRAM AT UW-MADISON, AU.D.

This is a named option within the Audiology Au.D. (p. 338)

The Au.D. program is a four-year professional doctorate program offered jointly by the UW–Madison Department of Communication Sciences and Disorders and the UW–Stevens Point School of Communicative Disorders.

The program was designed to train professional audiologists through a firm foundation in science and technology. Clerkships and onsite mentoring assure that students graduate with superior clinical skills.

In this unique program, lecture classes are taught simultaneously at both campuses; videoconferencing allows for interaction with students and faculty at the remote campus. Laboratory experiences are taught separately, using the same curriculum, on each campus. Summer academic course work is entirely online, and clinical experiences take place both on and off campus.

The Au.D. program is accredited by the Council on Academic Accreditation in Audiology and Speech–Language Pathology (CAA) of the American Speech–Language–Hearing Association.

ADMISSIONS

An undergraduate major in communication sciences and disorders is recommended, but not required, for admission to the Au.D. program. If you do not have an undergraduate degree in communication sciences and disorders, you must make up any coursework deficiencies before your graduate study.

Students apply to either the named option (sub-major) in “Audiology: Collaborative Program at Stevens Point (p. 341)” or “Audiology: Collaborative Program at UW-Madison (p. 344).”

Apply Online

Fall Application Deadline: January 15

NOTABLE ADVICE

- Submit all materials one week prior to deadline. Late and incomplete applications will not be considered.
- File your application early. Do not wait until you can gather all your materials. It is better to file early and send additional items as they become available.
- Track your application status. After submission of your application, you will receive a link to a personal web page where you can track your application status. We update this page as we receive your materials, usually within two weeks of receipt.
- For more information, review the UW–Madison Graduate School Steps to Apply (<http://grad.wisc.edu/admissions/process>) and Admissions FAQs (<http://grad.wisc.edu/admissions/faq>).

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Financial assistance, sometimes available to graduate students in communication sciences and disorders, consists of scholarships, fellowships, traineeships, and project and research assistant positions. Financial assistance is very limited and varies from year to year.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement	75 credits
Minimum Residence Credit Requirement	75 credits
Minimum Graduate Coursework Requirement	All (100%) of the minimum number of credits (75) must be taken in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.
Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.
Assessments and Examinations	Consult the program for specific requirements.
Language Requirements	Contact the program for information on any language requirements.
Doctoral Minor / Breadth Requirements	Audiology doctoral students are not required to complete a doctoral minor; they may pursue a minor if they wish.

REQUIRED COURSES

Code	Title	Credits
Year 1, Fall Semester		
CS&D 850	Hearing Science I: Basic Acoustics and Psychoacoustics	3
CS&D 852	Hearing Assessment	2
CS&D 853	Hearing Assessment Laboratory	1
CS&D 854	Electroacoustics and Instrument Calibration	2
CS&D 855	Electroacoustics and Calibration Laboratory	1

CS&D 891	Clerkship in Audiology I	2
CS&D 424	Sign Language I (optional if not completed in undergrad)	2
Year 1, Spring Semester		
CS&D 832	Pediatric Audiology	3
CS&D 856	Amplification Systems I	2
CS&D 857	Laboratory in Amplification Systems I	1
CS&D 858	Physiological Assessment in Audiology I	2
CS&D 859	Laboratory in Physiological Assessment of the Auditory System I	1
CS&D 891	Clerkship in Audiology I	2
Year 1, Summer Semester		
CS&D 833	Occupational Audiology	2
CS&D 892	Clerkship in Audiology II	3
Year 2, Fall Semester		
CS&D 835	Clinical Research Methods	3
CS&D 860	Physiological Assessment in Audiology II	2
CS&D 861	Laboratory in Physiological Assessment of the Auditory System II	1
CS&D 845	The Human Balance System: Structure, Assessment, and Rehabilitation	2
CS&D 846	The Human Balance System: Laboratory	1
CS&D 892	Clerkship in Audiology II	2
Year 2, Spring Semester		
CS&D 849	Geriatric Audiology: Diagnosis and Rehabilitation	2
CS&D 862	Auditory and Vestibular Pathologies II	3
CS&D 865	Practice Management	2
CS&D 866	Amplification Systems II	2
CS&D 892	Clerkship in Audiology II	2
CS&D 899	Capstone Study in Audiology	1
Year 2, Summer Semester		
CS&D 806	Professional Issues: Medical Issues	1
CS&D 893	Clerkship in Audiology III	3
Year 3, Fall Semester		
CS&D 863	Implantable Auditory Prostheses	2
CS&D 834	Counseling in Audiology	2
CS&D 899	Capstone Study in Audiology	3
CS&D 893	Clerkship in Audiology III	3
Year 3, Spring Semester		
CS&D 865	Practice Management (alternate years)	2
CS&D 867	School Methods for Audiologists	1
CS&D 836	Pediatric Habilitation/Rehabilitation	3
CS&D 899	Capstone Study in Audiology	3
CS&D 893	Clerkship in Audiology III	3

Year 3, Summer Semester

CS&D 894	Externship in Audiology	3
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Year 4, Fall Semester

CS&D 921	Seminar-Problems in Audiology	3
CS&D 894	Externship in Audiology	3

Year 4, Spring Semester

CS&D 921	Seminar-Problems in Audiology	3
CS&D 894	Externship in Audiology	3

POLICIES**GRADUATE SCHOOL POLICIES**

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PRIOR COURSEWORK**Graduate Work from Other Institutions**

No prior coursework from other institutions is allowed.

UW–Madison Undergraduate

Up to 6 credits from a UW–Madison undergraduate degree are allowed to count toward the degree. If the courses are numbered 500 and above, the credits may be counted toward the overall graduate credit requirement; if the courses are numbered 700 or above, they may count toward both the minimum graduate degree requirements and minimum graduate coursework (50%) requirement.

UW–Madison University Special

No prior coursework from UW–Madison University Special career is allowed.

PROBATION

A student failing to maintain a minimum GPA of 3.0 will be placed on academic probation and will be required to raise his/her GPA to 3.0 or above in the following semester. If the GPA is not raised to 3.0 or above in the following semester, the student will be dismissed from the program. A student receiving a course grade less than "B" shall receive a written warning reminding the student of the "no more than two grades below a "B" rule and shall be placed on academic probation.

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improvement plan may require the student to retake an examination or even repeat an entire course if deemed necessary by the academic instructor. If a student has an improvement plan, he/she should communicate regularly with each academic instructor to discuss the plan each semester the plan is in place. The student is responsible for scheduling these communications.

In addition to the department's probation policy, the Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

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CREDITS PER TERM ALLOWED

14 credits

TIME CONSTRAINTS

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

Consult the program for additional program-specific time constraints.

OTHER

n/a

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PEOPLE

Information about faculty and staff can be found on the program's website (<https://csd.wisc.edu/directory>).

COMMUNICATION SCIENCES AND DISORDERS, DOCTORAL MINOR

At least 9 credits in communication sciences and disorders courses are required for a minor completed by students from other programs. The minor advisor will work with the student to plan an appropriate sequence of coursework.

PEOPLE

Information about faculty and staff can be found on the program's website (<https://csd.wisc.edu/peopleofCSD.htm>).

COMMUNICATION SCIENCES AND DISORDERS, M.S.

The department offers graduate programs leading to the M.S. and Ph.D. in communication sciences and disorders. An additional program in the department leads to the Au.D. in audiology. The graduate program provides the opportunity for study in the areas of audiology, speech–language pathology, hearing science, language science, and speech science. The purpose of the graduate program is to prepare clinicians, researchers, and teachers who possess a solid foundation in both the theoretical and applied aspects of the discipline of communication sciences and disorders.

The M.S. program has two tracks. The **Speech-Language Pathology track**¹ is a two-year professional program designed to prepare students for clinical work. It is accredited by the Council on Academic Accreditation of the American Speech–Language–Hearing Association. At the master's level, supervised diagnostic and therapy experiences with children and adults are provided in a variety of on- and off-campus clinical settings. This program meets the academic and clinical-practicum requirements for clinical certification set by the American Speech–Language–Hearing Association (ASHA). Opportunities are also available for pursuing a nonclinical program at the master's level.

The **Normal Aspects of Speech, Language, and Hearing track**¹ is a non-clinical degree. Most students complete this degree as a first step toward a Ph.D.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

ADMISSIONS

The program is open to individuals who have completed an undergraduate degree and who meet the minimum admission requirements of the Graduate School and the department. Entering students who do not have undergraduate majors in communicative disorders will typically be required to take prerequisite course work, which may lengthen the time required to earn a graduate degree.

Apply Online

Fall Application Deadline: January 15

ADMISSION REQUIREMENTS

All potential master's degree applicants must meet the Graduate School's admission requirements, as well as department-specific requirements.

GRADUATE SCHOOL REQUIREMENTS

UW-Madison Graduate School Requirements for Admission (<http://grad.wisc.edu/admissions/requirements>)

- A minimum grade point average (GPA) of 3.0 (4.0 = A); however, the students we accept into the program typically have much higher GPAs

PROGRAM PREREQUISITES

You must complete the following undergraduate courses before beginning graduate course work:

Code	Title	Credits
CS&D 201	Speech Science	3
CS&D 202	Normal Aspects of Hearing	3
CS&D 240	Language Development in Children and Adolescents	3
CS&D 315	Phonetics and Phonological Development	3
CS&D 318	Voice, Craniofacial and Fluency Disorders	3
CS&D 320	Introduction to Audiology	3
CS&D 371	Pre-Clinical Observation of Children and Adults	3
CS&D 425	Auditory Rehabilitation	3
CS&D 440	Child Language Disorders, Assessment and Intervention	3

In addition to the above courses, you will need a course in each of the following areas:

- Biological sciences
- Physical sciences (chemistry or physics)
- Statistics
- Social/behavioral sciences

The American Speech–Language–Hearing Association (ASHA) standards now specify that a course in each of these areas is required for ASHA certification. For additional details, visit ASHA's website Standard IV-A (<http://www.asha.org/Certification/2014-Speech-Language-Pathology-Certification-Standards>).

If you choose to complete prerequisites at UW–Madison before applying for graduate study, you must apply to the Capstone Program (<http://guide.wisc.edu/nondegree/capstone/communication-sciences-disorders-capstone-certificate>). These courses typically can be completed within two semesters. Equivalent courses from another university or department will be considered on a case-by-case basis.

LETTERS OF RECOMMENDATION

These letters should address your potential for academic success in graduate school. At least two should come from instructors who have knowledge of your academic performance. The third may come from a clinical supervisor, employer, or other individual who has knowledge of

your academic potential and likelihood for success in graduate school. **No more than three.**

REASONS FOR GRADUATE STUDY

This is an opportunity for you to highlight experiences, related skills, and personal attributes which make you an exceptional candidate. 1-3 pages, single-spaced.

APPLICATION FEE

UW–Madison charges a non-refundable \$75 application fee that must be paid by credit card (Master Card or Visa) or debit card. In addition to the \$75 application fee, non U.S. citizens will be charged a \$6 international document processing fee.

There are also limited application fee grants available. Check the UW–Madison Graduation Application Fee grants (<https://grad.wisc.edu/admissions/feegrants>) to see if you qualify. Please note that fee grant applications must be submitted before you application and can take two weeks to process so you should plan to submit fee grant applications by December 1st with consideration of holidays.

CV OR RESUME

Include honors and awards

TRANSCRIPTS

Upload a copy of your unofficial transcripts. These show grades earned at every college or university you have attended, including study abroad. If admitted, the Graduate School will request official transcripts.

SUPPLEMENTAL APPLICATION OFFICIAL GRE SCORES

Use institution code 1846. You may take the test more than once; we will consider the scores from your best testing date. Only **official** scores, submitted directly from ETS, from within the last five years and submitted by the application deadline will be accepted.

OFFICIAL TOEFL SCORES

If your native language is not English, or your undergraduate instruction was not in English, a TOEFL score is required. Use institution code 1846. You may take the test more than once; we will consider the scores from your best testing date. Only **official** scores, submitted directly from ETS, from within the last five years and submitted by the application deadline will be accepted.

LETTERS OF RECOMMENDATION

These letters should address your potential for academic success in graduate school. At least two should come from instructors who have knowledge of your academic performance. The third may come from a clinical supervisor, employer, or other individual who has knowledge of your academic potential and likelihood for success in graduate school. **No more than three.**

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There are also limited application fee grants available. Check the UW–Madison Graduation Application Fee grants (<https://grad.wisc.edu/admissions/feegrants>) to see if you qualify. Please note that fee grant applications must be submitted before you application and can take two weeks to process so you should plan to submit fee grant applications by December 1st with consideration of holidays.

CV OR RESUME

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TRANSCRIPTS

Upload a copy of your unofficial transcripts. These show grades earned at every college or university you have attended, including study abroad. If admitted, the Graduate School will request official transcripts.

SUPPLEMENTAL APPLICATION

OFFICIAL GRE SCORES

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NOTABLE ADVICE

- **Submit all materials one week prior to deadline.** Late and incomplete applications will not be considered.
- **File your application early.** Do not wait until you can gather all your materials. It is better to file early and send additional items as they become available.
- **Track your application status.** After submission of your application, you will receive a link to a personal web page where you can track your application status. We update this page as we receive your materials, usually within two weeks of receipt.
- For more information, review the UW–Madison Graduate School “Steps to Apply” (<http://grad.wisc.edu/admissions/process>) and “Admissions FAQ” (<http://grad.wisc.edu/admissions/faq>).

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further

funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Financial assistance, sometimes available to graduate students in communication sciences and disorders, consists of scholarships, fellowships, traineeships, and project and research assistant positions. Financial assistance is very limited and varies from year to year. Students who are considering applying for financial aid should contact the department for further information.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement	Speech–Language Pathology track: 36 credits Normal Aspects of Speech, Language, and Hearing track: 30 credits
Minimum Residence Credit Requirement	Speech–Language Pathology track: 36 credits Normal Aspects of Speech, Language, and Hearing track: 30 credits

Minimum Graduate Coursework Requirement Speech–Language Pathology track: All but 3 credits of the minimum 36 credits for the degree must be taken in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle>).

Normal Aspects of Speech, Language, and Hearing track: All of the minimum number of credits (30) must be taken in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the University's Course Guide (<http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle>).

Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.
Assessments and Examinations	Contact the program for information on required assessments and examinations.
Language Requirements	Contact the program for information on any language requirements.

REQUIRED COURSES

Speech–Language Pathology Track ¹

Code	Title	Credits
Year 1, Fall Semester		
CS&D 503	Neural Mechanisms of Speech, Hearing and Language	3
CS&D 703	Language and Learning Disorders of Children	3
CS&D 706	Management and Assessment of Voice Disorders	3
CS&D 790	Practicum in Communicative Disorders	2
Year 1, Spring Semester		
CS&D 704	Acquired Language and Cognitive-Communication Disorders in Adults	3
CS&D 705	Motor Speech Disorders/Augmentative and Alternative Communication	3
CS&D 707	Swallowing Disorders	2-3
CS&D 709	Language Development and Disorders in School Age Populations: School Methods and Procedures	3
CS&D 713	Introduction to Medical Speech Pathology	1
CS&D 790	Practicum in Communicative Disorders	2
Summer Semester		
CS&D 713	Introduction to Medical Speech Pathology	1

CS&D 790	Practicum in Communicative Disorders	2
CS&D 424	Sign Language I (elective)	2

Year 2, Fall Semester

CS&D 708	Fluency and Phonological Disorders	3
CURRIC 720	School Practicum in Communication Sciences & Disorders	5
or CS&D 790	Practicum in Communicative Disorders	
CS&D 790	Practicum in Communicative Disorders (Advanced Practicum, optional)	1-5

Year 2, Spring Semester

CS&D 752	Capstone in Communication Sciences and Disorders: Integration of Clinical and Research Methods	3
CURRIC 720	School Practicum in Communication Sciences & Disorders (Medical Site)	5
or CS&D 790	Practicum in Communicative Disorders	
CS&D 790	Practicum in Communicative Disorders (Advanced Practicum, optional)	1-5

Electives

CS&D 434	Sign Language II	2
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¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Normal Aspects of Speech, Language, and Hearing (non-clinical) Track ¹

A minimum of 36 credits and a thesis is required. While the curriculum is individually designed for the specific student, it includes many of the same academic courses as in the Speech-Language Pathology Track curriculum above.

Because an emphasis on Normal Aspects of Speech, Language, and Hearing does not include clinical practice, CURRIC 720, CS&D 790, and CS&D 713 are not part of the curriculum.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://csd.wisc.edu/wp-content/uploads/sites/137/2017/10/2017-2018-MS-Student-Handbook.pdf>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

No prior coursework from other institutions is allowed.

UW–Madison Undergraduate

Up to 6 credits from a UW–Madison undergraduate degree are allowed to count toward the degree. If the courses are numbered 500 and above, the credits may be counted toward the overall graduate credit requirement; if the courses are numbered 700 or above, they may count toward both the minimum graduate degree requirement and minimum graduate coursework (50%) requirement.

UW–Madison University Special

No prior coursework from UW–Madison University Special career is allowed.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

14 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Ph.D. students typically receive funding in the form of research assistantships and work in their advisor's research lab.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. (Foundations of Practice) Possess foundational knowledge about basic human communication and swallowing processes.
2. (Foundations of Practice) Identify sources and assemble evidence pertaining to questions or challenges in communication sciences and disorders.
3. (Foundations of Practice) Articulate and critique the theories, research methods, and approaches in speech-language pathology.
4. (Foundations of Practice) Integrate research principles into evidence-based clinical practice.
5. (Foundations of Practice) Apply research findings in the provision of patient care.
6. (Foundations of Practice) Communicate complex ideas in a clear and understandable manner.
7. (Prevention, Identification and Assessment) Conduct screening and prevention procedures.
8. (Prevention, Identification and Assessment) Perform chart review and collect case history from patient interviews and/or relevant others.
9. (Prevention, Identification and Assessment) Select appropriate evaluation instruments/procedures.
10. (Prevention, Identification and Assessment) Administer and score diagnostic tests correctly.
11. (Prevention, Identification and Assessment) Adapt evaluation procedures to meet patient needs.
12. (Prevention, Identification and Assessment) Possess knowledge of etiologies and characteristics for each communication and swallowing disorder.
13. (Prevention, Identification and Assessment) Interpret and formulate diagnosis from test results, history, and other behavioral observations.
14. (Prevention, Identification and Assessment) Make appropriate recommendations for intervention.
15. (Prevention, Identification and Assessment) Complete administrative functions and documentation necessary to support evaluation.
16. (Prevention, Identification and Assessment) Make appropriate recommendations for patient referrals.
17. (Intervention) Develop appropriate treatment plans with measurable and achievable goals.

18. (Intervention) Collaborate with clients/patients and relevant others in the planning process.
19. (Intervention) Implement treatment plans.
20. (Intervention) Select and use appropriate materials/instrumentation.
21. (Intervention) Sequence tasks to meet objectives.
22. (Intervention) Provide appropriate introduction/explanation of tasks.
23. (Intervention) Measure and evaluate patients' performance and progress.
24. (Intervention) Use appropriate models, prompts, or cues.
25. (Intervention) Adapt treatment session to meet individual patient needs.
26. (Intervention) Complete administrative functions and documentation necessary to support treatment.
27. (Intervention) Identify and refer patients for services as appropriate.
28. (Professional Conduct) Recognize and apply principles of ethical and professional conduct.
29. (Professional Conduct) Apply skills for life-long learning.
30. (Professional Conduct) Apply intercultural knowledge and competence in their practice.
31. (Professional Conduct) Demonstrate teamwork and problem solving.
32. (Professional Conduct) Possess knowledge of contemporary professional issues and advocacy.
33. (Professional Conduct) Communicate effectively, recognizing the needs, values, preferred mode of communication, and cultural/linguistic background of the patient, family, caregiver, and relevant others.
34. (Professional Conduct) Provide counseling and supportive guidance regarding communication and swallowing disorders to patients, family, caregivers, and relevant others.

PEOPLE

Information about faculty and staff can be found on the program's website (<https://csd.wisc.edu/peopleofCSD.htm>).

ACCREDITATION

Accreditation

Council on Academic Accreditation in Audiology and Speech-Language-Pathology (<https://caa.asha.org>)

Accreditation Status: Accredited. Next Accreditation Review: 2019.

Certification/Licensure

American Speech–Language–Hearing Association (<https://www.asha.org>)

Praxis Pass Rate

Year of Exam	UW-Madison Graduates: All Attempts	National All Attempt:
2016-2017	100%	Not Available
2015-2016	100%	Not Available
2014-2015	100%	Not Available
2013-2014	100%	Not Available

COMMUNICATION SCIENCES AND DISORDERS, PH.D.

The department offers graduate programs leading to the M.S. and Ph.D. in communication sciences and disorders. An additional program in the department leads to the Au.D. in audiology. The graduate program provides the opportunity for study in the areas of audiology, speech–language pathology, hearing science, language science, and speech science. The purpose of the graduate program is to prepare clinicians, researchers, and teachers who possess a solid foundation in both the theoretical and applied aspects of the discipline of communication sciences and disorders.

The Ph.D. program provides relevant classroom and laboratory experiences for the scholar–researcher interested in communication processes and communicative disorders. A student's academic program will consist of course work within the department and in related areas such as psychology, linguistics, statistics, computer science, and education. Students completing the program will be prepared for careers as university professors, laboratory researchers, and senior clinicians.

Individual programs can be designed for students who wish to pursue professional training/clinical certification (in either speech–language pathology or audiology) and the Ph.D. degree. Such students follow a modified sequence of course work, clinical training, and research experience in order to satisfy all academic and certification requirements in five to six years.

ADMISSIONS

The program is open to individuals who have completed an undergraduate degree and who meet the minimum admission requirements of the Graduate School and the department. Entering students who do not have undergraduate majors in communicative disorders will typically be required to take prerequisite course work, which may lengthen the time required to earn a graduate degree.

Apply Online

Fall Application Deadline: January 1st

ADMISSION REQUIREMENTS

All potential doctoral degree applicants must meet the Graduate School's admission requirements, as well as department-specific requirements.

GRADUATE SCHOOL REQUIREMENTS

UW–Madison Graduate School Requirements for Admission (<http://grad.wisc.edu/admissions/requirements>)

- A minimum grade point average (GPA) of 3.0 (4.0=A); however, the students we accept into the program typically have much higher GPAs

LETTERS OF RECOMMENDATION

These letters should address your potential for academic success in graduate school. At least two should come from instructors who have knowledge of your academic performance. The third may come from a clinical supervisor, employer, or other individual who has knowledge of your academic potential and likelihood for success in graduate school. **No more than three.**

REASONS FOR GRADUATE STUDY

This is an opportunity for you to highlight experiences, related skills, and personal attributes which make you an exceptional candidate. 1-3 pages, single-spaced.

APPLICATION FEE

UW–Madison charges a non-refundable \$75 application fee that must be paid by credit card (Master Card or Visa) or debit card. In addition to the \$75 application fee, non U.S. citizens will be charged a \$6 international document processing fee.

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CV OR RESUME

Include honors and awards

TRANSCRIPTS

Upload a copy of your unofficial transcripts. These show grades earned at every college or university you have attended, including study abroad. If admitted, the Graduate School will request official transcripts.

SUPPLEMENTAL APPLICATION

Fill out the supplemental application that is found in the online graduate school application.

OFFICIAL GRE SCORES

Use institution code 1846. You may take the test more than once; we will consider the scores from your best testing date. Only **official** scores, submitted directly from ETS, from within the last five years and submitted by the application deadline will be accepted.

OFFICIAL TOEFL SCORES

If your native language is not English, or your undergraduate instruction was not in English, a TOEFL score is required. Use institution code 1846. You may take the test more than once; we will consider the scores from your best testing date. Only **official** scores, submitted directly from ETS, from within the last five years and submitted by the application deadline will be accepted.

NOTABLE ADVICE

- Submit all materials one week prior to deadline. Late and incomplete applications will not be considered.
- File your application early. Do not wait until you can gather all your materials. It is better to file early and send additional items as they become available.
- Track your application status. After submission of your application, you will receive a link to a personal web page where you can track your application status. We update this page as we receive your materials, usually within two weeks of receipt.
- For more information, review the UW–Madison Graduate School “Steps to Apply” (<http://grad.wisc.edu/admissions/process>) and “Admissions FAQ” (<http://grad.wisc.edu/admissions/faq>).

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Financial assistance, sometimes available to graduate students in communication sciences and disorders, consists of scholarships, fellowships, traineeships, and project and research assistant positions. Financial assistance is very limited and varies from year to year. Students who are considering applying for financial aid should contact the department for further information.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 54 credits

Minimum Residence Credit Requirement 54 credits

Minimum Graduate Coursework Requirement At least 75% of the minimum number of credits (54) must be taken in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Doctoral students are required to take a comprehensive preliminary/oral examination after they have cleared their record of all Incomplete and Progress grades (other than research and thesis). Deposit of the doctoral dissertation in the Graduate School is required.

Language Requirements Contact the program for information on any language requirements.

Doctoral Minor/Breadth Requirements All doctoral students are required to complete a minor.

REQUIRED COURSES

The plan of study must encompass an area of specialization chosen from speech pathology, audiology, language disorders, and normal aspects of speech, hearing and language. Although there are no specific course requirements for the major, the study plan should be comprehensive in

scope and should be tailored according to the student's research and academic needs. Students must also satisfy a core requirement by taking the following seminar/courses:

1. Grant writing (3 credits)
2. Research methodology (3 credits). This may include an independent study/directed readings course or a course from outside of the department focused broadly on something related to research methods, depending on the particular student interest.
3. Professional seminar (prosem) (4 semesters; 8 credits)
4. Teaching methods (1 credit or audit).

For the 2016- 2017 academic year, students will complete the proseminar requirement by registering for a 2 credit independent study each semester with their individual academic advisor, who will be responsible for assigning a prosem grade. Student are expected to attend the weekly prosem lectures and attend any doctoral student discussion groups associated with the weekly lectures.

The teaching requirement can be met by taking a 1 -credit seminar taught within or outside

the department, a 1-credit independent study with the advisor that involves lecturing or developing course materials or student projects, or an independent study with the major advisor that involves reading and discussing scholarly writings that concern teaching. The form of the teaching credit should be discussed with the major advisor and must have the advisor's approval.

All doctoral students are expected to become proficient in statistical methods. Students are required to have 9 credits of statistical methods at a minimum, which must also include a course on research methods or experimental design. Many students satisfy this requirement by taking courses in the Educational Psychology department or the Statistics department. For instance, a rigorous and worthwhile statistics sequence could be STAT/F&W ECOL/HORT 571 Statistical Methods for Bioscience I and STAT/F&W ECOL/HORT 572 Statistical Methods for Bioscience II plus an experimental design class, such as ED PSYCH 762 Introduction to the Design of Educational Experiments.

Code	Title	Credits
Ph.D. Core Course Offerings		
CS&D 900	Seminar-Speech Science (4 semesters, 2 cr. each semester)	2
CS&D 900	Seminar-Speech Science (Grant Writing)	3
CS&D 999	Independent Studies (Teaching Methods)	1 or audit

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://csd.wisc.edu/wp-content/uploads/sites/137/2017/10/2017-2018-PhD-Student-Handbook.pdf>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count coursework from other institutions. In no case will coursework be considered that was earned ten or more years prior to admission to the Ph.D.

UW–Madison Undergraduate

With program approval, students are allowed to count up to 7 credits from coursework for a UW–Madison undergraduate degree. In no case will coursework be considered that was earned ten or more years prior to admission to the Ph.D.

UW–Madison University Special

No prior coursework taken as a UW–Madison University Special student is allowed.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

When you are admitted as a doctoral student, you will choose an academic advisor who will serve as your sponsor and mentor for the duration of the program. You may change advisors at any time in the course of your program, provided you and your advisor agree on this.

Your academic advisor may be a regular faculty member in the Department of Communication Sciences and Disorders, or may be affiliate or joint faculty. If an affiliate faculty member is serving as your academic advisor, a regular faculty member must be assigned as your departmental contact to regularly review your progress and adherence to departmental requirements.

Every graduate student is required to have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies. An advisor generally serves as the thesis advisor. Students can be suspended from the Graduate School if they do not have an advisor.

To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

CREDITS PER TERM ALLOWED

13 credits

TIME CONSTRAINTS

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their

absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within 5 years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

OTHER

Ph.D. students typically receive funding in the form of research assistantships and work in their advisor's research lab.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. (Foundations of Research) Possess foundational knowledge about the particular subject area of the chosen area, and be fully conversant with the classic and contemporary literature.
2. (Foundations of Research) Master data collection techniques specific to their chosen area of research.
3. (Foundations of Research) Fully conversant with the theoretical issues and tensions within their chosen area of research.
4. (Foundations of Research) Gain high-level knowledge and expertise in the statistical analysis of research data and graphical approaches to exploration of data sets.
5. (Foundations of Research) Communicate complex ideas in a clear and understandable manner.
6. (Dissertation) Design and execute an original experiment (or experiments) that clearly fills a gap in the existing literature and is worthy of publication(s) in peer-reviewed journals.
7. (Dissertation) Skill, experience, and knowledge base to defend the dissertation work to a committee of five faculty members.
8. (Professional Conduct) Design and conduct experiments.
9. (Professional Conduct) Formulate research questions that are based on sound analyses of existing literature, and that show evidence of logical argument.
10. (Professional Conduct) Understand how to examine data for patterns that are meaningful and patterns that reflect likely data collection errors.
11. (Professional Conduct) Write research proposals and learn to develop carefully argued proposals and explanations.
12. (Professional Conduct) Make presentations of their research at national and international conferences.

13. (Professional Conduct) Pass a summary exam (6 hours written, 2 hours oral) that admits them to candidacy for the PhD degree.

PEOPLE

Information about faculty and staff can be found on the program's website (<https://csd.wisc.edu/peopleofCSD.htm>).

COMMUNITY AND ENVIRONMENTAL SOCIOLOGY

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE PROFESSIONAL/CERTIFICATES

- Community and Environmental Sociology, Doctoral Minor (p. 356)

COMMUNITY AND ENVIRONMENTAL SOCIOLOGY, DOCTORAL MINOR

The mission of the Department of Community and Environmental Sociology is to advance knowledge, teaching, and outreach concerning the relationships between human communities (where people live, work, and play) and their biophysical environment. Learning goals for a doctoral minor in community and environmental sociology are to:

1. understand how social science arguments are constructed and evaluated;
2. develop the ability to assess data quality and understand whether data are appropriate to answer specific questions; and
3. learn general theories on basic social processes, especially those related to the relationships among society and the environment and the social organization of communities.

ADMISSIONS

For more information about the minor, contact:

Charlotte Frasca
Graduate Program Advisor
8127 Sewell Social Science Building
1180 Observatory Drive
frasca@ssc.wisc.edu
608-262-3805

REQUIREMENTS

An Option A minor in Community and Environmental Sociology is composed of 9 credits of graduate-level coursework. Students may enroll in any graduate-only courses (i.e., those numbered 700–999). They may also enroll in any of the advanced graduate–undergraduate courses (i.e., those numbered 300–699) that are either specifically designed for graduate students or assess graduate students separately from undergrads. Such courses carry this designation in the Course

Guide: **Graduate 50%: Y.** A maximum of 3 credits of independent study is allowed.

COMPARATIVE LITERATURE AND FOLKLORE STUDIES

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Comparative Literature and Folklore Studies, M.A. (p. 356)
- Comparative Literature and Folklore Studies, Ph.D. (p. 364)
- Comparative Literature, Doctoral Minor (p. 372)
- Folklore, Doctoral Minor (p. 373)

PEOPLE

Faculty: Professors Dharwadker, Gilmore (also Landscape Architecture), Layoun, Livorni (chair, also French and Italian), Rosenblum (also Jewish Studies); Associate Professors Livanos, Statkiewicz; Assistant Professors Fielder, Grunewald, Neyrat, Wells. **Affiliate Faculty:** Adler (German, Nordic, and Slavic), Casid (Art History), Garlough (also Gender and Women's Studies), Goodkin (French and Italian), Guyer (English), Kern (Asian Languages and Cultures), Longinovic (German, Nordic, and Slavic), Valentine (Linguistics); Associate Professors Kapust (Political Science); **International Affiliate Faculty:** Ramalho de Sousa Santos (University of Coimbra, Portugal). See also Faculty (<http://clfs.wisc.edu/people/faculty>) on the department website.

COMPARATIVE LITERATURE AND FOLKLORE STUDIES, M.A.

Admissions to the Comparative Literature and Folklore Studies M.A. have been suspended as of summer 2018. If you have any questions, please contact the department (complit@lss.wisc.edu).

Graduate study in the Department of Comparative Literature and Folklore Studies (CLFS) emphasizes the active research into and theorizing of the comparative, the literary, the folkloric, and the cultural in a global context. CLFS faculty and students investigate cultures within, across, and beyond linguistic, regional, and national boundaries. The comparative and pluri-lingual nature of CLFS at UW–Madison enables the careful and informed study of new and evolving theories and cultural methodologies as well as of prior, present, and emerging cultural and literary practices and phenomena.

CLFS students study problems and create public projects exploring culture, genre, literary and cultural movements, mode, performance, periodization, theory and criticism, tradition, translation, and transmission. They engage problems and questions concerning the interaction and shifting boundaries of 'elite' and 'folk' literatures and other forms of creative expression and their transformation in their interaction; folklore and literature with other arts or other disciplines; and the relationships between creative expression and economic, sociopolitical, traditional, and other historical structures and issues, including ideological and value formations.

In addition to professional research and communication in the academic fields of comparative literature and folklore studies, CLFS is committed to public humanities projects that place professional expertise in the service of communities and publics.

Graduate study leads to the M.A. and Ph.D. degrees in CLFS and must be in either a comparative literature named option or a folklore studies named option.

The department also offers doctoral minors in comparative literature and in folklore to interested Ph.D. candidates in other degree programs. At the beginning of study in the minor program, all students seeking a comparative literature or folklore doctoral minor should contact the CLFS director of graduate studies concerning coursework for the minor. Completion of the minor will be certified by either the director of graduate studies or the department chair.

ADMISSIONS

Admissions to the Comparative Literature and Folklore Studies M.A. have been suspended as of summer 2018. If you have any questions, please contact the department (complit@lss.wisc.edu).

Students apply to one of the named options:

- Comparative Literature M.A. (p. 359)
- Folklore Studies M.A. (p. 361)

All entering students are admitted into one of the two named options in the M.A. program. Students are accepted into the Ph.D. program upon successful completion of the Second-Year Examination.

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

Note: The major is currently non-admitting. Students are admitted through one of the named options (sub-majors) below (p. 358).

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum	30 credits
Credit Requirement	
Minimum	16 credits
Residence Credit Requirement	
Minimum Graduate Coursework Requirement	Successful completion of the master's degree requires 30 credit hours of coursework. This requirement includes that at least 50 percent of these credit hours must be received in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.
Overall Graduate GPA Requirement	3.5 GPA required.
Other Grade Requirements	None.

Assessments and Examinations Second Year Examination
The Second Year Examination is a written examination administered by the program followed by an oral defense.

M.A. named option in Folklore Studies: In consultation with the student's supervisor, a student pursuing the Folklore named option may elect to produce an M.A. thesis. The thesis will be presented to a committee of three faculty members, including the supervisor, and defended in an oral examination. Depending on the length and nature of the thesis project, and subject to the supervisor's approval, this project may substitute for all or part of the second-year exam. If a student opts for the M.A. thesis option, that thesis project will be the subject of the master's oral examination. Otherwise, the second year examination will be the subject of the Master's Oral Examination.

Students who are not interested in pursuing the Ph.D. may elect to offer an M.A. thesis in place of the seminar requirement. In such cases, the student must work under the direction of a department faculty member who will act as supervisor of the thesis. The thesis will be presented to a committee of three faculty members, including the supervisor, and defended in an oral examination. A bound copy of the thesis must be deposited with the department. Otherwise, the Second Year Examination will be the subject of the Master's Oral Examination.

Language Requirements Second Language: An examination in a second language (other than English) must be taken by the end of the second semester of graduate study and before the Second Year Examination.

In the event that the linguistic tradition under examination cannot be covered by a member of the comparative literature and folklore studies faculty, the advisor will invite an appropriate member of the UW–Madison faculty to assist in the administration of the examination.

REQUIRED COURSES

Select a Named Option (p. 358) for courses required.

NAMED OPTIONS (SUB-MAJORS)

A named option is a formally documented sub-major within an academic major program. Named options appear on the transcript with degree conferral. Students pursuing the Master of Arts in Comparative Literature and Folklore Studies must select one of the following named options:

- Comparative Literature and Folklore Studies: Comparative Literature, M.A. (p. 359)
- Comparative Literature and Folklore Studies: Folklore Studies, M.A. (p. 361)

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies

beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://clfs.wisc.edu/sites/clfs.wisc.edu/files/Documents/CLFS%20Grad%20Handbook%20December%202016.pdf>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 9 credits of graduate coursework from other institutions, provided this coursework relates directly to the student's CLFS graduate studies. Coursework earned five or more years prior to admission to a master's degree may not be used to satisfy the CLFS degree requirements.

To apply credit for prior graduate coursework toward requirements the student should furnish the student's advisor and the director of graduate study with a transcript of the coursework and copies of work done in courses and syllabi, if available. This task should be completed in anticipation of the Second Year exam. Credits deemed eligible to apply toward requirements will be listed in the official form that the department provides to the Graduate School in preparation for the award of the master's degree.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

With program approval, students are allowed to count no more than 9 credits of coursework numbered 300 or above taken as a UW–Madison Special student. Coursework earned five or more years prior to admission to a Master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. An advisor is a faculty member from the major department responsible for

providing advice regarding graduate studies. An advisor generally serves as the thesis advisor. An advisor is assigned to incoming students but can be changed. Students can be suspended from the Graduate School if they do not have an advisor.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

The Second Year Examination must be taken in the fourth semester of graduate study. If a candidate enters the graduate program with an M.A. in comparative literature from another institution, the Second Year Examination must be taken in the second semester of graduate study. Students entering with an M.A. in another discipline may take the examination in either the second or the fourth semester.

The thesis, written in consultation with the major professor, must be completed no later than two semesters after thesis work begins.

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Because we are committed to supporting and working closely with our graduate students, we are able to accept only a limited number (2–3 students per year) of the many excellent applications we receive each year. The CLFS' admission form also serves as an application for fellowships and teaching assistantships. The deadline for all completed applications (and for fellowship consideration) for the fall semester is December 15.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Articulates, critiques, or elaborates the theories, research methods, and approaches to inquiry and schools of practice in comparative humanities.
2. Identifies sources and assembles evidence pertaining to questions or challenges in comparative humanities.
3. Demonstrates understanding of comparative humanities in a historical, social, or global context.
4. Selects and/or utilizes the most appropriate methodologies and practices.
5. Evaluates or synthesizes information to questions or challenges in comparative humanities.
6. Communicates clearly in ways appropriate to comparative humanities.

7. Recognizes and applies principles of ethical and professional conduct.

PEOPLE

Faculty: Professors Dharwadker, Gilmore (also Landscape Architecture), Layoun, Livorni (chair, also French and Italian), Rosenblum (also Jewish Studies); Associate Professors Livanos, Statkiewicz; Assistant Professors Fielder, Grunewald, Neyrat, Wells. **Affiliate Faculty:** Adler (German, Nordic, and Slavic), Casid (Art History), Garlough (also Gender and Women's Studies), Goodkin (French and Italian), Guyer (English), Kern (Asian Languages and Cultures), Longinovic (German, Nordic, and Slavic), Valentine (Linguistics); Associate Professors Kapust (Political Science); **International Affiliate Faculty:** Ramalho de Sousa Santos (University of Coimbra, Portugal). See *also* Faculty (<http://clfs.wisc.edu/people/faculty>) on the department website.

COMPARATIVE LITERATURE AND FOLKLORE STUDIES: COMPARATIVE LITERATURE, M.A.

Admissions to the Comparative Literature and Folklore Studies: Comparative Literature M.A. have been suspended as of summer 2018. If you have any questions, please contact the department (complit@lss.wisc.edu).

This is a named option within the Comparative Literature and Folklore Studies M.A. (p. 356)

ADMISSIONS

Admissions to the Comparative Literature and Folklore Studies: Comparative Literature M.A. have been suspended as of summer 2018. If you have any questions, please contact the department (complit@lss.wisc.edu).

Applicants to the graduate program in the CLFS should submit to the department a statement of purpose for graduate study, transcripts, letters of recommendation, a writing sample (in English) of no more than 15 pages, a list of foreign language and literature coursework, and Graduate Record Exam (GRE) scores. (International applicants should consult the department and the Graduate School website for information and additional application requirements regarding TOEFL, MELAB or IELTS tests.)

Admission to graduate study in the comparative literature named option requires advanced foreign language work at the literary level in at least one language other than English; the student's academic record should demonstrate the ability to work critically in at least two literatures (one of which may be English).

All entering students are admitted into one of the two named options in the M.A. program. Students are accepted into the Ph.D. program upon successful completion of the Second-Year Examination.

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

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Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement	30 credits
Minimum Residence Credit Requirement	16 credits

Minimum Graduate Coursework Requirement Successful completion of the master's degree requires 30 credit hours of coursework. This requirement includes that at least 50 percent of these credit hours must be received in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.

Overall Graduate GPA Requirement 3.5 GPA required.

Other Grade Requirements None.

Assessments and Examinations The required Second Year Examination is a written examination administered by the program followed by an oral defense.

Students who are not interested in pursuing the Ph.D. may elect to offer an M.A. thesis in place of the seminar requirement. In such cases, the student must work under the direction of a department faculty member who will act as supervisor of the thesis. The thesis will be presented to a committee of three faculty members, including the supervisor, and defended in an oral examination. A bound copy of the thesis must be deposited with the department. Otherwise, the Second Year Examination will be the subject of the Master's Oral Examination.

Language Requirements Second Language: An examination in a second language (other than English) must be taken by the end of the second semester of graduate study and before the Second Year Examination.

In the event that the linguistic tradition under examination cannot be covered by a member of the comparative literature and folklore studies faculty, the advisor will invite an appropriate member of the UW–Madison faculty to assist in the administration of the examination.

REQUIRED COURSES

Code	Title	Credits
COMP LIT 702	Problems in Comparative Studies	3
COMP LIT 771	Literary Criticism	3

At least one graduate level seminar in Comparative Literature and Folklore Studies

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

NAMED OPTION-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://clfs.wisc.edu/sites/clfs.wisc.edu/files/Documents/CLFS%20Grad%20Handbook>)

20December%202016.pdf) is the repository for all of the program's policies and requirements.

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Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 9 credits of graduate coursework from other institutions, provided this coursework relates directly to the student's CLFS graduate studies. Coursework earned five or more years prior to admission to a master's degree may not be used to satisfy the CLFS degree requirements.

To apply credit for prior graduate coursework toward requirements the student should furnish the student's advisor and the director of graduate study with a transcript of the coursework and copies of work done in courses and syllabi, if available. This task should be completed in anticipation of the Second Year exam. Credits deemed eligible to apply toward requirements will be listed in the official form that the department provides to the Graduate School in preparation for the award of the master's degree.

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1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. An advisor is a faculty member from the major department responsible for providing advice regarding graduate studies. An advisor generally serves as the thesis advisor. An advisor is assigned to incoming students but can be changed. Students can be suspended from the Graduate School if they do not have an advisor.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

The Second Year Examination must be taken in the fourth semester of graduate study. If a candidate enters the graduate program with an M.A. in comparative literature from another institution, the Second Year Examination must be taken in the second semester of graduate study. Students entering with an M.A. in another discipline may take the examination in either the second or the fourth semester.

The thesis, written in consultation with the major professor, must be completed no later than two semesters after thesis work begins.

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Because we are committed to supporting and working closely with our graduate students, we are able to accept only a limited number (2–3 students per year) of the many excellent applications we receive each year. The CLFS' admission form also serves as an application for fellowships and teaching assistantships. The deadline for all completed applications (and for fellowship consideration) for the fall semester is December 15.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PEOPLE

Faculty: Professors Dharwadker, Gilmore (also Landscape Architecture), Layoun, Livorni (chair, also French and Italian), Rosenblum (also Jewish Studies); Associate Professors Livanos, Statkiewicz; Assistant Professors Fielder, Grunewald, Neyrat, Wells. **Affiliate Faculty:** Adler (German, Nordic, and Slavic), Casid (Art History), Garlough (also Gender and Women's Studies), Goodkin (French and Italian), Guyer (English), Kern (Asian Languages and Cultures), Longinovic (German, Nordic, and Slavic), Valentine (Linguistics); Associate Professors Kapust (Political Science); **International Affiliate Faculty:** Ramalho de Sousa Santos (University of Coimbra, Portugal). See *also* Faculty (<http://clfs.wisc.edu/people/faculty>) on the department website.

COMPARATIVE LITERATURE AND FOLKLORE STUDIES: FOLKLORE STUDIES, M.A.

Admissions to the Comparative Literature and Folklore Studies: Folklore Studies M.A. have been suspended as of summer 2018. If you have any questions, please contact the department (complit@lss.wisc.edu).

This is a named option within the Comparative Literature and Folklore Studies M.A. (p. 356)

ADMISSIONS

Admissions to the Comparative Literature and Folklore Studies: Folklore Studies M.A. have been suspended as of summer 2018. If you have any questions, please contact the department (complit@lss.wisc.edu).

Applicants to the graduate program in the CLFS should submit to the department a statement of purpose for graduate study, transcripts, letters of recommendation, a writing sample (in English) of no more than 15 pages, a list of foreign language and literature coursework, and Graduate Record Exam (GRE) scores. (International applicants should consult the department and the Graduate School website for information and additional application requirements regarding TOEFL, MELAB or IELTS tests.)

Admission to graduate study in the comparative literature named option requires advanced foreign language work at the literary level in at least one language other than English; the student's academic record should demonstrate the ability to work critically in at least two literatures (one of which may be English).

All entering students are admitted into one of the two named options in the M.A. program. Students are accepted into the Ph.D. program upon successful completion of the Second-Year Examination.

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules.

Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement Successful completion of the master's degree requires 30 credit hours of coursework. This requirement includes that at least 50 percent of these credit hours must be received in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.

Overall Graduate GPA Requirement 3.5 GPA required.

Other Grade Requirements None.

Assessments and Examinations The required Second Year Examination is a written examination administered by the program followed by an oral defense.

In consultation with the student's supervisor, a student pursuing the Folklore named option may elect to produce an M.A. thesis. The thesis will be presented to a committee of three faculty members, including the supervisor, and defended in an oral examination. Depending on the length and nature of the thesis project, and subject to the supervisor's approval, this project may substitute for all or part of the second-year exam. If a student opts for the M.A. thesis option, that thesis project will be the subject of the master's oral examination. Otherwise, the second year examination will be the subject of the Master's Oral Examination.

Students who are not interested in pursuing the Ph.D. may elect to offer an M.A. thesis in place of the seminar requirement. In such cases, the student must work under the direction of a department faculty member who will act as supervisor of the thesis. The thesis will be presented to a committee of three faculty members, including the supervisor, and defended in an oral examination. A bound copy of the thesis must be deposited with the department. Otherwise, the Second Year Examination will be the subject of the Master's Oral Examination.

Language Requirements Second Language: An examination in a second language (other than English) must be taken by the end of the second semester of graduate study and before the Second Year Examination.

In the event that the linguistic tradition under examination cannot be covered by a member of the comparative literature and folklore studies faculty, the advisor will invite an appropriate member of the UW–Madison faculty to assist in the administration of the examination.

REQUIRED COURSES

Code	Title	Credits
Required Courses		
COMP LIT 702	Problems in Comparative Studies	3
FOLKLORE 510	Folklore Theory (or other Folklore course approved by advisor)	3

At least one graduate-level seminar in Comparative Literature and Folklore Studies

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

NAMED OPTION-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://clfs.wisc.edu/sites/clfs.wisc.edu/files/Documents/CLFS%20Grad%20Handbook%20December%202016.pdf>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 9 credits of graduate coursework from other institutions, provided this coursework relates directly to the student's CLFS graduate studies. Coursework earned five or more years prior to admission to a master's degree may not be used to satisfy the CLFS degree requirements.

To apply credit for prior graduate coursework toward requirements the student should furnish the student's advisor and the director of graduate study with a transcript of the coursework and copies of work done in courses and syllabi, if available. This task should be completed in anticipation of the Second Year exam. Credits deemed eligible to apply toward requirements will be listed in the official form that the department provides to the Graduate School in preparation for the award of the master's degree.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

With program approval, students are allowed to count no more than 9 credits of coursework numbered 300 or above taken as a UW–Madison Special student. Coursework earned five or more years prior to admission to a Master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. An advisor is a faculty member from the major department responsible for providing advice regarding graduate studies. An advisor generally serves as the thesis advisor. An advisor is assigned to incoming

students but can be changed. Students can be suspended from the Graduate School if they do not have an advisor.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

The Second Year Examination must be taken in the fourth semester of graduate study. If a candidate enters the graduate program with an M.A. in comparative literature from another institution, the Second Year Examination must be taken in the second semester of graduate study. Students entering with an M.A. in another discipline may take the examination in either the second or the fourth semester.

The thesis, written in consultation with the major professor, must be completed no later than two semesters after thesis work begins.

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Because we are committed to supporting and working closely with our graduate students, we are able to accept only a limited number (2–3 students per year) of the many excellent applications we receive each year. The CLFS' admission form also serves as an application for fellowships and teaching assistantships. The deadline for all completed applications (and for fellowship consideration) for the fall semester is December 15.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

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PEOPLE

Faculty: Professors Dharwadker, Gilmore (also Landscape Architecture), Layoun, Livorni (chair, also French and Italian), Rosenblum (also Jewish Studies); Associate Professors Livanos, Statkiewicz; Assistant Professors Fielder, Grunewald, Neyrat, Wells. **Affiliate Faculty:** Adler (German, Nordic, and Slavic), Casid (Art History), Garlough (also Gender and Women's Studies), Goodkin (French and Italian), Guyer (English), Kern (Asian Languages and Cultures), Longinovic (German, Nordic, and Slavic), Valentine (Linguistics); Associate Professors Kapust (Political Science); **International Affiliate Faculty:** Ramalho de Sousa Santos (University of Coimbra, Portugal). See also Faculty (<http://clfs.wisc.edu/people/faculty>) on the department website.

COMPARATIVE LITERATURE AND FOLKLORE STUDIES, PH.D.

Admissions to the Comparative Literature and Folklore Studies Ph.D. have been suspended as of summer 2018. If you have any questions, please contact the department (complit@lss.wisc.edu).

Graduate study in the Department of Comparative Literature and Folklore Studies (CLFS) emphasizes the active research into and theorizing of the comparative, the literary, the folkloric, and the cultural in a global context. CLFS faculty and students investigate cultures within, across, and beyond linguistic, regional, and national boundaries. The comparative and pluri-lingual nature of CLFS at UW–Madison enables the careful and informed study of new and evolving theories and cultural methodologies as well as of prior, present, and emerging cultural and literary practices and phenomena.

CLFS students study problems and create public projects exploring culture, genre, literary and cultural movements, mode, performance, periodization, theory and criticism, tradition, translation, and transmission. They engage problems and questions concerning the interaction and shifting boundaries of 'elite' and 'folk' literatures and other forms of creative expression and their transformation in their interaction; folklore and literature with other arts or other disciplines; and the relationships between creative expression and economic, sociopolitical, traditional, and other historical structures and issues, including ideological and value formations.

In addition to professional research and communication in the academic fields of comparative literature and folklore studies, CLFS is committed to public humanities projects that place professional expertise in the service of communities and publics.

Graduate study leads to the M.A. and Ph.D. degrees in CLFS and must be in either a comparative literature named option or a folklore studies named option.

The department also offers doctoral minors in comparative literature and in folklore to interested Ph.D. candidates in other degree programs. At the beginning of study in the minor program, all students seeking a comparative literature or folklore doctoral minor should contact the CLFS director of graduate studies concerning coursework for the minor. Completion of the minor will be certified by either the director of graduate studies or the department chair.

ADMISSIONS

Admissions to the Comparative Literature and Folklore Studies Ph.D. have been suspended as of summer 2018. If you have any questions, please contact the department (complit@lss.wisc.edu).

Students apply to one of the named options:

- Comparative Literature M.A. (p. 359)
- Folklore Studies M.A. (p. 361)

All entering students are admitted into one of the two named options in the M.A. program. Students are accepted into the Ph.D. program upon successful completion of the Second-Year Examination.

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

Note: The major is currently non-admitting. Students are admitted through one of the named options (sub-majors) below (p. 366).

MODE OF INSTRUCTION

Face to Face	Evening/Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Graduate Coursework Requirement 51 credits

Minimum Residence Credit Requirement 32 credits

Minimum Graduate Coursework Requirement Successful completion of the Ph.D. requires 51 credit hours of coursework. This requirement includes that at least 50 percent of these credit hours must be received in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.

Overall Graduate GPA Requirement 3.5 GPA required.

Other Grade Requirements None.

Assessments and Examinations Comprehensive Examinations

The comprehensive examinations, or "prelims," consist of three written examinations based on reading lists that have been approved by the advisor and the reading committees followed by an oral defense.

Dissertation

The dissertation is a written, substantial, and original contribution to knowledge guided by a dissertation committee consisting of the student's advisor and two members of the faculty of the department. The student will submit to the dissertation committee for approval a written proposal that will include a bibliography of primary and secondary source materials.

Upon completion of the dissertation, the student will be examined in an oral defense of the dissertation and related areas by members of the dissertation committee in concert with two additional members, at least one of which must be from a related discipline outside of the department.

Language Requirements Second language: An examination in a second language (other than English) must be taken by the end of the second semester of graduate study and before the Second Year Examination.

In the event that the linguistic tradition under examination cannot be covered by a member of the comparative literature and folklore studies faculty, the advisor will invite an appropriate member of the UW–Madison faculty to assist in the administration of the examination.

Third Language: A third language (other than English and the second language) proficiency must be demonstrated by the completion of an appropriate intermediate or advanced literature course with a grade of AB or better. This requirement must be satisfied before the Comprehensive (or "prelim") Examinations.

Fourth Language Reading Requirement: For students pursuing the Comparative Literature Ph.D. option, each candidate must demonstrate reading knowledge of at least one of the following languages: Sanskrit, Hebrew, Classical Greek, Latin, a Medieval language, or a major Asian or African language. This requirement is satisfied by the completion of an appropriate course with a grade of AB or better.

Doctoral Minor/ Breadth Requirements	All doctoral students are required to complete a 12-credit minor. Students may pursue a concentrated minor including the Option A or a distributed minor (Option B). Students in either of the named options in the CLFS Ph.D. program may pursue minors in their department as long as they do not have the same name as their named option.
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REQUIRED COURSES

Select a Named Option (p. 366) for courses required.

NAMED OPTIONS (SUB-MAJORS)

A named option is a formally documented sub-major within an academic major program. Named options appear on the transcript with degree conferral. Students pursuing the Ph.D. in Comparative Literature and Folklore Studies must select one of the following named options:

- Comparative Literature and Folklore Studies: Comparative Literature, Ph.D. (p. 367)
- Comparative Literature and Folklore Studies: Folklore Studies, Ph.D. (p. 370)

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

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PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 9 credits of graduate coursework from other institutions, provided this coursework relates directly to the student's CLFS graduate studies. Coursework earned five or more years prior to admission to a master's degree may not be used to satisfy the CLFS degree requirements.

To apply credit for prior graduate coursework toward requirements the student should furnish the student's advisor and the director of graduate study with a transcript of the coursework and copies of work done in courses and syllabi, if available. This task should be completed in anticipation of the Second Year exam. Coursework earned ten or more years prior to admission to the doctoral degree may not be used to satisfy the CLFS degree requirements.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

With program approval, students are allowed to count no more than 9 credits of coursework numbered 300 or above taken as a UW–Madison Special student. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. An advisor is a faculty member from the major department responsible for providing advice regarding graduate studies. The advisor also serves as the dissertation advisor. An advisor is assigned to incoming student but can be changed. Students can be suspended from the Graduate School if they do not have an advisor.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Comprehensive examinations must be taken only on completion of the requisite minimum degree credits.

Within six weeks of successful completion of the comprehensive examination, candidates must submit a working draft of a dissertation proposal their dissertation committee members.

The dissertation must be deposited within two weeks of completion of all degree requirements.

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Because we are committed to supporting and working closely with our graduate students, we are able to accept only a limited number (2–3 students per year) of the many excellent applications we receive each year. The CLFS' admission form also serves as an application for fellowships and teaching assistantships. The deadline for all completed applications (and for fellowship consideration) for the fall semester is December 15.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

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LEARNING OUTCOMES

1. Articulates research problems, potentials, and limits with respect to theory, knowledge, and practice in comparative humanities.
2. Formulates ideas, concepts, designs, and/or techniques beyond the current boundaries of knowledge in comparative humanities.
3. Creates research, scholarship, or performance that makes a substantive contribution.
4. Demonstrates breadth within their learning experiences.
5. Advances contributions in comparative humanities to society.
6. Communicates complex ideas in a clear and understandable manner.
7. Fosters ethical and professional conduct.

PEOPLE

Faculty: Professors Dharwadker, Gilmore (also Landscape Architecture), Layoun, Livorni (chair, also French and Italian), Rosenblum (also Jewish Studies); Associate Professors Livanos, Statkiewicz; Assistant Professors Fielder, Grunewald, Neyrat, Wells. **Affiliate Faculty:** Adler (German, Nordic, and Slavic), Casid (Art History), Garlough (also Gender and Women's Studies), Goodkin (French and Italian), Guyer (English), Kern (Asian Languages and Cultures), Longinovic (German, Nordic, and Slavic), Valentine (Linguistics); Associate Professors Kapust (Political Science); **International Affiliate Faculty:** Ramalho de Sousa Santos (University of Coimbra, Portugal). See also Faculty (<http://clfs.wisc.edu/people/faculty>) on the department website.

COMPARATIVE LITERATURE AND FOLKLORE STUDIES: COMPARATIVE LITERATURE, PH.D.

Admissions to the Comparative Literature and Folklore Studies: Comparative Literature Ph.D. have been suspended as of summer 2018. If you have any questions, please contact the department (complit@lss.wisc.edu).

This is a named option within the Comparative Literature and Folklore Studies, Ph.D. (p. 364)

ADMISSIONS

Admissions to the Comparative Literature and Folklore Studies: Comparative Literature Ph.D. have been suspended as of summer 2018. If you have any questions, please contact the department (complit@lss.wisc.edu).

Applicants to the graduate program in the CLFS should submit to the department a statement of purpose for graduate study, transcripts, letters of recommendation, a writing sample (in English) of no more than 15 pages, a list of foreign language and literature coursework, and Graduate Record Exam (GRE) scores. (International applicants should consult the department and the Graduate School website for information and additional application requirements regarding TOEFL, MELAB or IELTS tests.)

Admission to graduate study in the comparative literature named option requires advanced foreign language work at the literary level in at least one language other than English; the student's academic record should demonstrate the ability to work critically in at least two literatures (one of which may be English).

All entering students are admitted into one of the two named options in the M.A. program. Students are accepted into the Ph.D. program upon successful completion of the Second-Year Examination.

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement	51 credits
Minimum Residence Credit Requirement	32 credits
Minimum Graduate Coursework Requirement	Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.
Overall Graduate GPA Requirement	3.5 GPA required.
Other Grade Requirements	None.
Assessments and Examinations	<p>Comprehensive Examinations</p> <p>The comprehensive examinations, or "prelims," consist of three written examinations based on reading lists that have been approved by the advisor and the reading committees followed by an oral defense.</p> <p>Dissertation</p> <p>The dissertation is a written, substantial, and original contribution to knowledge guided by a dissertation committee consisting of the student's advisor and two members of the faculty of the department. The student will submit to the dissertation committee for approval a written proposal that will include a bibliography of primary and secondary source materials.</p> <p>Upon completion of the dissertation, the student will be examined in an oral defense of the dissertation and related areas by members of the dissertation committee in concert with two additional members, at least one of which must be from a related discipline outside of the department.</p>

Language Requirements Second language: An examination in a second language (other than English) must be taken by the end of the second semester of graduate study and before the Second Year Examination.

In the event that the linguistic tradition under examination cannot be covered by a member of the comparative literature and folklore studies faculty, the advisor will invite an appropriate member of the UW–Madison faculty to assist in the administration of the examination.

Third Language: A third language (other than English and the second language) proficiency must be demonstrated by the completion of an appropriate intermediate or advanced literature course with a grade of AB or better. This requirement must be satisfied before the Comprehensive (or "prelim") Examinations.

Fourth Language Reading Requirement: For students pursuing the Comparative Literature Ph.D. option, each candidate must demonstrate reading knowledge of at least one of the following languages: Sanskrit, Hebrew, Classical Greek, Latin, a Medieval language, or a major Asian or African language. This requirement is satisfied by the completion of an appropriate course with a grade of AB or better.

Doctoral Minor/Breadth Requirements All doctoral students are required to complete a 12-credit minor. Students may pursue a concentrated minor including the Option A or a distributed minor (Option B). Students in either of the named options in the CLFS Ph.D. program may pursue minors in their department so long as they do not have the same name as their named option.

REQUIRED COURSES

All M.A. requirements; COMP LIT 822 Seminar-Translation; at least two other graduate seminars in comparative literature and folklore studies; the requirements for a Ph.D. option; demonstration of proficiency in a third language by passing an intermediate literature course with a grade of AB or better; successful completion of the Ph.D. preliminary examinations; successful completion of the dissertation; successful completion of the oral dissertation defense.

Code	Title	Credits
Required Courses		
<i>M.A. Requirements</i>		
COMP LIT 702	Problems in Comparative Studies	3
COMP LIT 771	Literary Criticism	3
At least one graduate level seminar in Comparative Literature and Folklore Studies		
<i>Additional Ph.D. Requirements</i>		
COMP LIT 822	Seminar-Translation	3
At least two other 700-level courses		
A course in the comparative literatures of each of the following periods:		
Archaic/Classical		
Medieval/Renaissance/Early Modern		
No more than three 400-level Comparative Literature courses		
12 credits to complete a doctoral minor		

Strongly encouraged: A CLFS course in each of the three major literary genres:

Narrative

Poetry

Drama

PROFESSIONAL DEVELOPMENT**GRADUATE SCHOOL RESOURCES**

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POLICIES**GRADUATE SCHOOL POLICIES**

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PRIOR COURSEWORK**Graduate Work from Other Institutions**

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or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

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1. Good standing (progressing according to standards; any funding guarantee remains in place).
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CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Comprehensive examinations must be taken only on completion of the requisite minimum degree credits.

Within six weeks of successful completion of the comprehensive examination, candidates must submit a working draft of a dissertation proposal their dissertation committee members.

The dissertation must be deposited within two weeks of completion of all degree requirements.

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

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The deadline for all completed applications (and for fellowship consideration) for the fall semester is December 15.

PEOPLE

Faculty: Professors Dharwadker, Gilmore (also Landscape Architecture), Layoun, Livorni (chair, also French and Italian), Rosenblum (also Jewish Studies); Associate Professors Livanos, Statkiewicz; Assistant Professors Fielder, Grunewald, Neyrat, Wells. **Affiliate Faculty:** Adler (German, Nordic, and Slavic), Casid (Art History), Garlough (also Gender and Women's Studies), Goodkin (French and Italian), Guyer (English), Kern (Asian Languages and Cultures), Longinovic (German, Nordic, and Slavic), Valentine (Linguistics); Associate Professors Kapust (Political Science);

International Affiliate Faculty: Ramalho de Sousa Santos (University of Coimbra, Portugal). See *also* Faculty (<http://clfs.wisc.edu/people/faculty>) on the department website.

COMPARATIVE LITERATURE AND FOLKLORE STUDIES: FOLKLORE STUDIES, PH.D.

Admissions to the Comparative Literature and Folklore Studies: Folklore Studies Ph.D. have been suspended as of summer 2018. If you have any questions, please contact the department (complit@lss.wisc.edu).

This is a named option within the Comparative Literature and Folklore Studies Ph.D. (p. 364)

ADMISSIONS

Admissions to the Comparative Literature and Folklore Studies: Folklore Studies Ph.D. have been suspended as of summer 2018. If you have any questions, please contact the department (complit@lss.wisc.edu).

Applicants to the graduate program in the CLFS should submit to the department a statement of purpose for graduate study, transcripts, letters of recommendation, a writing sample (in English) of no more than 15 pages, a list of foreign language and literature coursework, and Graduate Record Exam (GRE) scores. (International applicants should consult the department and the Graduate School website for information and additional application requirements regarding TOEFL, MELAB or IELTS tests.)

Admission to graduate study in the comparative literature named option requires advanced foreign language work at the literary level in at least one language other than English; the student's academic record should demonstrate the ability to work critically in at least two literatures (one of which may be English).

All entering students are admitted into one of the two named options in the M.A. program. Students are accepted into the Ph.D. program upon successful completion of the Second-Year Examination.

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further

funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 51 credits

Minimum Residence Credit Requirement 32 credits

Minimum Graduate Coursework Requirement Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.

Overall Graduate GPA Requirement 3.5 GPA required.

Other Grade Requirements None.

Assessments and Examinations	<p>Comprehensive Examinations</p> <p>The comprehensive examinations, or "prelims," consist of three written examinations based on reading lists that have been approved by the advisor and the reading committees followed by an oral defense.</p> <p>Dissertation</p> <p>The dissertation is a written, substantial, and original contribution to knowledge guided by a dissertation committee consisting of the student's advisor and two members of the faculty of the department. The student will submit to the dissertation committee for approval a written proposal that will include a bibliography of primary and secondary source materials.</p> <p>Upon completion of the dissertation, the student will be examined in an oral defense of the dissertation and related areas by members of the dissertation committee in concert with two additional members, at least one of which must be from a related discipline outside of the department.</p>
Language Requirements	<p>Second language: An examination in a second language (other than English) must be taken by the end of the second semester of graduate study and before the Second Year Examination.</p> <p>In the event that the linguistic tradition under examination cannot be covered by a member of the comparative literature and folklore studies faculty, the advisor will invite an appropriate member of the UW–Madison faculty to assist in the administration of the examination.</p> <p>Third Language: A third language (other than English and the second language) proficiency must be demonstrated by the completion of an appropriate intermediate or advanced literature course with a grade of AB or better. This requirement must be satisfied before the Comprehensive (or "prelim") Examinations.</p> <p>Fourth Language Reading Requirement: For students pursuing the Comparative Literature Ph.D. option, each candidate must demonstrate reading knowledge of at least one of the following languages: Sanskrit, Hebrew, Classical Greek, Latin, a Medieval language, or a major Asian or African language. This requirement is satisfied by the completion of an appropriate course with a grade of AB or better.</p>
Doctoral Minor/Breadth Requirements	<p>All doctoral students are required to complete a 12-credit minor. Students may pursue a concentrated minor including the Option A or a distributed minor (Option B). Students in either of the named options in the CLFS Ph.D. program may pursue minors in their department so long as they do not have the same name as their named option.</p>

REQUIRED COURSES

All M.A. requirements; COMP LIT 822 Seminar-Translation; at least two other graduate seminars in comparative literature and folklore studies; the requirements for a Ph.D. option; demonstration of proficiency in a third language by passing an intermediate literature course with a grade of AB or better; successful completion of the Ph.D. preliminary

examinations; successful completion of the dissertation; successful completion of the oral dissertation defense.

Code	Title	Credits
Required Courses		
<i>M.A. Requirements</i>		
COMP LIT 702	Problems in Comparative Studies	3
FOLKLORE 510	Folklore Theory (or other Folklore course approved by advisor)	3
At least one graduate-level seminar in Comparative Literature and Folklore Studies		
<i>Additional Ph.D. Requirements</i>		
COMP LIT 822	Seminar-Translation	3
One of the following or other Folklore course approved by advisor:		
FOLKLORE/ L I S 490	Field Methods and the Public Presentation of Folklore	
FOLKLORE 491	Practicum in Public Folklore	
FOLKLORE/ COM ARTS 522	Digitally Documenting Everyday Communication	
FOLKLORE/ ANTHRO 639	Field School: Ethnography of Wisconsin Festivals	
FOLKLORE/ DS 640	Topics in Ethnographic Textiles	

12 credits to complete a doctoral minor

Strongly encouraged: A Folklore course within each of the following subject areas:

Folklore Genres or Forms

Cultural Areas

Issues and Methods in Folklore Studies

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

NAMED OPTION-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://clfs.wisc.edu/sites/clfs.wisc.edu/files/Documents/CLFS%20Grad%20Handbook%20December%202016.pdf>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 9 credits of graduate coursework from other institutions, provided this coursework relates directly to the student's CLFS graduate studies. Coursework earned five or more years prior

to admission to a master's degree may not be used to satisfy the CLFS degree requirements.

To apply credit for prior graduate coursework toward requirements the student should furnish the student's advisor and the director of graduate study with a transcript of the coursework and copies of work done in courses and syllabi, if available. This task should be completed in anticipation of the Second Year exam. Coursework earned ten or more years prior to admission to the doctoral degree may not be used to satisfy the CLFS degree requirements.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

With program approval, students are allowed to count no more than 9 credits of coursework numbered 300 or above taken as a UW–Madison Special student. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. An advisor is a faculty member from the major department responsible for providing advice regarding graduate studies. The advisor also serves as the dissertation advisor. An advisor is assigned to incoming student but can be changed. Students can be suspended from the Graduate School if they do not have an advisor.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Comprehensive examinations must be taken only on completion of the requisite minimum degree credits.

Within six weeks of successful completion of the comprehensive examination, candidates must submit a working draft of a dissertation proposal their dissertation committee members.

The dissertation must be deposited within two weeks of completion of all degree requirements.

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Because we are committed to supporting and working closely with our graduate students, we are able to accept only a limited number (2–3 students per year) of the many excellent applications we receive each year. The CLFS' admission form also serves as an application for fellowships and teaching assistantships. The deadline for all completed applications (and for fellowship consideration) for the fall semester is December 15.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PEOPLE

Faculty: Professors Dharwadker, Gilmore (also Landscape Architecture), Layoun, Livorni (chair, also French and Italian), Rosenblum (also Jewish Studies); Associate Professors Livanos, Statkiewicz; Assistant Professors Fielder, Grunewald, Neyrat, Wells. **Affiliate Faculty:** Adler (German, Nordic, and Slavic), Casid (Art History), Garlough (also Gender and Women's Studies), Goodkin (French and Italian), Guyer (English), Kern (Asian Languages and Cultures), Longinovic (German, Nordic, and Slavic), Valentine (Linguistics); Associate Professors Kapust (Political Science); **International Affiliate Faculty:** Ramalho de Sousa Santos (University of Coimbra, Portugal). See also Faculty (<http://clfs.wisc.edu/people/faculty>) on the department website.

COMPARATIVE LITERATURE, DOCTORAL MINOR

Admissions to the Comparative Literature Doctoral Minor have been suspended as of summer 2018. If you have any questions, please contact the department (complit@lss.wisc.edu).

The department offers a doctoral minor to graduate students of other departments and programs interested in pursuing the workings of comparative methodology in a global context and in broadening the critical and conceptual framework for their study of literatures, cultures, and texts.

REQUIREMENTS

The minor requires a minimum of 12 credits of coursework in comparative literature courses, which must include COMP LIT 702 Problems in Comparative Studies and at least one seminar (at the 800 or 900 level). Three credits may be taken at the 400 level, with the consent of the CLFS director of graduate studies. Please note that 300-level Comparative Literature courses do *not* count towards a Comparative Literature graduate minor.

At the beginning of studies in the department, all doctoral minor-seeking students should contact the director of graduate studies to discuss plans for the minor.

PEOPLE

Faculty: Professors Dharwadker, Gilmore (also Landscape Architecture), Layoun, Livorni (chair, also French and Italian), Rosenblum (also Jewish Studies); Associate Professors Livanos, Statkiewicz; Assistant Professors Fielder, Grunewald, Neyrat, Wells. **Affiliate Faculty:** Adler (German, Nordic, and Slavic), Casid (Art History), Garlough (also Gender and Women's Studies), Goodkin (French and Italian), Guyer (English), Kern (Asian Languages and Cultures), Longinovic (German, Nordic, and Slavic), Valentine (Linguistics); Associate Professors Kapust (Political Science); **International Affiliate Faculty:** Ramalho de Sousa Santos (University of Coimbra, Portugal). See *also* Faculty (<http://clfs.wisc.edu/people/faculty>) on the department website.

FOLKLORE, DOCTORAL MINOR

Admissions to the Folklore Studies Doctoral Minor have been suspended as of summer 2018. If you have any questions, please contact the department (complit@lss.wisc.edu).

Folklore is a multidisciplinary field of study concerned with the documentation and analysis of verbal, customary, musical, material, and performance traditions, primarily as they are sustained, revived, modified, invented by artists, educators, entrepreneurs, activists, communities, and states. CLFS offers courses on folkloric forms, practitioners, performances, theory, methods, and public presentation, with an emphasis on cross-cultural and interdisciplinary approaches. Graduate students interested in folklore as an area of concentration typically major in CLFS while specializing in particular languages and culture areas.

REQUIREMENTS

Students interested in a doctoral minor in folklore may either select an Option A Folklore minor or develop an Option B distributed minor with coursework in folklore and at least one other program. Students choosing an Option A minor select an advisor from the CLFS faculty, in consultation with the chair of the department. Students are expected to achieve a B or better in four folklore courses at the 300 level or above. Students must take either FOLKLORE/L I S 490 or FOLKLORE 510. Three additional courses may be selected from other courses at the 300 level or above.

PEOPLE

Faculty: Professors Dharwadker, Gilmore (also Landscape Architecture), Layoun, Livorni (chair, also French and Italian), Rosenblum (also Jewish Studies); Associate Professors Livanos, Statkiewicz; Assistant Professors Fielder, Grunewald, Neyrat, Wells. **Affiliate Faculty:** Adler (German, Nordic, and Slavic), Casid (Art History), Garlough (also Gender and Women's Studies), Goodkin (French and Italian), Guyer (English), Kern (Asian Languages and Cultures), Longinovic (German, Nordic, and Slavic), Valentine (Linguistics); Associate Professors Kapust (Political Science); **International Affiliate Faculty:** Ramalho de Sousa Santos (University of Coimbra, Portugal). See *also* Faculty (<http://clfs.wisc.edu/people/faculty>) on the department website.

COMPUTER SCIENCES

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Computer Sciences, Doctoral Minor (p. 373)
- Computer Sciences, M.S. (p. 374)
- Computer Sciences, Ph.D. (p. 378)

PEOPLE

Faculty: Professors Sohi (chair), Akella, A. Arpaci-Dusseau, R. Arpaci-Dusseau, Bach, Banerjee, Barford, Cai, Chawla, Doan, Ferris, Gleicher, Hill, Jha, Livny, van Melkebeek, Miller, Patel, Reps, Ron, Sankaralingam, Sohi, Swift, Wood, Wright, Zhu; Associate Professors Liblit, Mutlu; Assistant Professors Albarghouti, D'Antoni, Gupta, Koutris, Liang, Rekatsinas, Sifakis. See *also* Faculty (<https://www.cs.wisc.edu/people/faculty>) on the department website.

COMPUTER SCIENCES, DOCTORAL MINOR

REQUIREMENTS

Students planning to minor in computer sciences should consult with the department's Graduate Advising Committee. To obtain a doctoral minor, students must earn at least 9 credit hours in computer sciences courses, meeting the following requirements.

- All credits counted are for courses numbered 400 or above, excluding COMP SCI 400 Programming III
- At least 3 of the credits counted are for a course that involves a significant amount of programming in a structured language, such as C, C++, or Java. All courses that transitively depend on COMP SCI 400 Programming III meet this requirement.
- At least 3 of the credits counted focus on an area of CS not closely related to the student's major, as deemed by a member of the Graduate Advising Committee.

- At least 3 of the credits counted are for a course numbered 700 or above that is not an individual instruction course, was taught by a full time faculty member in CS, and for which the student received a grade on the A–F scale of at least B.
- At most 3 credits counted are for individual instruction courses, which are courses with a middle digit 9 that are intended for independent study or research.
- No credits counted are for thesis courses. These are courses with the last two digits 90 that are intended for thesis or project work.
- All credits counted have received a satisfactory grade.
- GPA of the credits counted is at least 3.00.
- No more than 5 credits counted are for coursework completed more than five years prior to admission to the Ph.D. program; no credits counted are for coursework taken 10 years ago or more.

PEOPLE

Faculty: Professors Sohi (chair), Akella, A. Arpaci-Dusseau, R. Arpaci-Dusseau, Bach, Banerjee, Barford, Cai, Chawla, Doan, Ferris, Gleicher, Hill, Jha, Livny, van Melkebeek, Miller, Patel, Reps, Ron, Sankaralingam, Sohi, Swift, Wood, Wright, Zhu; Associate Professors Liblit, Mutlu; Assistant Professors Albarghouti, D'Antoni, Gupta, Koutris, Liang, Rekatsinas, Sifakis. See also Faculty (<https://www.cs.wisc.edu/people/faculty>) on the department website.

COMPUTER SCIENCES, M.S.

The Department of Computer Sciences offers the Master of Science and a Doctor of Philosophy in Computer Sciences (p. 378). Research specialty areas include artificial intelligence, computational biology, computer architecture, computer graphics, computer networks, computer security, database systems, human–computer interaction, numerical analysis, optimization, performance analysis, programming languages and compilers, systems research, and theoretical computer sciences. See the department website (<https://www.cs.wisc.edu>) for faculty interests, research activities, courses, facilities, and degree requirements.

The Department of Computer Sciences also offers a named option for the master of science degree: the Professional Master's Program (p. 376).

ADMISSIONS

Students with a strong background in computer sciences or a related field are encouraged to apply for admission. At a minimum, the applicant should have had some programming experience, including courses in data structures and machine organization, and should have had a year of college-level mathematics at the calculus level or above. Applicants are evaluated based on their previous academic record, GRE scores, letters of recommendation, and a personal statement. All applications must be submitted online. Admission is very competitive. For more information on admissions, visit the department website (<https://www.cs.wisc.edu/academics/graduate-programs/guidebook/admission>).

Contact admissions@cs.wisc.edu with questions about admissions in the traditional M.S. or the Ph.D. programs.

Please see the Professional Master's Program (p. 376) admission page for professional program admissions information.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Funding is offered to about half of the students to whom admission is offered. Funding is usually in the form of fellowships, teaching assistantships, or research assistantships. Because computer science skills are in demand, students who are admitted without funding are often able to find graduate assistantships on campus. The department website (<https://www.cs.wisc.edu/academics/graduate-programs/guidebook/financial-aid>) provides information on funding options and offers suggestions for those who are admitted without department funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely

online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum 30 credits

Credit Requirement

Minimum 16 credits

Residence Credit Requirement

Minimum Graduate Coursework Requirement Half of degree coursework (15 out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements

No other grade requirements.

Assessments and Examinations

None. No language requirements.

REQUIRED COURSES

24 of the 30 credits must be for Computer Sciences courses (http://guide.wisc.edu/courses/comp_sci) numbered 400 or above, excluding COMP SCI 400 Programming III, such that:

- at least 15 are core credits,¹
- none are for seminar courses,²
- none are for individual instruction courses other than COMP SCI 790 Master's Thesis,³
- the credits for COMP SCI 790 Master's Thesis are either
 - at most 3, all for a project for which a report has been filed with the department and approved by at least one full-time CS faculty member (<http://www.cs.wisc.edu/people/faculty>), or else
 - at most 6, all for a master's thesis that has been submitted as a departmental tech report (<http://www.cs.wisc.edu/research/submit-tech-report>) and approved by a properly formed thesis committee.

Courses that are cross-listed with Computer Sciences are considered Computer Sciences courses for the purposes of this requirement. Non-Computer Sciences courses cannot be counted towards the credits, even though their syllabus may be similar to those of Computer Sciences courses.

¹ Core credit is assigned for:

- every Computer Sciences course numbered 700 or above, other than seminar courses², individual instruction courses³, and topics courses⁴, provided the grade received is on the A-F scale,
- COMP SCI 790 Master's Thesis, provided the instructor explicitly declares so, and

- one Computer Sciences topics course⁴ numbered 700 or above, provided the grade received is on the A-F scale and that particular offering is explicitly designated by the instructor as a core course.

To be designated as core, an offering should have a fairly broad coverage and be lecture-style. The latter excludes individual instruction courses and seminar-style courses.

- The seminar courses offered by the COMP SCI Department are COMP SCI 900 Advanced Seminar in Computer Science and COMP SCI/B M E/B M I/BIOCHEM/CBE/GENETICS 915 Computation and Informatics in Biology and Medicine. Seminar courses can be taken multiple times for credit.
- These are courses with middle digit 9. Individual instruction courses are intended for directed study, independent study, research, and project or thesis work.
- These are the courses COMP SCI 638, COMP SCI 703, COMP SCI 758, COMP SCI/MATH 837, COMP SCI 838 and COMP SCI 880. In Fall 2017, the new course COMP SCI 839 was created and is approved for core credit. Any COMP SCI 838 course offered beginning in fall 2017 is considered a non-core course. Topics courses have syllabi that may change significantly from one offering to another. In principle, they can be taken multiple times for credit, although their use for the M.S. is limited. In advance of each semester, it is announced which sections of those courses can count towards core credit.

NAMED OPTIONS (SUB-MAJORS)

A named option is a formally documented sub-major within an academic major program. Named options appear on the transcript with degree conferral.

- Computer Sciences: Professional Program, M.S. (p. 376)

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<http://www.cs.wisc.edu/academics/graduate-programs/guidebook>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

No credits taken at other institutions are allowed to satisfy requirements.

UW-Madison Undergraduate

No credits from a UW-Madison undergraduate degree are allowed to satisfy requirements.

UW-Madison University Special

With program approval, students are allowed to count no more than 15 credits of coursework numbered 300 or above

taken as a UW–Madison University Special student. Of the 15 credits of allowable prior course work a maximum of 6 credits are allowed for 300 level courses and COMP SCI 400. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

At the end of any regular (nonsummer) semester, a student is considered to be making satisfactory academic progress (SAP) if the following conditions are all satisfied:

- The student has completed at least 6 (if full load) or 3 (if part load) credits of approved courses during the semester.
- The student has removed all Incomplete grades from any previous regular semester or summer session.
- The student has passed any required exams and procedures within designated time limits.

Any graduate student who fails to make SAP during two consecutive regular semesters (fall and spring, or spring and fall) will be dismissed from the department at the end of the subsequent summer session. Any graduate student who fails to make SAP due to missed deadlines will be dismissed from the department at the end of the subsequent summer session.

ADVISOR / COMMITTEE

Students are advised by the Computer Sciences Graduate Advising Committee. These advisors must formally approve the student's initial course plan, and the courses taken each semester.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence.

OTHER

n/a

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PROGRAM RESOURCES

The Department of Computer Sciences hosts many professional development opportunities including: job fairs, workshops, seminars, talks, employer information sessions, mentoring and student socials. The Department of Computer Sciences student organizations, Student-ACM (SACM) and Women's ACM (WACM), are active partners in providing professional development opportunities for computer sciences graduate students.

LEARNING OUTCOMES

1. Articulates, critiques, or elaborates the theories, research methods, and approaches to inquiry or schools of practice in the field of study.
2. Identifies sources and assembles evidence pertaining to questions or challenges in the field of study.
3. Applies design and development principles in the construction of software systems of varying complexity.
4. Applies foundational principles in practical applications.
5. Independently acquires, synthesizes and applies required information pertaining to challenges in computer science.
6. Communicates clearly in ways appropriate to the field of study.

PEOPLE

Faculty: Professors Sohi (chair), Akella, A. Arpaci-Dusseau, R. Arpaci-Dusseau, Bach, Banerjee, Barford, Cai, Chawla, Doan, Ferris, Gleicher, Hill, Jha, Livny, van Melkebeek, Miller, Patel, Reps, Ron, Sankaralingam, Sohi, Swift, Wood, Wright, Zhu; Associate Professors Liblit, Mutlu; Assistant Professors Albarghouti, D'Antoni, Gupta, Koutris, Liang, Rekatsinas, Sifakis. See also Faculty (<https://www.cs.wisc.edu/people/faculty>) on the department website.

COMPUTER SCIENCES: PROFESSIONAL PROGRAM, M.S.

This is a named option with the Computer Sciences M.S. (p. 374)

The program is designed such that working professionals can complete the program and earn an M.S. degree within two years. Professional Master's students can take coursework in many areas: artificial intelligence, computational biology, computer architecture, computer graphics, computer networks, computer security, database systems, human–computer interaction, numerical analysis, optimization, performance analysis, programming languages and compilers, systems research, and theoretical computer sciences. The Professional Program's committee advises all computer sciences M.S. students in the Professional Master's Program. See the department website (<https://www.cs.wisc.edu>) for faculty interests, research activities, courses, facilities, and degree requirements.

ADMISSIONS

Students with a strong background in computer sciences or a related field are encouraged to apply for admission. At a minimum, the applicant should have had some programming experience, including courses in data structures and machine organization, and should have had a year of college-level mathematics at the calculus level or above. Applicants are evaluated based on their previous academic record, GRE scores, letters of recommendation, and a personal statement. All applications must be submitted online. For more information on admissions, visit the department website (<http://www.cs.wisc.edu/academics/graduate-programs/professional-masters/apply>).

Please see the Computer Sciences M.S. admissions page (p. 374) for traditional M.S. program information.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Students enrolled in the COMP SCI Professional Master's Program cannot accept research assistantships, teaching assistantships, project assistantships or other university appointments that grant waivers of tuition and/or academic fees.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement	30 credits
Minimum Residence Credit Requirement	16 credits
Minimum Graduate Coursework Requirement	Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.
Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	No other grade requirements.
Assessments and Examinations	None.
Language Requirements	No language requirements.

REQUIRED COURSES

To obtain the M.S. degree, students in the PMP should complete at least 30 credits, with an average grade of at least B, distributed as follows:

- Fifteen credits must be received for core graduate-level courses: Computer Sciences courses (http://guide.wisc.edu/courses/comp_sci) numbered 700-889. Specific offerings of COMP SCI/ MATH 837, COMP SCI 838, and COMP SCI 880 are counted as core classes only with approval of the Graduate Advising Committee.
- All remaining credits must be received for courses at 400 level or higher.
- COMP SCI 799 Master's Research and COMP SCI 790 Master's Thesis (in case the student elects to write a Master's thesis) can only be taken at most three times, for a total of at most six credits, which count toward the 15 credit requirement above.
- At most three credits can be received for attending Computer Sciences seminars offered by various groups in the department, or department-wide colloquiums. One credit can be earned per semester for attending at least four seminar lectures.

Many Computer Sciences courses have research-intensive project components. PMP students can elect to do instead a project that studies research papers in depth, surveys a cutting-edge topic, or examines how to apply what they learn to their daytime work. In addition, PMP students have the option of conducting independent studies, under the supervision of our faculty.

More details about the curricular requirements and to see a sample course plan that allows a working professional to complete the PMP in two years, see the department website (<http://www.cs.wisc.edu/academics/graduate-programs/professional-masters/requirements>).

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

NAMED OPTION-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 14 credits of post-baccalaureate graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

With program approval, students are allowed to count no more than 7 credits from a UW–Madison undergraduate degree. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison University Special

With program approval, students are allowed to count no more than 14 credits of coursework numbered 300 or above taken as a UW–Madison University Special student. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

At the end of any regular (non-summer) semester, a student is considered to be making satisfactory academic progress (SAP) if the following conditions are all satisfied:

- The student has completed at least 6 (if full load) or 3 (if part load) credits of approved courses during the semester.
- The student has removed all Incomplete grades from any previous regular semester or summer session.
- The student has passed any required exams and procedures within designated time limits.

Any graduate student who fails to make SAP during two consecutive regular semesters (fall and spring, or spring and fall) will be dismissed from the department at the end of the subsequent summer session. Any graduate student who fails to make SAP due to missed deadlines (criterion 3 above) will be dismissed from the department at the end of the subsequent summer session.

ADVISOR / COMMITTEE

A member of the Professional Programs Committee must formally approve all graduate schedules each semester.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence.

OTHER

Information on the Professional Master's Program is available at: <http://www.cs.wisc.edu/pmp>. Students in the Professional Master's program are not eligible for graduate assistantships.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PROGRAM RESOURCES

The Department of Computer Sciences hosts many professional development opportunities including: job fairs, workshops, seminars, talks, employer information sessions, mentoring and student socials. The Department of Computer Sciences's student organizations, Student-ACM (SACM) and Women's ACM (WACM), are active partners in providing professional development opportunities for computer sciences graduate students.

PEOPLE

Faculty: Professors Sohi (chair), Akella, A. Arpaci-Dusseau, R. Arpaci-Dusseau, Bach, Banerjee, Barford, Cai, Chawla, Doan, Ferris, Gleicher, Hill, Jha, Livny, van Melkebeek, Miller, Patel, Reps, Ron, Sankaralingam, Sohi, Swift, Wood, Wright, Zhu; Associate Professors Liblit, Mutlu; Assistant Professors Albarghouti, D'Antoni, Gupta, Koutris, Liang, Rekatsinas, Sifakis. See also Faculty (<https://www.cs.wisc.edu/people/faculty>) on the department website.

COMPUTER SCIENCES, PH.D.

The Department of Computer Sciences offers the master of science (p. 374) and doctor of philosophy degrees in computer sciences. Research specialty areas include artificial intelligence, computational biology, computer architecture, computer graphics, computer networks, computer security, database systems, human–computer interaction, numerical analysis, optimization, performance analysis, programming languages and compilers, systems research, and theoretical computer sciences. The department's Graduate Advising Committee (GAC) advises all computer sciences graduate students except students who are in dissertator status. See department website (<https://www.cs.wisc.edu>) for faculty interests, research activities, courses, facilities, and degree requirements.

ADMISSIONS

Students with a strong background in computer sciences or a related field are encouraged to apply for admission. At a minimum, the applicant should have had some programming experience, including courses in data structures and machine organization, and should have had a year of college-level mathematics at the calculus level or above. Applicants are evaluated based on their previous academic record, GRE scores, letters of recommendation, and a personal statement. All applications must be submitted online. Admission is very competitive. Aid is offered to about half of the students to whom admission is offered. Aid is usually in the form of fellowships, teaching assistantships, or research assistantships. For more information on admissions, visit the department website (<https://www.cs.wisc.edu/academics/graduate-programs/guidebook/admission>).

Contact admissions@cs.wisc.edu with questions about admissions in the traditional M.S. or the Ph.D. programs.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Funding is offered to about half of the students to whom admission is offered. Funding is usually in the form of fellowships, teaching assistantships, or research assistantships. Because computer science skills are in demand, students who are admitted without funding are often able to find graduate assistantships on campus. The department website (<https://www.cs.wisc.edu/academics/graduate-programs/guidebook/financial-aid>) provides information on funding options and offers suggestions for those who are admitted without department funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 51 credits

Minimum Residence Credit Requirement 32 credits

Minimum Graduate Coursework Requirement Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements courses All grades must be at least AB in all required breadth Requirements courses.

Assessments and Examinations	Doctoral students must complete a qualifying process, a preliminary examination, and a dissertation requirement. The qualifying process includes both completion of "breadth courses" (see Required Courses, below) as well as satisfactory completion of a comprehensive written depth examination in a selected focus area. The preliminary examination is an oral examination demonstrating depth of knowledge in the area of specialization in which research for the dissertation will be conducted. The dissertation requirement consists of conducting a substantial piece of original research in computer science, reporting it in a dissertation that meets the highest standards of scholarship, and explaining and defending the contents of the dissertation in a final oral examination and defense.
Language Requirements	No language requirements.
Doctoral Minor/Breadth Requirements	All doctoral students are required to complete a minor.

REQUIRED COURSES

Breadth Requirement

Ph.D. students must take at least one course from each of the bands 1, 2 and 3 listed below; the courses must all be outside of the student's qualifying exam area. This requirement can be satisfied with 3 700-level courses, or 2 700-level and 2 500-level courses. Grades in all courses used for breadth must be at least AB. Details on which courses may be used for breadth are in the Graduate Program Handbook.

Code	Title	Credits
Band 1		
<i>Computer Architecture:</i>		
COMP SCI/E C E 552	Introduction to Computer Architecture	3
COMP SCI/E C E 752	Advanced Computer Architecture I	3
COMP SCI/E C E 755	VLSI Systems Design	3
COMP SCI/E C E 757	Advanced Computer Architecture II	3
COMP SCI 758	Advanced Topics in Computer Architecture	3
<i>Computer Networks:</i>		
COMP SCI 640	Introduction to Computer Networks	3
COMP SCI/E C E 707	Mobile and Wireless Networking	3
COMP SCI 740	Advanced Computer Networks	3
<i>Computer Security:</i>		
COMP SCI 642	Introduction to Information Security	3
<i>Operating Systems:</i>		
COMP SCI 537	Introduction to Operating Systems	4
COMP SCI 736	Advanced Operating Systems	3
COMP SCI 739	Distributed Systems	3
COMP SCI 744	Big Data Systems	3
<i>Programming Languages and Compilers:</i>		
COMP SCI/E C E 506	Software Engineering	3
COMP SCI 536	Introduction to Programming Languages and Compilers	3

COMP SCI 538	Introduction to the Theory and Design of Programming Languages	3
COMP SCI 701	Construction of Compilers	3
COMP SCI 703	Advanced Topics in Programming Languages and Compilers	3
COMP SCI 704	Principles of Programming Languages	3
COMP SCI 706	Analysis of Software Artifacts	3
Band 2		
<i>Artificial Intelligence:</i>		
COMP SCI 534	Computational Photography	3
COMP SCI 540	Introduction to Artificial Intelligence	3
COMP SCI 545	Natural Language and Computing	3
COMP SCI 731	Advanced Artificial Intelligence	3
COMP SCI 760	Machine Learning	3
COMP SCI/E C E 761	Mathematical Foundations of Machine Learning	3
COMP SCI 766	Computer Vision	3
COMP SCI 769	Advanced Natural Language Processing	3
<i>Bioinformatics:</i>		
COMP SCI/B M I 576	Introduction to Bioinformatics	3
COMP SCI/B M I 776	Advanced Bioinformatics	3
<i>Computer Graphics:</i>		
COMP SCI 559	Computer Graphics	3
COMP SCI 679	Computer Game Technology	3
COMP SCI 765	Data Visualization	3
COMP SCI 777	Computer Animation	3
<i>Database Systems:</i>		
COMP SCI 564	Database Management Systems: Design and Implementation	4
COMP SCI 764	Topics in Database Management Systems	3
COMP SCI 784	Foundations of Data Management	3
<i>Human-Computer Interaction:</i>		
COMP SCI 570	Introduction to Human-Computer Interaction	4
COMP SCI/ED PSYCH/PSYCH 770	Human-Computer Interaction	3
Band 3		
<i>Modeling and Analysis of Computer Systems:</i>		
COMP SCI 547	Computer Systems Modeling Fundamentals	3
COMP SCI 747	Advanced Computer Systems Analysis Techniques	3
<i>Numerical Analysis:</i>		
COMP SCI/MATH 513	Numerical Linear Algebra	3
COMP SCI/MATH 514	Numerical Analysis	3
<i>Optimization:</i>		
COMP SCI/E C E/ I S Y E 524	Introduction to Optimization	3

COMP SCI/I SY E/ MATH/STAT 525	Linear Programming Methods	3
COMP SCI/ I SY E 635	Tools and Environments for Optimization	3
COMP SCI/ I SY E 719	Stochastic Programming	3
COMP SCI/I SY E/ MATH/STAT 726	Nonlinear Optimization I	3
COMP SCI/I SY E/ MATH 728	Integer Optimization	3
COMP SCI/I SY E/ MATH 730	Nonlinear Optimization II	3
<i>Theory of Computing:</i>		
COMP SCI 520	Introduction to Theory of Computing	3
COMP SCI 577	Introduction to Algorithms	4
COMP SCI 710	Computational Complexity	3
COMP SCI 787	Advanced Algorithms	3
COMP SCI 880	Topics in Theoretical Computer Science	3

In addition, some offerings of COMP SCI 838 (<http://www.cs.wisc.edu/courses/838>) count towards the breadth requirement. Before each term, it is announced which sections do and what area/band they are in.

One course taken as a graduate student elsewhere may be counted for breadth. A request for this must be made in writing to the GAC Chair. The request should indicate the corresponding UW–Madison course, include a transcript showing a grade of AB or better, and suggest a faculty member who can evaluate the course. GAC will ask this faculty member to evaluate the outside course's syllabus and other course materials and vouch for the choice of UW–Madison course.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<http://www.cs.wisc.edu/academics/graduate-programs/guidebook>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

Subject to faculty approval, one graduate course taken elsewhere may be used for breadth. Other than that, no credits of graduate coursework from other institutions are allowed to satisfy requirements.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to satisfy requirements.

UW–Madison University Special

With program approval, students are allowed to count no more than 15 credits of coursework numbered 300 or above taken as a UW–Madison University Special student. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

PROBATION

At the end of any regular (nonsummer) semester, a student is considered to be making satisfactory academic progress (SAP) if the following conditions are all satisfied:

- Before achieving dissertator status: the student has completed at least 6 (if full load) or 3 (if part load) credits of approved courses during the semester.
- After achieving dissertator status: the student has satisfactorily completed at least three credits of courses approved by the student's major professor.
- The student has removed all Incomplete grades from any previous regular semester or summer session.
- The student has passed any required exams and procedures within designated time limits.

Any graduate student who fails to make SAP during two consecutive regular semesters (fall and spring, or spring and fall) will be dismissed from the department at the end of the subsequent summer session. Any graduate student who fails to make SAP due to missed deadlines will be dismissed from the department at the end of the subsequent summer session.

ADVISOR / COMMITTEE

A member of the graduate advising committee must formally approve all graduate schedules each semester until a student is in dissertator status.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Students must pass the qualifying process by the end of the sixth semester.

The preliminary exam must be taken within two years after the deadline for the qualifying exam.

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence.

OTHER

n/a

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PROGRAM RESOURCES

The Department of Computer Sciences hosts many professional development opportunities including: job fairs, workshops, seminars, talks, employer information sessions, mentoring and student socials. The Department of Computer Sciences student organizations, Student-ACM (SACM) and Women's ACM (WACM), are active partners in providing professional development opportunities for computer sciences graduate students.

LEARNING OUTCOMES

1. Articulates research problems, potentials, and limits with respect to theory, knowledge, or practice within the field of study.
2. Formulates ideas, concepts, designs, and/or techniques beyond the current boundaries of knowledge within the field of study.
3. Creates research, scholarship, or performance that makes a substantive contribution.
4. Demonstrates breadth within their learning experiences.
5. Advances contributions of the field of study to society.
6. Communicates complex ideas in a clear and understandable manner.
7. Fosters ethical and professional conduct.

PEOPLE

Faculty: Professors Sohi (chair), Akella, A. Arpac-Dusseau, R. Arpac-Dusseau, Bach, Banerjee, Barford, Cai, Chawla, Doan, Ferris, Gleicher, Hill, Jha, Livny, van Melkebeek, Miller, Patel, Reps, Ron, Sankaralingam, Sohi, Swift, Wood, Wright, Zhu; Associate Professors Liblit, Mutlu; Assistant Professors Albarghouti, D'Antoni, Gupta, Koutris, Liang, Rekatsinas, Sifakis. See also Faculty (<https://www.cs.wisc.edu/people/faculty>) on the department website.

COUNSELING PSYCHOLOGY

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Counseling Psychology, Doctoral Minor (p. 382)
- Counseling Psychology, Ph.D. (p. 383)
- Counseling, M.S. (p. 388)

PEOPLE

Faculty: Professors Hoyt (chair), Gloria, Quintana, Uttal; Associate Professors Thompson, Valdez; Assistant Professors Budge, Wright; Faculty Associate Lotta; Clinical Associate Professor Graham

COUNSELING PSYCHOLOGY, DOCTORAL MINOR

The minor in counseling psychology is in alignment with a scientist-practitioner model of training, which emphasizes the integration of counseling and psychological theory and practice along with development of research skills in the domains encompassed by counseling psychology.

The profession of counseling psychology uses an inclusive definition of multiculturalism (i.e., a range of individual cultural differences including, but not limited to, race/ethnicity, gender, sexual orientation, disability, class status). In doing so, the complexity of diversities and influence of oppressions and saliencies of multiple cultures can be addressed. Students in counseling psychology are trained to apply a tripartite framework of personal identity in which individual, group, and universal levels are considered. Drawing from such a holistic framework permits the simultaneous attention and address of unique processes, cultural differences and similarities, and universal experiences, while recognizing the influence of social conditioning, sociopolitical forces and context, and institutional processes. This emphasis on respect for diversity and competence to bridge cultural divides is consistent with the core values of counseling psychology, and has implications for the roles and mutual obligations of trainers and trainees in counseling psychology programs.

ADMISSIONS

Ph.D. students wishing to complete a Ph.D. minor in Counseling Psychology should complete their program's minor form, listing four graduate courses in Counseling Psychology that they wish to take (or have already taken). If the student has selected a faculty member from the Counseling Psychology faculty to be their minor advisor, the form should be signed by them. If no specific faculty member has been selected, the form may be turned in to the student services coordinator in room 335B, who will then forward the request to the chair for approval. Following the signature of the CP minor advisor or department chair, the student should then get the signature of their home department advisor. The completed form with all signatures must then be given to the CP student services coordinator, who will maintain a copy in the CP files.

REQUIREMENTS

- A minimum of 12 credits in graduate-level Counseling Psychology courses (http://guide.wisc.edu/courses/coun_psy).
- Coursework can include both those courses typically taken by Counseling M.S. (<http://guide.wisc.edu/graduate/counseling-psychology/counseling-psychology-ms/#requirements-text>) students as well as Counseling Psychology Ph.D. (p. 384) students. However, in all cases, the focus of the coursework should be content-based, not practicum-based.

- A grade of at least a B in each course used for the minor (all coursework must be taken on a graded basis; pass/fail and audited courses cannot be used).
- A maximum of 3 credits of independent study (e.g., 699, 799) can be used towards the minor
- Research (990) cannot be used to satisfy the minor requirement
- All coursework must be completed at UW–Madison during the student’s time in their current graduate program. Any exceptions to this will require the advance approval of the minor advisor or department chair.

PEOPLE

Faculty: Professors Hoyt (chair), Gloria, Quintana, Uttal; Associate Professors Thompson, Valdez; Assistant Professors Budge, Wright; Faculty Associate Lotta; Clinical Associate Professor Graham

COUNSELING PSYCHOLOGY, PH.D.

The APA-accredited doctoral program in counseling psychology is based on the scientist/practitioner model of professional psychology and integrates counseling and psychological theory, scientific inquiry, and supervised practice. Counseling psychology is a psycho-educational specialty in which practitioners help others to improve their well-being, alleviate their distress, resolve their crises, and increase their ability to solve problems and make decisions. Counseling psychologists apply systematic, research-based approaches to help themselves and others understand and develop solutions to problems that are educational, vocational, emotional, social, cultural, health-related, or developmental in nature.

The UW–Madison program places special emphasis on multicultural competence and social justice, integration of research and practice, and preparation for ethical and professional conduct as either a researcher, teacher, or practitioner. The theoretical orientation of the program is best described as eclectic. Course work emphasizes the research base of counseling psychology and students are expected to involve themselves in faculty research. All students complete a one-year, full-time pre-doctoral internship as a culminating training experience. The planned length of the program for students entering with a master’s degree (post-M.A. track) is five years, although students may opt to take additional time depending on academic background and career objectives.

The department also admits a small number of students to a post–B.A. track. These students apply to the Ph.D. program at the completion of their undergraduate degree, and are required to integrate coursework and professional practice training at the master’s level, as well as introductory doctoral coursework, during the first two years of study. Students admitted to the post–B.A. track typically have excellent academic records and experiences that demonstrate high levels of both helping skills and research skills prior to admissions. The planned length of the post–B.A. track is six years, although actual completion times will vary depending on student needs and career goals.

The mission of the counseling psychology Ph.D. program is to train health service psychologists who are skillful in research and intervention with diverse populations, who integrate science and practice into their professional roles, and who uphold high ethical and professional standards as psychologists. Program graduates are broadly prepared

for a number of professional roles, including direct service, research, teaching, clinical supervision, and program design and evaluation.

The Ph.D. program is accredited by the American Psychological Association. For further information on accreditation, contact APA’s Office of Program Consultation and Accreditation, 750 First Street NE, Washington, DC 20002-4242; 202-336-5979; apaaccred@apa.org.

LICENSURE AS A PSYCHOLOGIST

Graduates of the Ph.D. program are eligible for licensure to practice psychology. Licensure requirements differ by state, and currently most states require additional supervised practice post-Ph.D. All states require passage of the national licensure examination (the Examination for Professional Practice of Psychology or EPPP), and most states also have state-specific written and oral examinations. Links to descriptions of licensure requirements by state may be obtained from the website of the Association of State and Provincial Psychology Boards (<http://www.asppb.net>).

ADMISSIONS

Admission to the counseling psychology Ph.D. program is highly competitive. The Department of Counseling Psychology accepts applications for fall enrollment between early September and December 1 for the Ph.D. program in Counseling Psychology. **There is no option for spring or summer initial enrollment in the department.** The applicant is responsible for collecting, assembling, and submitting all the pieces of the application by the December 1 deadline. Applicants should submit their materials in electronic form.

POST-BA AND POST-MA TRACKS

Most students who apply to and are enrolled in the Ph.D. program have earned a master’s degree (post-M.A. in counseling or a related field). However, in fall 2010, we began offering a “post-B.A.” track within our Ph.D. program for highly qualified students who have not yet earned a master’s degree in a counseling-related field and wish to apply directly to a Ph.D. program. Having a post-BA track allows us to accept qualified applicants to the Ph.D. program who may have work, volunteer, or research experience in counseling or a related profession, have exhibited a passion for helping others, and/or possess a master’s degree in a non-counseling field. If you are unsure which option is right for you, review the information in the “Ph.D. Information and Instructions for Fall Applicants” link, found on our website at Information for Prospective Ph.D. Applicants (<https://counselingpsych.education.wisc.edu/cp/phd-program/for-prospective-phd-applicants>).

Unlike students in our regular “post-M.A.” track (i.e., those who enter with a Master’s degree), post-B.A. track students start the program alongside the incoming Master’s student cohort. In their first academic year, post-B.A. track students will complete a course load similar to their Master’s student counterparts. In their second academic year, post-B.A. track students will complete their “first Year Experience” while beginning their Ph.D. coursework. Post-B.A. track students are not currently required to complete a Master’s thesis or the Professional Integration Exercise, but will also not receive a Master’s degree unless they choose to meet all requirement’s for our masters program.

INFORMATIONAL MEETINGS

A number of informational meetings are held each fall by our department. A list of these meetings can be found on our Information for Prospective

Ph.D. Applicants (<https://counselingpsych.education.wisc.edu/cp/phd-program/for-prospective-phd-applicants>) page.

APPLICATION PROCEDURE

Up-to-date information and requirements regarding applying to our Ph.D. program can be found on our Information for Prospective Ph.D. Applicants page (<https://counselingpsych.education.wisc.edu/cp/phd-program/for-prospective-phd-applicants>).

Questions can be directed to the Student Services Coordinator, Andrea Guptill (ampalm@wisc.edu).

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Although the program cannot guarantee funding to students admitted to the Ph.D. program, it is usual for these students to be supported by a combination of graduate assistantships and fellowships while they are completing course work in the program. The predoctoral internship is a paid appointment, with benefits, as well.

FELLOWSHIPS

- Students may be eligible for an Ed-GRS fellowship. Ed-GRS is a community of first generation students and ethnically underrepresented students who are receiving an Advanced Opportunity Fellowship (AOF) in the School of Education. In addition to tuition remission, monthly stipend, and health care benefits, the program strives to assist our fellows with first year transition, community building, and professional development opportunities. To be eligible for AOF, a student must be a U.S. citizen or U.S. Permanent Resident, and be admitted to or enrolled in a graduate department. Preference is given to Wisconsin residents; and students also must identify with one of the following groups: African American; Native American; Hispanic: Mexican Americans, Chicano/as, Puerto Ricans; Southeast Asians: Cambodian, Hmong, Laotian, and Vietnamese; OR McNair Students (students who participated in a McNair Program) OR Wisconsin residents who are first generation to complete a Bachelors degree and who participated in a TRIO Program (Upward Bound, Talent Search, or Educational). The Graduate School administers this fellowship through Graduate Research Scholar Communities (GRS). AOF stipends were approximately \$15,000 for the 2016-2017 academic year (9 mos.) with remission of tuition (Fall and Spring semesters) and health insurance. Both M.S. and Ph.D. applicants are eligible for the AOF. The department nominates top eligible candidates for Ed-GRS automatically - no

additional application materials are needed from the applicant. More information about AOFs can be found on their website (<https://grad.wisc.edu/currentstudents/academics/grs>).

- Students interested in becoming a Residence Hall House Fellow should view the information available on their website (<https://www.housing.wisc.edu/residencehalls-life-staff.htm>).
- Racial and ethnic minority students are encouraged to apply for the American Psychological Association Minority Fellowship Program. Information is available on their website (<http://www.apa.org/pi/mfp/contact.aspx>).

ASSISTANTSHIPS

Department assistantships are assigned through a competitive application process each spring. Admitted students are included in the process the spring before they start in the program. Students are strongly encouraged to also apply for teaching or project assistantships outside the department, and most obtain at least some of their support in other departments or units on campus during their time in the program. Positions are posted on the university jobs site ([https://jobcenter.wisc.edu/jobs/categoryBrowse/Graduate%20Assistant%20\(Research,%20/1\)](https://jobcenter.wisc.edu/jobs/categoryBrowse/Graduate%20Assistant%20(Research,%20/1))).

Currently, all graduate assistantships and fellowships include tuition remission and health benefits.

FINANCIAL AID

Information and application materials for financial aid, loans, scholarships, and student employment may be obtained by contacting the Office of Student Financial Aid (<https://financialaid.wisc.edu>) at 333 East Campus Mall, Room 9701, Madison, WI 53706, 608-262-3060. International applicants are encouraged to seek other forms of financial assistance as international students are not eligible for loans and scholarships.

Additional information about funding is available on the Counseling Psychology website (<http://counselingpsych.education.wisc.edu/cp/phd-program/funding>). You may also email questions to the student services coordinator, Andrea Guptill, ampalm@wisc.edu.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Post–M.A.: 72 credits
Credit Requirement

Post–B.A.: 84 credits

Minimum Post–M.A.: 51 credits

Residence

Credit Post–B.A.: 63 credits

Requirement

Minimum Half of degree coursework must be completed graduate-
Graduate level coursework; courses with the Graduate Level
Coursework Coursework attribute are identified and searchable in the
Requirement university's Course Guide.

Overall 3.00 GPA required.

Graduate GPA

Requirement

Other Grade Students are required to attain a minimum course grade
Requirements of B for all required courses.

Assessments Satisfactory progress is demonstrated by earning
and a minimum grade of B in all required courses,
Examinations demonstration of competency on routine evaluation
milestones, responsible professional conduct in
employment and practicum settings, and timely progress
on independent work. A comprehensive formative review
of student performance, encompassing academic and
clinical training, research involvement, and other roles
such as employment and departmental activities, is
conducted annually.

The doctoral preliminary examination includes three components, all of which include both written and oral presentations. The clinical case study (PE-1) is an in-depth reflection on a single counseling case, and serves as an exemplar of clinical competencies in the role of counselor. The supervision case study (PE-2) is an in-depth reflection on a relationship with one supervisee, and serves as an exemplar of clinical competencies in the role of supervisor. The dissertation proposal (PE-3) includes a literature review and method section for a proposed dissertation project, and serves as an exemplar of academic and scientific proficiency.

Language No language requirements.

Requirements

Doctoral Ph.D. students in the Department of Counseling
Minor/ Psychology may elect to develop a minor area of
Breadth concentration. This minor is optional. Students who
Requirements wish to complete a cohesive body of work outside the
major may wish to obtain a doctoral minor. Students are
expected to consult with their advisors concerning minor/
breadth requirements.

REQUIRED COURSES

There are two primary curriculum domains of the doctoral program. Required coursework and practicum experiences contribute to each student's competency in these areas. The core curriculum areas are:

1. Discipline-Specific Knowledge
 - a. History and Systems of Psychology
 - b. Basic Psychology Content Areas (i.e., Affective Aspects of Behavior, Biological Aspects of Behavior, Cognitive Aspects of Behavior, Developmental Aspects of Behavior, and Social Aspects of Behavior)
 - c. Research, Quantitative Methods, and Psychometrics
 - d. Advanced Integrative Knowledge in Scientific Psychology
2. Profession-Wide Competencies
 - a. Integration of Science and Practice
 - b. Ethical and Legal Standards
 - c. Individual and Cultural Diversity
 - d. Professional Values and Attitudes
 - e. Communication and Interpersonal Skills
 - f. Assessment
 - g. Intervention
 - h. Supervision
 - i. Consultation and Interprofessional/Interdisciplinary Skills
Required coursework (i.e., major core coursework) includes courses in each of these areas.

In accordance with the Standards of Accreditation (SoA) for Health Service Psychology, all students are required to document mastery of broad and general content knowledge in each of these psychological foundations areas during their doctoral studies.

Post–M.A. track ¹:

Code	Title	Credits
Discipline-Specific Knowledge Courses		
<i>History and Systems</i>		
COUN PSY/ ED PSYCH/ RP & SE 737	Seminar in History and Systems of Psychology	3
<i>Basic Psychology</i>		
COUN PSY/PSYCH/ RP & SE 729	Advanced Social Psychology	3
ED PSYCH 542	The Biological Basis of Behavior	3

ED PSYCH/ HDFS 725	Theory and Issues in Human Development	3
ED PSYCH 795	Introduction to Learning Sciences I	3
<i>Advanced Integrative Knowledge</i>		
COUN PSY/ ED PSYCH/ RP & SE 736	Seminar in Psychology of Individual Differences	3
COUN PSY 740	Abnormal Behavior and Psychopathology	3
COUN PSY/ RP & SE 925	Seminar in Counseling Psychology	3
<i>Research, Quantitative Methods, and Psychometrics</i>		
COUN PSY 905	Research Practicum in Counseling Psychology (2 semesters)	6
COUN PSY 926	Seminar in Ethical and Professional Issues in Counseling Psychology	3
COUN PSY 950	Research Methods in Counseling Psychology	3
COUN PSY 960	Research Methods in Counseling Psychology, II	3
Profession-Wide Competencies-Related Required Coursework		
<i>Core Courses</i>		
COUN PSY/ RP & SE 925	Seminar in Counseling Psychology	3
COUN PSY 951	Counseling Psychology Research in Individual Intervention	3
COUN PSY 956	Seminar: Research in Vocational Psychology and Career Development	3
<i>Clinical Training Sequence</i>		
COUN PSY 810	Professional Development and Clinical Practice (2 semesters)	2-12
COUN PSY/ RP & SE 850	Consultation Procedures for Counselors	3
COUN PSY 900	Counseling Psychology Practicum--Foundational (2 semesters)	6
COUN PSY 903	Counseling Psychology Practicum--Advanced (2 semesters)	6
COUN PSY 902	Counseling Psychology Practicum in Supervision (1 semester)	3
COUN PSY 890	Advanced Assessment Techniques in Counseling Psychology	3
<i>Other Courses</i>		
COUN PSY 990	Research or Thesis	3-12
COUN PSY 954	Seminar: Topical Research in Counseling Psychology (pre-doctoral internship prep)	2-3
COUN PSY 904	Counseling Psychology Externship (optional - 2 semesters)	2-6
Data Analytic Methods - 2 additional courses; at least one must address quantitative data analysis. Examples could include:		6
COUN PSY 755	Seminar on Meta-Analysis	
ED PSYCH 740	Cognitive Assessment of Children in the Schools	

ED PSYCH 960	Structural Equation Modeling
ED PSYCH/ ELPA 964	Hierarchical Linear Modeling
ED PSYCH 963	Design & Analysis of Quasi-Experiments for Causal Inference

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Post-B.A. track ¹:

Must complete all courses listed for the Post-MA track **and**

Code	Title	Credits
COUN PSY 800	Theories of Counseling	3
COUN PSY 802	Group Dynamics Processing and Counseling	3
COUN PSY 805	Helping Relationships and Techniques	3
COUN PSY 806	Supervised Practicum in Counseling	3

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://counselingspsych.education.wisc.edu/docs/WebDispenser/counseling-psychology-documents/2017-phd-handbook-final.pdf?sfvrsn=2>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 21 credits of graduate coursework from other institutions. Coursework earned four or more years prior to admission to the doctoral program is not allowed to satisfy requirements.

UW-Madison Undergraduate

No credits from a UW-Madison undergraduate degree are allowed to count toward the degree.

UW-Madison University Special

With program approval, students are allowed to count no more than 9 credits of coursework numbered 300 or above taken

as a UW–Madison University Special student. Coursework earned four or more years prior to admission to the doctoral program is not allowed to satisfy requirements.

PROBATION

Placement on probation indicates a very serious faculty concern about a student's performance. Students are placed on probation, as opposed to being dismissed from the program, when the faculty determines that the student likely will be able to address the difficulty that led to the probation if appropriate remediation is provided. If a recommendation for probation and remediation is adopted by the faculty, the student and advisor work with the Doctoral Training Committee (or a subset of this committee) to formulate a remediation plan including explicit goals and deadlines for evaluation of their attainment.

Students on probation cannot be approved as ready for the next level of clinical training (i.e., for foundational practicum; for internship) until they have successfully remediated the identified concern(s). This can have a substantial impact on time to degree, as practicum applications begin in the fall semester for the following academic year.

ADVISOR / COMMITTEE

Upon admission to the doctoral program, all students are assigned a faculty advisor. The doctoral student may select a major professor from the Department of Counseling Psychology who is not the original faculty advisor. In view of the important role that the major professor plays in the student's dissertation research, students are advised to allow themselves sufficient time to get acquainted with all faculty, so that they can select a major professor with whom they share similar research interests, career goals, or other interests. The doctoral student's faculty advisor plays an important role in monitoring and assisting the student with program planning.

Reviews of student progress are an agenda item for departmental faculty meeting in November (1st-year students only) and in April or May (all active Ph.D. students). All students are required to conduct a yearly progress report meeting with their advisor. Student perspectives are taken into account in these reviews, and all students complete the Doctoral Student Report on Progress, in conjunction with their advisors.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Students have eight years from the date of admission to complete all of the necessary courses. Courses that are more than eight years old will not fulfill program completion requirements for admission to candidacy. Admission to candidacy occurs when students successfully complete all required coursework and pass their doctoral preliminary examinations. Students must be admitted to candidacy within ten years of admission to the department. Once admitted to candidacy (dissertator status) the student has five years to complete the dissertation and pass the final oral examination.

Once students are admitted they are expected to maintain continuous enrollment and make satisfactory progress toward their

degree. Failure to maintain continuous enrollment may result in lengthy reentry process or possible termination from the program.

Prior to reentry into the program, the student should contact the department and petition the faculty for reentry. The full faculty will determine whether the student is granted reentry without conditions, granted reentry conditionally (e.g., require additional coursework or adherence to time lines for completion of degree requirements) or denied reentry.

OTHER

The vast majority of Ph.D. students are funded for their years on campus through a combination of in-department and out-of-department assistantships and fellowships. Graduate assistantships and fellowships typically pay a monthly stipend, often carry a full tuition waiver, and provide an excellent benefits package.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Prepare for role as professional psychologist.
2. Apply professional standards and conduct.
3. Demonstrate scientific foundations.
4. Acquire knowledge and skill in psychological practice.
5. Acquire knowledge and skills in clinical supervision.
6. Develop relational skills.
7. Gain an understanding of the scientific basis for practice.
8. Acquire knowledge of research methods.
9. Apply research findings to psychological practice.
10. Apply scientific thinking to practice.
11. Develop a multicultural competence and social justice orientation.
12. Acquire cultural and scientific knowledge relevant to diverse and underrepresented groups.
13. Develop awareness of self as a cultural being.
14. Develop skill in application of knowledge of self, culture, and context to clinical work.

PEOPLE

Faculty: Professors Hoyt (chair), Gloria, Quintana, Uttal; Associate Professors Thompson, Valdez; Assistant Professors Budge, Wright; Faculty Associate Lotta; Clinical Associate Professor Graham

ACCREDITATION

Accreditation

American Psychological Association (<http://www.apa.org>)

Accreditation status: Accredited. Next accreditation review: 2019.

Certification/Licensure

Examination for Professional Practice in Psychology (<http://www.asppb.net>)

Year of Exam	UW-Madison Graduates: First Attempt	National First Attempt
2015-2017	81.82%	80.81%

Note: Because of the relatively small size of many doctoral programs, EPPP pass rates are reported only in terms of the three-year moving average.

COUNSELING, M.S.

The M.S. program emphasizes counseling in community and agency settings, including university and college counseling centers. The master's degree emphasizes service delivery, and its practica/ internship components reflect that emphasis. The curriculum stresses knowledge and development of skills in individual and group counseling, consultation, research, ethics, multiculturalism, social justice and vocational psychology. Supervised practicum experiences are available through the training clinic, university counseling centers, community mental health centers and numerous other campus units and community agencies. Students are prepared to work predominantly as practitioners in community agencies, post-secondary educational institutions, business and industry. The program fulfills academic requirements to become a licensed professional counselor in the state of Wisconsin.

The sequence of required courses combined with lab and field experiences can be planned on either a full- or part-time basis, but care must be taken in proper sequencing of courses for those attending part-time. Those students enrolling on a full-time basis typically complete the program in two years, including summer classes. For more information, visit the program website (<http://counselingpsych.education.wisc.edu/cp/masters-program>).

ADMISSIONS

ADMISSIONS DECISIONS

Admission to the program is highly competitive. Approximately 150 master's applications are received each year, and the department enrolls 10–12 new master's students per year. The Department of Counseling Psychology accepts applications for fall enrollment between early September and January 5th for the M.S. in Counseling program. **There is no option for spring or summer initial enrollment in the department.** The applicant is responsible for collecting, assembling, and submitting all the pieces of the application by the January 5 deadline. Applicants should submit their materials in electronic form.

REQUIREMENTS

In addition to acquired academic competencies and counseling skills, the counseling profession requires a high level of ethical behavior, self-awareness and personal maturity. All are considered in assessing a student's fitness for a career as a professional counselor. The applicant will be expected to meet minimum requirements for admission set by the Graduate School. Department requirements are more rigorous. An undergraduate degree is required for the master's program.

Applicants should have 3 credit hours of introductory psychology and 3 credit hours in statistics **or** measurement/psychometrics/ test construction. If the applicant has not completed the necessary requirements at the time of application, he or she may be admitted with deficiencies and complete the course work in addition to the program requirements. Prior volunteer or paid work experience in community agencies is important for placement in community agencies for practicum.

INFORMATIONAL MEETINGS

A number of informational meetings are held each fall by our department. A list of these meetings can be found on our Information for Prospective M.S. Applicants (<http://counselingpsych.education.wisc.edu/cp/masters-program/ms-application>) page.

APPLICATION PROCEDURE

Up-to-date information and requirements regarding applying to our M.S. program can be found on our Information for Prospective M.S. Applicants (<http://counselingpsych.education.wisc.edu/cp/masters-program/ms-application>) page.

Questions can be directed to the Student Services Coordinator, Andrea Guptill, ampalm@wisc.edu.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

FELLOWSHIPS

- Students may be eligible for an Ed-GRS fellowship. Ed-GRS is a community of first generation students and ethnically underrepresented students who are receiving an Advanced Opportunity Fellowship (AOF) in the School of Education. In addition to tuition remission, monthly stipend, and health care benefits, the program strives to assist our fellows with first year transition, community building, and professional development opportunities. To be eligible for AOF, a student must be a U.S. citizen or U.S. Permanent

Resident, and be admitted to or enrolled in a graduate department.

Preference is given to Wisconsin residents; and students also must identify with one of the following groups: African American; Native American; Hispanic: Mexican Americans, Chicano/as, Puerto Ricans; Southeast Asians: Cambodian, Hmong, Laotian, and Vietnamese; OR McNair Students (students who participated in a McNair Program) OR Wisconsin residents who are first generation to complete a Bachelors degree and who participated in a TRIO Program (Upward Bound, Talent Search, or Educational). The Graduate School administers this fellowship through Graduate Research Scholar Communities (GRS). AOF stipends were approximately \$15,000 for the 2016-2017 academic year (9 mos.) with remission of tuition (Fall and Spring semesters) and health insurance. Both M.S. and Ph.D. applicants are eligible for the AOF. The department nominates top eligible candidates for Ed-GRS automatically - no additional application materials are needed from the applicant. More information about AOFs can be found at <https://grad.wisc.edu/currentstudents/academics/grs/>.

- Students interested in becoming a Residence Hall House Fellow should view the information available at <https://www.housing.wisc.edu/residencehalls-life-staff.htm>.
- Racial and ethnic minority students are encouraged to apply for the American Psychological Association Minority Fellowship Program. Information is available at <http://www.apa.org/pi/mfp/contact.aspx>.

ASSISTANTSHIPS

The Department of Counseling Psychology has a limited number of Project and Teaching Assistantships. Although master's students occasionally receive assistantships in the department, assistantships within the department are primarily awarded to doctoral students. Master's students are encouraged to seek other forms of financial assistance. Other departments on campus do offer assistantships at the master's level and occasionally to students from outside their individual department; you may inquire to other departments directly.

FINANCIAL AID

Information and application materials for financial aid, loans, scholarships, and student employment may be obtained by contacting the Office of Student Financial Aid (<https://financialaid.wisc.edu>) at 333 East Campus Mall, Room 9701, Madison, WI 53706, 608-262-3060. International applicants are encouraged to seek other forms of financial assistance as international students are not eligible for loans and scholarships.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum 60 credits
Credit Requirement

Minimum 51 credits
Residence Credit Requirement

Minimum Graduate Coursework Requirement Half of degree coursework (30 credits out of 60 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements Students are required to attain a minimum course grade of B for all coursework that fulfills the 60-credit requirement.

Assessments and Examinations The Professional Integration Exercise (PIE) is a capstone experience for all master's students, where they have the opportunity to pull together their learning and skills and their overall professional identity. Through this oral clinical case conceptualization, they have the opportunity to demonstrate to the faculty their readiness as a master's-level clinician. The PIE will be conducted in late spring during students' second year of training.

Language Requirements No language requirements.

REQUIRED COURSES

The M.S. degree in counseling requires that students satisfactorily complete coursework, practica experiences, and a professional integration experience. Students earn a minimum of 60 graduate credits. Coursework beyond the 60-credit minimum may be required of students entering with course deficiencies, as enumerated in their letters of admission. Students seeking licensure or certification out of state should check with those states' particular requirements.

The curriculum has been revised in accordance with changes in Wisconsin State licensing requirements with courses only offered once each year. The master's program is a two-year plan that students should follow. The offering of courses is designed for students following the course sequence. In cases where there may be departures from the recommended course sequence, students who depart from the course sequence may be delayed in completing the program and need to consult with their advisors to determine the best course sequence. Students are expected to complete any program deficiencies before they begin the program or during the first semester, at the latest.

The following is an outline of the required courses:

Code	Title	Credits
COUN PSY 620	Special Topics in Counseling and Guidance (Diversity Dialogues, Fall of 1st year)	1
COUN PSY/ ED PSYCH 723	Developmental Processes Across the Life Span	3
COUN PSY/ RP & SE 730	Professional Counseling Orientation	3
COUN PSY 740	Abnormal Behavior and Psychopathology	3
COUN PSY 745	Clinical Mental Health Counseling: Diagnosis and Treatment Planning for Counselors	3
COUN PSY 777	Crisis and Trauma Counseling	3
COUN PSY 791	Foundations of Clinical Mental Health Counseling	3
COUN PSY 800	Theories of Counseling	3
COUN PSY 802	Group Dynamics Processing and Counseling	3
COUN PSY 805	Helping Relationships and Techniques	3
COUN PSY 806	Supervised Practicum in Counseling	3
COUN PSY 808	Supervised Internship in Counseling (2 semesters)	6
COUN PSY 825	Counseling Psychology Techniques With Families	3
COUN PSY 860	Social and Cultural Foundations of Counseling	3
COUN PSY 865	Lifestyle and Career Development	3
COUN PSY 810	Professional Development and Clinical Practice (if needed for additional internship hours)	1-6
RP & SE 540	Assessment of Adults with Disabilities (Course title will be changing to "Assessment and Testing")	3
RP & SE 700	Seminar: Rehabilitation Psychology Research (Research and Evaluation)	2-3
RP & SE 721	Addictions Counseling	3

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://counselingpsych.education.wisc.edu/docs/WebDispenser/counseling-psychology-documents/2017-ms-handbook-final.pdf?sfvrsn=2>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 9 credits of graduate coursework from other institutions towards the 60-credit minimum requirement. Coursework earned five or more years prior to admission to the master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

Coursework taken as part of a student's undergraduate program of study will not be counted towards the 60-credit requirement.

UW–Madison University Special

With program approval students are allowed to count no more than 9 credits of coursework numbered 300 or above taken as a UW–Madison University Special student. Coursework earned five or more years prior to admission to the master's degree is not allowed to satisfy requirements.

PROBATION

When concerns arise about a student's performance which warrants immediate attention, a non-routine review will be initiated. Concerns that would prompt a non-routine review include: academic proficiency (e.g., grade of BC or lower in a required course); clinical competence and/or termination from a practicum placement; interpersonal functioning; and/or unethical behaviors and/or interactions. The student will be notified of the concern by his/her advisor or the training director. The Master's Training Committee will discuss the matter to determine whether the concern will be taken to the full faculty for consultation and/or decision. An ad hoc committee will work with the student to create a "development plan" or a "remediation plan" (i.e., student is under probation), depending on the seriousness of the issue(s). If the concern persists after the remediation plan or the issue(s) are deemed irreparable, the committee may recommend dismissal from the program to the full faculty. If the full faculty vote is in agreement with the recommendation for dismissal, the student will be dismissed from the program.

ADVISOR / COMMITTEE

Upon admission to the master's program, students will be assigned a faculty advisor to facilitate their entry to the program. The faculty advisor has several responsibilities, which include: assisting students with course selection; guiding students' clinical and professional development; guiding students' research, including master's thesis (optional); and giving final approval for master's work. The advisor is also available to answer other questions and concerns that may arise regarding departmental procedures, licensure issues and practicum placement.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

If students have been absent for five or more years they must petition the counseling psychology faculty, in writing, for readmission. If successful, they must file a new Graduate School application for admission and submit it with a new application fee. Master's students who do not enroll for a period of five or more years are required to retake some or all Program coursework. All coursework, including deficiencies, must be completed within eight years of admission to the program.

OTHER

The vast majority of Ph.D. students are funded for their years on campus through a combination of in-department and out-of-department assistantships and fellowships. Graduate assistantships and fellowships typically pay a monthly stipend, often carry a full tuition waiver and provide an excellent benefits package.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Develop knowledge foundational to the practice of mental health counseling including normative and nonnormative human development; individual, group, and couples/family counseling; cultural and social diversity, measurement and evaluation; and exposure to crisis, trauma, and stress.
2. Develop skills for effective individual, family, and group counseling for mental health concerns and well-being as well as effective consultation, evaluation and progress monitoring.
3. Apply principles associated with multiculturalism, polyculturalism, and social justice.
4. Develop understanding, identification with and comportment with the profession of mental health counseling including standards of care, moral and ethical principles, professional identity, professional relationships, professional demeanor, self-reflection, and awareness of impact on others.

PEOPLE

Faculty: Professors Hoyt (chair), Gloria, Quintana, Uttal; Associate Professors Thompson, Valdez; Assistant Professors Budge, Wright; Faculty Associate Lotta; Clinical Associate Professor Graham

CURRICULUM AND INSTRUCTION

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Curriculum and Instruction, Doctoral Minor (p. 391)
- Curriculum and Instruction, M.S. (p. 392)
- Curriculum and Instruction, Ph.D. (p. 408)
- International Education, Doctoral Minor (p. 412)
- Qualitative Research Methodology in Education, Doctoral Minor (p. 412)
- Science Education, Doctoral Minor (p. 412)

PEOPLE

Faculty: Professors Rudolph (chair), Baker (graduate program chair), Gomez, Grant, Graue, E. Halverson, Hawkins, Hess, Koza, Lockwood, Popkewitz, Schweber, Tochon; Associate Professors L. Berland, M. Berland, Feinstein, Ghousseini, Hassett, Ho, Pacheco; Assistant Professors Bullock, Louie, McKinney de Royston, Prasad, Russ, Wardrip, Wright; Affiliate Professors L. Bartlett, T. Dobbs, R. Halverson, P. Matthews, Nathan, H. Zhang. For more information about respective members of the faculty, see People (<http://ci.education.wisc.edu/ci/people/faculty>) on the department website.

CURRICULUM AND INSTRUCTION, DOCTORAL MINOR

REQUIREMENTS

Doctoral students in another UW–Madison program who desire a doctoral minor in the Department of Curriculum and Instruction should seek and enlist a faculty member in the Department of Curriculum and Instruction to serve as their doctoral minor advisor. Twelve credits are required for a doctoral minor in the Department of Curriculum and Instruction. These twelve credits must be from 700 level (unless lower-level courses are designated as having graduate attributes) and above substantive graduate level courses which exclude credits earned through independent reading, independent study, research, and thesis.

PEOPLE

Faculty: Professors Rudolph (chair), Baker (graduate program chair), Gomez, Grant, Graue, E. Halverson, Hawkins, Hess, Koza, Lockwood, Popkewitz, Schweber, Tochon; Associate Professors L. Berland, M. Berland, Feinstein, Ghousseini, Hassett, Ho, Pacheco;

Assistant Professors Bullock, Louie, McKinney de Royston, Prasad, Russ, Wardrip, Wright; Affiliate Professors L. Bartlett, T. Dobbs, R. Halverson, P. Matthews, Nathan, H. Zhang. For more information about respective members of the faculty, see People (<http://ci.education.wisc.edu/ci/people/faculty>) on the department website.

CURRICULUM AND INSTRUCTION, M.S.

MASTER'S DEGREE PROGRAMS

Details of requirements and procedures pertaining to master's degree study in the department are described in the department's M.S. Program Handbook (<https://ci.education.wisc.edu/docs/WebDispenser/c-and-i-documents/ms-handbook-2014.pdf?sfvrsn=2>). Because master's degree students are personally responsible for learning about and following department requirements and procedures, they should familiarize themselves with this document. The handbook is also available at the department office. Master's degree students are also personally responsible for learning about and following Graduate School policies. The curriculum and instruction graduate program office offers an informational meeting for new graduate students at the beginning of each semester.

M.S. IN CURRICULUM AND INSTRUCTION

The M.S. in curriculum and instruction prepares students for advanced work in education. In some cases, work leading to the degree prepares students to enter a new career as an educational specialist (e.g., curriculum developer, content-area specialist, school department head, curriculum supervisor, early childhood specialist, ESL or bilingual teacher, or reading teacher). In other cases, it prepares students to perform at a higher level in their existing job. In yet other cases, it prepares students for Ph.D. study. Motivations for Master's degree work include professional updating, maintenance of accreditation, acquisition of new perspectives and skills, development of specialized knowledge, preparation to work with student teachers, preparation for leadership among teachers, and preparation for advanced graduate study. Whatever their personal reasons for pursuing the degree, Master's degree students should expect both an atmosphere of intellectual inquiry and the serious academic standards befitting a graduate research program in curriculum and instruction.

M.S. IN CURRICULUM AND INSTRUCTION —NAMED OPTIONS (TEACHER CERTIFICATION)

A master of science with secondary teacher certification is offered as an M.S. in Curriculum and Instruction with named options in

- Secondary English Education (p. 395)
- Secondary Mathematics Education (p. 398)
- Secondary Science Education (p. 402)
- Secondary Social Studies Education (p. 405)

ADMISSIONS

MASTER'S APPLICANTS

Official transcripts from all previous post-secondary study and three letters of recommendation are required for all master's degree applicants. (Candidates for the M.S. with named option need only two letters, but may submit three.) Letters of recommendation should be written by persons who are qualified to judge the potential of the applicant as a graduate student. Requests to have letters of recommendation submitted electronically are made as part of the online application for admission. Letters may also be sent directly to the Department of Curriculum and Instruction.

All master's degree applicants are required to submit a detailed statement of reasons for graduate study. This statement should indicate the applicant's primary area of interest, professional objectives, career goals, and why the applicant is interested in pursuing the master's degree in the Department of Curriculum and Instruction. This information is used to gauge the appropriateness of the applicant's program goals in relation to the department's mission and to identify prospective advisors whose research interests match those of the applicant. If an applicant's statement fails to persuade a faculty member to serve as the graduate advisor, the applicant will be refused admission; it is therefore important that this statement be detailed, well-written, and matched to specific areas of study that are available in the department. If an applicant would like for a particular professor to serve as graduate advisor, the applicant should identify the desired advisor in the statement of reasons for graduate study.

All master's degree applicants are required to submit a resume or curriculum vitae (cv).

For the Curriculum and Instruction master's program, if the grade point average (GPA) of an applicant's last 60 semester hours of undergraduate coursework is below 3.0 (on a 4-point scale), the applicant must also take the *Graduate Record Exam* (GRE) general test and have an official report of the scores sent electronically from the Educational Testing Service (ETS) to UW–Madison (institution code: 1846).

International applicants should note additional requirements that are described in the *International Applications* section, below.

INTERNATIONAL APPLICANTS

The department has a long and successful history of working with graduate students from around the world. Over the last 25 years, approximately 130 M.S. degrees were earned by international students; students in this group came from 37 countries. During the same period, approximately 150 Ph.D. degrees were earned by international students in the department; students in this group came from 43 countries. Altogether, approximately one-third of our graduate students in Curriculum and Instruction are international students, which enriches the social and intellectual environment for all faculty and students as we continuously learn from each other.

In accord with Graduate School policy, applicants whose native language is not English or whose undergraduate instruction was not in English must provide official scores from the Test of English as a Foreign Language (TOEFL), International English Language Testing System (IELTS), or the Michigan English Language Assessment Battery (MELAB). An admitted applicant whose internet-based TOEFL (iBT) score is below

92, IELTS score is below 7, or MELAB score is below 82 must take an English assessment test upon arrival. They must then register for any English as a Second Language (ESL) courses that are recommended.

Candidates for the M.S. with named option will also be required to demonstrate advanced proficiency in verbal communication in English to be eligible for ESL certification.

EXPECTED BACKGROUND IN PROFESSIONAL EDUCATION

(Does not apply to M.S. with named options in Secondary English Education, Secondary Mathematics Education, Secondary Science Education, and Secondary Social Studies Education applicants)

A professional background in education (typically, as a certified teacher) is a prerequisite for most graduate areas of study in the Department of Curriculum and Instruction. Applicants to certain areas of study within the department are sometimes admitted without teacher certification, but they are nevertheless required to have taken at least 12 credits in professional education courses that are equivalent to courses taught within a school of education, as judged by the Graduate Program Committee. Applicants lacking this background may be *admitted with deficiencies*. They will then be required to take a specified number of credits in the areas of deficiency, in addition to the course work ordinarily required in the graduate program. Courses taken to remove deficiencies should be chosen in consultation with the graduate advisor, and each of these courses must be taken for a letter grade (not pass/fail). These courses may be carried concurrently with regular graduate courses; but, being additional requirements, they do not count toward requirements of the graduate program.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

FUNDING—FELLOWSHIPS AND FINANCIAL SUPPORT

The department nominates eligible incoming M.S. and Ph.D. students for an Advanced Opportunity Fellowship (AOF). Eligibility criteria for these fellowships can be found at the Graduate School's Funding Information (<https://grad.wisc.edu/studentfunding/currentstudents>) page. Nominees are considered in January by a committee of the Department of Curriculum and Instruction. For an applicant to be considered in this competition, the graduate-application file should be complete by December 1.

University-wide information about financial aid for graduate students is available through the Office of Student Financial Aid (<https://financialaid.wisc.edu>). Additional information about financing graduate education is available from the Graduate School's Types of Funding Available (<https://grad.wisc.edu/funding>) page.

Traditional M.S.: The department itself does not award fellowships or scholarships; however, a limited number of teaching assistantships, project assistantships, research assistantships, and program assistantships are available either in the department or through faculty research projects in the Wisconsin Center for Education Research (<http://www.wcer.wisc.edu>). These assistantships are awarded to qualified, full-time graduate students and typically involve 10–20 hours of professional work each week, usually in close collaboration with one or more professors. Assistantships provide a stipend and may include the cost of tuition (excluding *segregated fees*). Applications for assistantships in the department can be downloaded here (<http://ci.education.wisc.edu/docs/c-and-i-documents/taapplication.pdf>) or requested from the Academic Department Manager, 210A Teacher Education Building, 608-263-4602. Students should also check with individual faculty members about opportunities for assistantships in the department. Any teaching, project, or program assistant in the department must carry a full course load of 8–15 graduate-level credits and make satisfactory progress toward the graduate degree.

M.S. with named option: The School of Education offers a limited number of scholarships and awards for teacher education candidates. The scholarship application window opens each year from February through March. A list of currently available scholarships may be found at the UW Scholarship search page. (<http://scholarships.wisc.edu/Scholarships/findSchlr>) Candidates in the M.S. with named option are not allowed to accept teaching assistantships, project assistantships, research assistantships, nor program assistantships which include tuition remission.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	Yes	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich,

interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum 30 credits

Credit Requirement

Minimum 21 credits

Residence Credit Requirement

Minimum Graduate Coursework Requirement 100% of the credits taken at UW–Madison must be completed graduate-level coursework; courses with Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.

Overall Graduate GPA Requirement 3.25 GPA required.

Other Grade Requirements

Students must earn a B average or above in all coursework.

Assessments and Examinations Thesis & examination required.

Language Requirements

No language requirements other than the English proficiency required for admission.

REQUIRED COURSES

At least 15 of the 30 credits must be from Curriculum & Instruction (<http://guide.wisc.edu/courses/curric>).

NAMED OPTIONS (SUB-MAJORS)

A named option is a formally documented sub-major within an academic major program. Named options appear on the transcript with degree conferral.

- Curriculum and Instruction: Secondary English Education, M.S. (p. 395)
- Curriculum and Instruction: Secondary Mathematics Education, M.S. (p. 398)
- Curriculum and Instruction: Secondary Science Education, M.S. (p. 402)
- Curriculum and Instruction: Secondary Social Studies Education, M.S. (p. 405)

beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://ci.education.wisc.edu/docs/WebDispenser/c-and-i-documents/ms-handbook-2014.pdf?sfvrsn=4>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 9 credits of graduate coursework from other institutions. This coursework does not appear on a UW–Madison transcript nor count toward graduate career GPA. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

With program approval, students are allowed to count no more than 9 credits of coursework numbered 300 or above taken as a UW–Madison University Special student. Coursework earned five or more years prior to admission to a Master's degree is not allowed to satisfy requirements.

PROBATION

The status of a student can be one of two options:

1. Satisfactory progress (progressing according to standards)
2. Unsatisfactory progress (not progressing according to standards; permitted to enroll with specific plan with dates and deadlines in place in regard to removal of unsatisfactory progress to avoid dismissal from the program).

ADVISOR / COMMITTEE

All students are required to have an advisor. An advisor is assigned to all incoming students. To ensure that they are making satisfactory progress toward a degree, students should meet with their advisor on a regular basis.

The advisor serves as the thesis advisor. Students can be suspended from the program, if they do not have an advisor.

CREDITS PER TERM ALLOWED

Students may not enroll for more than 12 credits without first obtaining prior written approval from their advisor.

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies

OTHER

There are a limited number of assistantships in the department for students in M.S. and Ph.D. programs.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. (Breadth of Knowledge) Examples of competence may include demonstrating awareness of historical and intellectual context, educational practices, critical research paradigms within the broader field of Curriculum and Instruction, and theories and approaches from other fields as appropriate for their research.

2. (Depth of Knowledge) Examples of competence may include demonstrating mastery of concepts, theories, and research, and understanding of relevant educational practices and contexts, sufficient to pose questions that extend the current boundaries of knowledge within their chosen subfield of Curriculum and Instruction.

PEOPLE

Faculty: Professors Rudolph (chair), Baker (graduate program chair), Gomez, Grant, Graue, E. Halverson, Hawkins, Hess, Koza, Lockwood, Popkewitz, Schweber, Tochon; Associate Professors L. Berland, M. Berland, Feinstein, Ghouseini, Hassett, Ho, Pacheco; Assistant Professors Bullock, Louie, McKinney de Royston, Prasad, Russ, Wardrip, Wright; Affiliate Professors L. Bartlett, T. Dobbs, R. Halverson, P. Matthews, Nathan, H. Zhang. For more information about respective members of the faculty, see People (<http://ci.education.wisc.edu/ci/people/faculty>) on the department website.

CURRICULUM AND INSTRUCTION: SECONDARY ENGLISH EDUCATION, M.S.

This is a named option in the Curriculum and Instruction M.S. (p.)

A master of science with secondary teacher certification is offered as a Master of Science in Curriculum and Instruction with named options in English, mathematics (p. 398), science (p. 402), and social studies (p. 405). The program is a streamlined, graduate-level program which prepares students for a teaching license both in a specific content area at the secondary level (English, math, science, or social studies) and to work with English language learners (ESL certification). Additional information may be found at uwteach.com (<http://uwteach.com>). Candidates may apply for more than one content area, however they will only be allowed to enroll in one area at a time. *Elementary teacher certification is not available through the Department of Curriculum and Instruction Master's program. Students who desire elementary teacher certification should*

contact Education Academic Services (<https://www.education.wisc.edu/soe/academics/undergraduate-students/academic-advising>).

The M.S. program with named option in Secondary English Education accepts applications starting the summer of the preceding year, until the program reaches its capacity. A new cohort begins each June. The program covers two summers and an intervening academic year. Throughout this time span, students take graduate-level courses and engage in fieldwork associated with those courses. In addition, students must complete a master's project.

ADMISSIONS

Prerequisites to applying to the Secondary English Education named option can be found here (<http://www.uwteach.org/prerequisites3.html>).

ADMISSIONS REQUIREMENTS

- Baccalaureate level / bachelor's degree
- Transcripts
- GPA (grade point average) of 3.0 or better (exceptions can be made on a case-by-case basis)
- Prerequisite courses and experiences
- TOEFL scores (for candidates wherein English is a second language or whose undergraduate study was completed in languages other than English)
- Letters of recommendation
- Statement of purpose/reasons for graduate study
- Resume

Details about these requirements can be found here (<http://www.uwteach.org/admissions-requirements.html>).

HOW TO APPLY

Step 1: Apply to the UW–Madison Graduate School (<https://grad.wisc.edu/apply>)

Information required at this step includes the following:

- Autobiographical data
- Transcripts documenting undergraduate degree from an accredited college
- GRE scores—if applicants' GPA is below 3.0
- International applicants—TOEFL score 92/120 and proof of funding
- Statement of purpose—open-ended format, usually not to exceed one page
- Resume (or short CV) listing your academic and professional experience as well as any other information that might be helpful to us in evaluating your application. (No specific format is required, but it should not exceed two pages in length.)
- Two letters of recommendation—up to three are allowed
- Supplemental application: This section includes open-ended prompts requesting:
 - Further information about coursework or professional experience within the content field
 - GPA from your last 60 credits, and an opportunity share extenuating circumstances if you feel the number does not adequately reflect your academic abilities.
 - A brief summary of your previous work with adolescents, educational settings, and/or speakers of languages other than

English. (Experience in these areas are not required, but are helpful in determining your readiness for the program.)

- In essay format, answers to three prompts specifically tailored to your subject area.
- **Please note:**
 - Be certain you select "Summer" as your Term of Admission in the Graduate School online application.
 - The UW Secondary Education M.S. Program admits new students only for the "summer" term.
 - Be certain you select Curriculum and Instruction M.S.—with your specified content area. This includes secondary education in English, Mathematics, Science or Social Studies.
 - Students may only be enrolled in one subject area. Science and Social Studies certification may include multiple subcategories within the subject area.
 - Please read the Graduate School's Frequently Asked Questions (FAQ) (<http://grad.wisc.edu/admissions/faq>) before completing the online application.

Step 2: Final Decisions

After your application is complete, a content area team will review your application and share their recommendation with you and the Graduate School.

If the recommendation is favorable, the UW Graduate School will make a final decision on your application. At this time official transcripts would need to be submitted.

Paper official transcripts may be sent to:
Department of Curriculum and Instruction, UW–Madison
225 North Mills Street, Madison, WI 53706
Attn: Joey Lubasi

If the recommendation is not favorable, a letter will be sent to you outlining the concern or issue. When applicable, you may be offered an opportunity to remain on a "wait list," as future spots may be come available.

PLEASE REMEMBER THAT THE FIRST APPLICANT REVIEW APPLIES TO APPLICATIONS RECEIVED BY **OCTOBER 15**.

We will review applications after October 15 as space allows.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Students are not permitted to accept teaching, project, or research assistantships or other appointments that would result in a tuition waiver.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	Yes

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 50 credits

Minimum Residence Credit Requirement 50 credits

Minimum Graduate Coursework Requirement 100% of the credits taken at UW–Madison must be completed in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements	Students must earn a B average or above in all coursework.
Assessments and Examinations	Requirements vary by named option; please see the program website
Language Requirements	Candidates must demonstrate advanced proficiency in English to acquire the English as a Second Language certification.

REQUIRED COURSES

There are four distinct subject-area programs within the UW-Madison Secondary Teacher Certification Program (English, Mathematics (p. 398), Science (p. 402), and Social Studies (p. 405)). Students apply to and are admitted to one of these areas. Students in all four, however, go through the program as a cohort and take classes and participate in school field experiences with students from across the subject areas. Teaching and learning about English as a Second Language (ESL) is a co-equal area of certification and is infused throughout the program.

Code	Title	Credits
Summer 1 (Full Time - Mid June to Late August)		
<i>Coursework</i>		
ED POL 600	Problems in Educational Policy	1-3
CURRIC 536	Teaching Diverse Youth in Secondary School	2
CURRIC 672	Issues in ESL Education	2-3
CURRIC 635	Epistemology of Mathematics for Teachers	2
<i>Fieldwork</i> ¹		
CURRIC 510	Community-Based Practicum	1-4
Fall: Academic Semester 1 (Full Time - Early September to Mid January)		
<i>Coursework</i>		
CURRIC 507	Inclusive Education in Secondary Schools	2
ED PSYCH 621	Adolescent Development in Educational Contexts	2
Methods & Practice - Content Area		
CURRIC 673	Learning Second Language and Literacies	1-6
CURRIC 729	Classroom Management for Secondary Educators	1
<i>Fieldwork</i> ²		
CURRIC 511	School-Based Practicum	1-4
Half-Day Student Teaching		
Spring: Academic Semester 2 (Full Time - Mid January to Early June)		
<i>Coursework</i>		
CURRIC 674	Advanced Methods in Teaching English as a Second Language	3-6
Advanced Methods - Content Area		
CURRIC 702	Sociocultural Theory	3
<i>Fieldwork</i> ³		
Full-Day Student Teaching		
Summer 2 (Full Time - Early June to Early August)		

<i>Coursework</i>		
ELPA 640	Legal Rights and Responsibilities for Teachers	1-3
CURRIC 739	Assessment and Data Use for Instructional Improvement in Secondary Schools	1
CURRIC 675	General Seminar	1-3
CURRIC 508	Implementing Universal Design: Curriculum Development & Analysis	1
CURRIC 673	Learning Second Language and Literacies	1-6
ED PSYCH 622	Structuring Secondary Schools for Adolescent Development	1

*Master's Project*⁴

- ¹ The focus of this summer semester includes a field experience in the local community intended to involve program students with adolescents from diverse backgrounds. The university courses present assignments for students to carry out in the practicum sites. Within the content domain, program students will consider how academic subject knowledge is and should be translated into the curriculum.
- ² In this semester, program students are placed in local secondary schools. University courses provide assignments for students in their practicum sites and present concepts useful for understanding schooling, teaching, and students. Topics addressed across all coursework are working with all students, universal curriculum design, understanding contemporary adolescence, and theories of literacy and strategies in learning languages.
- ³ Program students will be immersed in a semester of student teaching. University course work provides assignments for students to carry out in their student teaching as well as concepts and practices that will enhance their instructional effectiveness. Each student will also prepare and teach an instructional unit incorporating key teachings of the university courses from both semesters. This unit will also provide evidence of meeting edTPA requirements.
- ⁴ A portfolio including a multi-faceted unit, with critical reflection and rationale, incorporating major concepts taught in courses. The portfolio will also include artifacts describing how the student has demonstrated proficiency on each of the School of Education's Teaching Standards (<https://careers.education.wisc.edu/pi34/docs/Standards.pdf>). In the final summer, students will complete their master's projects under the direction of their major professors. They will also reflect and further investigate concepts from previous semester courses, and learn central concepts in school law and data assessment.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

NAMED OPTION-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

Students may not transfer in credits of graduate course from other institutions.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

No credits as a UW–Madison University Special student are allowed to count toward the degree.

PROBATION

The status of a student can be one of two options:

1. Satisfactory progress (progressing according to standards)
2. Unsatisfactory progress (not progressing according to standards; permitted to enroll with specific plan with dates and deadlines in place in regard to removal of unsatisfactory progress to avoid dismissal from the program).

ADVISOR / COMMITTEE

All students are required to have an advisor. An advisor is assigned to all incoming students. To ensure that they are making satisfactory progress toward a degree, students should meet with their advisor on a regular basis.

The advisor serves as the thesis advisor. Students can be suspended from the program, if they do not have an advisor.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Students are not permitted to accept teaching, project, or research assistantships or other appointments that would result in a tuition waiver. Students also cannot enroll in other graduate programs or take courses outside the prescribed curriculum.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PEOPLE

Faculty: Professors Rudolph (chair), Baker (graduate program chair), Gomez, Grant, Graue, E. Halverson, Hawkins, Hess, Koza, Lockwood, Popkewitz, Schweber, Tochon; Associate Professors L. Berland, M. Berland, Feinstein, Ghouseini, Hassett, Ho, Pacheco; Assistant Professors Bullock, Louie, McKinney de Royston, Prasad, Russ, Wardrip, Wright; Affiliate Professors L. Bartlett, T. Dobbs, R. Halverson, P. Matthews, Nathan, H. Zhang. For more information about respective members of the faculty, see People (<http://ci.education.wisc.edu/ci/people/faculty>) on the department website.

CURRICULUM AND INSTRUCTION: SECONDARY MATHEMATICS EDUCATION, M.S.

This is a named option in the Curriculum and Instruction M.S. (p.)

A master of science with secondary teacher certification is offered as a Master of Science in Curriculum and Instruction with named options in English (p. 395), mathematics, science (p. 402), and social studies (p. 405). The program is a streamlined, graduate-level program which prepares students for a teaching license both in a specific content area at the secondary level (English, math, science, or social studies) and to work with English language learners (ESL certification). Additional information may be found at uwteach.com (<http://uwteach.com>). Candidates may apply for more than one content area, however they will only be allowed to enroll in one area at a time. *Elementary teacher certification is not available through the Department of Curriculum and Instruction Master's program. Students who desire elementary teacher certification should contact Education Academic Services* (<https://www.education.wisc.edu/soe/academics/undergraduate-students/academic-advising>).

The M.S. program with named option in Secondary Mathematics Education accepts applications starting the summer of the preceding year, until the program reaches its capacity. A new cohort begins each June. The program covers two summers and an intervening academic year. Throughout this time span, students take graduate-level courses and engage in fieldwork associated with those courses. In addition, students must complete a master's project.

ADMISSIONS

Prerequisites to applying to the Secondary Mathematics Education named option can be found here (<http://www.uwteach.org/prerequisites.html>).

ADMISSIONS REQUIREMENTS

- Baccalaureate level / bachelor's degree

- Transcripts
- GPA (grade point average) of 3.0 or better (exceptions can be made on a case by case basis)
- Prerequisite courses and experiences
- TOEFL scores (for candidates wherein English is a second language or whose undergraduate study was completed in languages other than English)
- Letters of recommendation
- Statement of purpose/reasons for graduate study
- Resume

Details about these requirements can be found here (<http://www.uwteach.org/admissions-requirements.html>).

HOW TO APPLY

Step 1: Apply to the UW–Madison Graduate School (<https://grad.wisc.edu/apply>)

Information required at this step includes the following:

- Autobiographical data
- Transcripts documenting undergraduate degree from an accredited college
- GRE scores—if applicants' GPA is below 3.0
- International applicants—TOEFL score 92/120 and proof of funding
- Statement of purpose—open-ended format, usually not to exceed one page
- Resume (or short CV) listing your academic and professional experience as well as any other information that might be helpful to us in evaluating your application. (No specific format is required, but it should not exceed two pages.)
- Two letters of recommendation—up to three are allowed
- Supplemental application: This section includes open-ended prompts requesting:
 - Further information about coursework or professional experience within the content field
 - GPA from your last 60 credits, and an opportunity share extenuating circumstances if you feel the number does not adequately reflect your academic abilities.
 - A brief summary of your previous work with adolescents, educational settings, and/or speakers of languages other than English. (Experience in these areas are not required, but are helpful in determining your readiness for the program.)
 - In essay format, answers to three prompts specifically tailored to your subject area.
- **Please note:**
 - Be certain you select "Summer" as your Term of Admission in the Graduate School online application.
 - The UW Secondary Education M.S. Program admits new students only for the "summer" term.
 - Be certain you select Curriculum and Instruction M.S.—with your specified content area. This includes secondary education in English, Mathematics, Science, or Social Studies.
 - Students may only be enrolled in one subject area. Science and Social Studies certification may include multiple subcategories within the subject area.

- Please read the Graduate School's Frequently Asked Questions (FAQ) (<http://grad.wisc.edu/admissions/faq>) before completing the online application.

Step 2: Final Decisions

After your application is complete, a content area team will review your application and share their recommendation with you and the Graduate School.

If the recommendation is favorable, the UW Graduate School will make a final decision on your application. At this time official transcripts would need to be submitted.

Paper official transcripts may be sent to:

Department of Curriculum and Instruction, UW–Madison
225 North Mills Street, Madison, WI 53706
Attn: Joey Lubasi

If the recommendation is not favorable, a letter will be sent to you outlining the concern or issue. When applicable, you may be offered an opportunity to remain on a "wait list," as future spots may become available.

PLEASE REMEMBER THAT THE FIRST APPLICANT REVIEW APPLIES TO APPLICATIONS RECEIVED BY **OCTOBER 15**.

We will review applications after October 15 as space allows.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Students are not permitted to accept teaching, project, or research assistantships or other appointments that would result in a tuition waiver.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	Yes

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 50 credits

Minimum Residence Credit Requirement 50 credits

Minimum Graduate Coursework Requirement 100% of the credits taken at UW–Madison must be completed in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements Students must earn a B average or above in all coursework.

Assessments and Examinations Requirements vary by named option; please see the program website

Language Requirements Candidates must demonstrate advanced proficiency in English to acquire the English as a Second Language certification.

REQUIRED COURSES

There are four distinct subject-area programs within the UW-Madison Secondary Teacher Certification Program (English, Mathematics (p. 398), Science (p. 402), and Social Studies (p. 405)). Students apply to and are admitted to one of these areas. Students in all four, however, go through the program as a cohort and take classes and

participate in school field experiences with students from across the subject areas. Teaching and learning about English as a Second Language (ESL) is a co-equal area of certification and is infused throughout the program.

Code	Title	Credits
Summer 1 (Full Time - Mid June to Late August)		
<i>Coursework</i>		
ED POL 600	Problems in Educational Policy	1-3
CURRIC 536	Teaching Diverse Youth in Secondary School	2
CURRIC 672	Issues in ESL Education	2-3
CURRIC 635	Epistemology of Mathematics for Teachers	2
<i>Fieldwork</i> ¹		
CURRIC 510	Community-Based Practicum	1-4
Fall: Academic Semester 1 (Full Time - Early September to Mid January)		
<i>Coursework</i>		
CURRIC 507	Inclusive Education in Secondary Schools	2
ED PSYCH 621	Adolescent Development in Educational Contexts	2
Methods & Practice - Content Area		
CURRIC 673	Learning Second Language and Literacies	1-6
CURRIC 729	Classroom Management for Secondary Educators	1
<i>Fieldwork</i> ²		
CURRIC 511	School-Based Practicum	1-4
Half-Day Student Teaching		
Spring: Academic Semester 2 (Full Time - Mid January to Early June)		
<i>Coursework</i>		
CURRIC 674	Advanced Methods in Teaching English as a Second Language	3-6
Advanced Methods - Content Area		
CURRIC 702	Sociocultural Theory	3
<i>Fieldwork</i> ³		
Full-Day Student Teaching		
Summer 2 (Full Time - Early June to Early August)		
<i>Coursework</i>		
ELPA 640	Legal Rights and Responsibilities for Teachers	1-3
CURRIC 739	Assessment and Data Use for Instructional Improvement in Secondary Schools	1
CURRIC 675	General Seminar	1-3
CURRIC 508	Implementing Universal Design: Curriculum Development & Analysis	1
CURRIC 673	Learning Second Language and Literacies	1-6
ED PSYCH 622	Structuring Secondary Schools for Adolescent Development	1
<i>Master's Project</i> ⁴		

- ¹ The focus of this summer semester includes a field experience in the local community intended to involve program students with adolescents from diverse backgrounds. The university courses present assignments for students to carry out in the practicum sites. Within the content domain, program students will consider how academic subject knowledge is and should be translated into the curriculum.
- ² In this semester, program students are placed in local secondary schools. University courses provide assignments for students in their practicum sites and present concepts useful for understanding schooling, teaching, and students. Topics addressed across all coursework are working with all students, universal curriculum design, understanding contemporary adolescence, and theories of literacy and strategies in learning languages.
- ³ Program students will be immersed in a semester of student teaching. University course work provides assignments for students to carry out in their student teaching as well as concepts and practices that will enhance their instructional effectiveness. Each student will also prepare and teach an instructional unit incorporating key teachings of the university courses from both semesters. This unit will also provide evidence of meeting edTPA requirements.
- ⁴ A portfolio including a multi-faceted unit, with critical reflection and rationale, incorporating major concepts taught in courses. The portfolio will also include artifacts describing how the student has demonstrated proficiency on each of the School of Education's Teaching Standards (<https://careers.education.wisc.edu/pi34/docs/Standards.pdf>).
In the final summer, students will complete their master's projects under the direction of their major professors. They will also reflect and further investigate concepts from previous semester courses, and learn central concepts in school law and data assessment.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

NAMED OPTION-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

Students may not transfer in credits of graduate course from other institutions.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

No credits as a UW–Madison University Special student are allowed to count toward the degree.

PROBATION

The status of a student can be one of two options:

1. Satisfactory progress (progressing according to standards)
2. Unsatisfactory progress (not progressing according to standards; permitted to enroll with specific plan with dates and deadlines in place in regard to removal of unsatisfactory progress to avoid dismissal from the program).

ADVISOR / COMMITTEE

All students are required to have an advisor. An advisor is assigned to all incoming students. To ensure that they are making satisfactory progress toward a degree, students should meet with their advisor on a regular basis.

The advisor serves as the thesis advisor. Students can be suspended from the program, if they do not have an advisor.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Students are not permitted to accept teaching, project, or research assistantships or other appointments that would result in a tuition waiver. Students also cannot enroll in other graduate programs or take courses outside the prescribed curriculum.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PEOPLE

Faculty: Professors Rudolph (chair), Baker (graduate program chair), Gomez, Grant, Graue, E. Halverson, Hawkins, Hess, Koza, Lockwood, Popkewitz, Schweber, Tochon; Associate Professors L. Berland, M. Berland, Feinstein, Ghouseini, Hassett, Ho, Pacheco; Assistant Professors Bullock, Louie, McKinney de Royston, Prasad, Russ, Wardrip, Wright; Affiliate Professors L. Bartlett, T. Dobbs, R. Halverson, P. Matthews, Nathan, H. Zhang. For more information about respective members of the faculty, see People (<http://ci.education.wisc.edu/ci/people/faculty>) on the department website.

CURRICULUM AND INSTRUCTION: SECONDARY SCIENCE EDUCATION, M.S.

This is a named option in the Curriculum & Instruction M.S. (p.)

A Master of Science with secondary teacher certification is offered as a Master of Science in curriculum and instruction with named options in English (p. 395), mathematics (p. 398), science, and social studies (p. 405). The program is a streamlined, graduate-level program which prepares students for a teaching license both in a specific content area at the secondary level (English, math, science, or social studies) and to work with English language learners (ESL certification). Additional information may be found at uwteach.com (<http://uwteach.com>). Candidates may apply for more than one content area, however they will only be allowed to enroll in one area at a time. *Elementary teacher certification is not available through the Department of Curriculum and Instruction Master's program. Students who desire elementary teacher certification should contact Education Academic Services* (<https://www.education.wisc.edu/soe/academics/undergraduate-students/academic-advising>).

The M.S. program with named option in Secondary Science Education accepts applications starting the summer of the preceding year, until the program reaches its capacity. A new cohort begins each June. The program covers two summers and an intervening academic year. Throughout this time span, students take graduate-level courses and engage in fieldwork associated with those courses. In addition, students must complete a Master's project.

ADMISSIONS

Prerequisites to applying to the Secondary Science Education named option can be found here (<http://www.uwteach.org/prerequisites2.html>).

ADMISSIONS REQUIREMENTS

- Baccalaureate level / bachelor's degree
- Transcripts
- GPA (grade point average) of 3.0 or better (exceptions can be made on a case by case basis)
- Prerequisite courses and experiences
- TOEFL scores (for candidates wherein English is a second language or whose undergraduate study was completed in languages other than English)
- Letters of recommendation
- Statement of purpose/reasons for graduate study
- Resume

Details about these requirements can be found here (<http://www.uwteach.org/admissions-requirements.html>).

HOW TO APPLY

Step 1: Apply to the UW-Madison Graduate School (<https://grad.wisc.edu/apply>)

Information required at this step includes the following:

- Autobiographical data

- Transcripts documenting undergraduate degree from an accredited college
- GRE scores—if applicants' GPA is below 3.0
- International applicants—TOEFL score 92/120 and proof of funding
- Statement of purpose—open-ended format, usually not to exceed one page
- Resume (or short CV) listing your academic and professional experience as well as any other information that might be helpful to us in evaluating your application. (No specific format is required, but it should not exceed two pages in length.)
- Two letters of recommendation—up to three are allowed
- Supplemental application: This section includes open-ended prompts requesting:
 - Further information about coursework or professional experience within the content field
 - GPA from your last 60 credits, and an opportunity share extenuating circumstances if you feel the number does not adequately reflect your academic abilities.
 - A brief summary of your previous work with adolescents, educational settings, and/or speakers of languages other than English. (Experience in these areas are not required, but are helpful in determining your readiness for the program.)
 - In essay format, answers to three prompts specifically tailored to your subject area.
- **Please note:**
 - Be certain you select "Summer" as your Term of Admission in the Graduate School online application.
 - The UW Secondary Education M.S. Program admits new students only for the "summer" term.
 - Be certain you select Curriculum and Instruction M.S.—with your specified content area. This includes secondary education in English, Mathematics, Science or Social Studies.
 - Students may only be enrolled in one subject area. Science and Social Studies certification may include multiple subcategories within the subject area.
 - Please read the Graduate School's Frequently Asked Questions (FAQ) (<http://grad.wisc.edu/admissions/faq>) before completing the online application.

Step 2: Final Decisions

After your application is complete, a content area team will review your application and share their recommendation with you and the Graduate School.

If the recommendation is favorable, the UW Graduate School will make a final decision on your application. At this time official transcripts would need to be submitted.

Paper official transcripts may be sent to:
Department of Curriculum and Instruction, UW–Madison
225 North Mills Street, Madison, WI 53706
Attn: Joey Lubasi

If the recommendation is not favorable, a letter will be sent to you outlining the concern or issue. When applicable, you may be offered an opportunity to remain on a "wait list," as future spots may be come available.

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GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Students are not permitted to accept teaching, project, or research assistantships or other appointments that would result in a tuition waiver.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	Yes

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum 50 credits

Credit Requirement

Minimum 50 credits

Residence Credit Requirement

Minimum Graduate Coursework Requirement 100% of the credits taken at UW–Madison must be completed in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements

Students must earn a B average or above in all coursework.

Assessments and Examinations Requirements vary by named option; please see the program website

Language Requirements Candidates must demonstrate advanced proficiency in English to acquire the English as a Second Language certification.

REQUIRED COURSES

There are four distinct subject-area programs within the UW-Madison Secondary Teacher Certification Program (English (p. 395), Mathematics (p. 398), Science, and Social Studies (p. 405)). Students apply to and are admitted to one of these areas. Students in all four, however, go through the program as a cohort and take classes and participate in school field experiences with students from across the subject areas. Teaching and learning about English as a Second Language (ESL) is a co-equal area of certification and is infused throughout the program.

Code	Title	Credits
Summer 1 (Full Time - Mid June to Late August)		
<i>Coursework</i>		
ED POL 600	Problems in Educational Policy	1-3
CURRIC 536	Teaching Diverse Youth in Secondary School	2
CURRIC 672	Issues in ESL Education	2-3
CURRIC 635	Epistemology of Mathematics for Teachers	2
<i>Fieldwork</i> ¹		
CURRIC 510	Community-Based Practicum	1-4
Fall: Academic Semester 1 (Full Time - Early September to Mid January)		
<i>Coursework</i>		
CURRIC 507	Inclusive Education in Secondary Schools	2
ED PSYCH 621	Adolescent Development in Educational Contexts	2
Methods & Practice - Content Area		
CURRIC 673	Learning Second Language and Literacies	1-6

CURRIC 729	Classroom Management for Secondary Educators	1
<i>Fieldwork</i> ²		
CURRIC 511	School-Based Practicum	1-4
Half-Day Student Teaching		
Spring: Academic Semester 2 (Full Time - Mid January to Early June)		
<i>Coursework</i>		
CURRIC 674	Advanced Methods in Teaching English as a Second Language	3-6
Advanced Methods - Content Area		
CURRIC 702	Sociocultural Theory	3
<i>Fieldwork</i> ³		
Full-Day Student Teaching		
Summer 2 (Full Time - Early June to Early August)		
<i>Coursework</i>		
ELPA 640	Legal Rights and Responsibilities for Teachers	1-3
CURRIC 739	Assessment and Data Use for Instructional Improvement in Secondary Schools	1
CURRIC 675	General Seminar	1-3
CURRIC 508	Implementing Universal Design: Curriculum Development & Analysis	1
CURRIC 673	Learning Second Language and Literacies	1-6
ED PSYCH 622	Structuring Secondary Schools for Adolescent Development	1
<i>Master's Project</i> ⁴		

¹ The focus of this summer semester includes a field experience in the local community intended to involve program students with adolescents from diverse backgrounds. The university courses present assignments for students to carry out in the practicum sites. Within the content domain, program students will consider how academic subject knowledge is and should be translated into the curriculum.

² In this semester, program students are placed in local secondary schools. University courses provide assignments for students in their practicum sites and present concepts useful for understanding schooling, teaching, and students. Topics addressed across all coursework are working with all students, universal curriculum design, understanding contemporary adolescence, and theories of literacy and strategies in learning languages.

³ Program students will be immersed in a semester of student teaching. University course work provides assignments for students to carry out in their student teaching as well as concepts and practices that will enhance their instructional effectiveness. Each student will also prepare and teach an instructional unit incorporating key teachings of the university courses from both semesters. This unit will also provide evidence of meeting edTPA requirements.

⁴ A portfolio including a multi-faceted unit, with critical reflection and rationale, incorporating major concepts taught in courses. The portfolio will also include artifacts describing how the student has demonstrated proficiency on each of the School of Education's Teaching Standards (<https://careers.education.wisc.edu/pi34/docs/Standards.pdf>).

In the final summer, students will complete their master's projects under the direction of their major professors. They will also reflect and further investigate concepts from previous semester courses, and learn central concepts in school law and data assessment.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

NAMED OPTION-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

Students may not transfer in credits of graduate course from other institutions.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

No credits as a UW–Madison University Special student are allowed to count toward the degree.

PROBATION

The status of a student can be one of two options:

1. Satisfactory progress (progressing according to standards)
2. Unsatisfactory progress (not progressing according to standards; permitted to enroll with specific plan with dates and deadlines in place in regard to removal of unsatisfactory progress to avoid dismissal from the program).

ADVISOR / COMMITTEE

All students are required to have an advisor. An advisor is assigned to all incoming students. To ensure that they are making satisfactory progress toward a degree, students should meet with their advisor on a regular basis.

The advisor serves as the thesis advisor. Students can be suspended from the program, if they do not have an advisor.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students

completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Students are not permitted to accept teaching, project, or research assistantships or other appointments that would result in a tuition waiver. Students also cannot enroll in other graduate programs or take courses outside the prescribed curriculum.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PEOPLE

Faculty: Professors Rudolph (chair), Baker (graduate program chair), Gomez, Grant, Graue, E. Halverson, Hawkins, Hess, Koza, Lockwood, Popkewitz, Schweber, Tochon; Associate Professors L. Berland, M. Berland, Feinstein, Ghouseini, Hassett, Ho, Pacheco; Assistant Professors Bullock, Louie, McKinney de Royston, Prasad, Russ, Wardrip, Wright; Affiliate Professors L. Bartlett, T. Dobbs, R. Halverson, P. Matthews, Nathan, H. Zhang. For more information about respective members of the faculty, see People (<http://ci.education.wisc.edu/ci/people/faculty>) on the department website.

CURRICULUM AND INSTRUCTION: SECONDARY SOCIAL STUDIES EDUCATION, M.S.

This is a named option in the Curriculum and Instruction M.S. (p.)

A master of science with secondary teacher certification is offered as a Master of Science in Curriculum and Instruction with named options in English (p. 395), mathematics (p. 398), science (p. 402), and social studies. The program is a streamlined, graduate-level program which prepares students for a teaching license both in a specific content area at the secondary level (English, math, science, or social studies) and to work with English language learners (ESL certification). Additional information may be found at uwteach.com (<http://uwteach.com>). Candidates may apply for more than one content area, however they will only be allowed to enroll in one area at a time. *Elementary teacher certification is not available through the Department of Curriculum and Instruction Master's program. Students who desire elementary teacher certification should contact Education Academic Services* (<https://www.education.wisc.edu/soe/academics/undergraduate-students/academic-advising>).

The M.S. program with named option in Secondary Social Studies Education accepts applications starting the summer of the preceding year, until the program reaches its capacity. A new cohort begins each June. The program covers two summers and an intervening academic year. Throughout this time span, students take graduate-level courses and engage in fieldwork associated with those courses. In addition, students must complete a master's project.

ADMISSIONS

Prerequisites to applying to the Secondary Social Studies Education named option can be found here (<http://www.uwteach.org/prerequisites1.html>).

ADMISSIONS REQUIREMENTS

- Baccalaureate level / bachelor's degree
- Transcripts
- GPA (grade point average) of 3.0 or better (exceptions can be made on a case by case basis)
- Prerequisite courses and experiences
- TOEFL scores (for candidates wherein English is a second language or whose undergraduate study was completed in languages other than English)
- Letters of recommendation
- Statement of purpose/reasons for graduate study
- Resume

Details about these requirements can be found here (<http://www.uwteach.org/admissions-requirements.html>).

HOW TO APPLY

Step 1: Apply to the UW-Madison Graduate School (<https://grad.wisc.edu/apply>)

Information required at this step includes the following:

- Autobiographical data
- Transcripts documenting undergraduate degree from an accredited college
- GRE scores—if applicants' GPA is below 3.0
- International applicants—TOEFL score 92/120 and proof of funding
- Statement of purpose—open-ended format, usually not to exceed one page
- Resume (or short CV) listing your academic and professional experience as well as any other information that might be helpful to us in evaluating your application. (No specific format is required, but it should not exceed two pages in length.)
- Two letters of recommendation—up to three are allowed
- Supplemental application: This section includes open-ended prompts requesting:
 - Further information about coursework or professional experience within the content field
 - GPA from your last 60 credits, and an opportunity share extenuating circumstances if you feel the number does not adequately reflect your academic abilities.
 - A brief summary of your previous work with adolescents, educational settings, and/or speakers of languages other than English. (Experience in these areas are not required, but are helpful in determining your readiness for the program.)
 - In essay format, answers to three prompts specifically tailored to your subject area.
- **Please note:**
 - Be certain you select "Summer" as your Term of Admission in the Graduate School online application.

- The UW Secondary Education M.S. Program admits new students only for the "summer" term.
- Be certain you select Curriculum and Instruction M.S.—with your specified content area. This includes secondary education in English, Mathematics, Science or Social Studies.
- Students may only be enrolled in one subject area. Science and Social Studies certification may include multiple subcategories within the subject area.
- Please read the Graduate School's Frequently Asked Questions (FAQ) (<http://grad.wisc.edu/admissions/faq>) before completing the online application.

Step 2: Final Decisions

After your application is complete, a content area team will review your application and share their recommendation with you and the Graduate School.

If the recommendation is favorable, the UW Graduate School will make a final decision on your application. At this time official transcripts would need to be submitted.

Paper official transcripts may be sent to:
 Department of Curriculum and Instruction, UW–Madison
 225 North Mills Street, Madison, WI 53706
 Attn: Joey Lubasi

If the recommendation is not favorable, a letter will be sent to you outlining the concern or issue. When applicable, you may be offered an opportunity to remain on a "wait list," as future spots may be come available.

PLEASE REMEMBER THAT THE FIRST APPLICANT REVIEW APPLIES TO APPLICATIONS RECEIVED BY **OCTOBER 15**.

We will review applications after October 15 as space allows.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Students are not permitted to accept teaching, project, or research assistantships or other appointments that would result in a tuition waiver.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	Yes

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement	50 credits
Minimum Residence Credit Requirement	50 credits
Minimum Graduate Coursework Requirement	100% of the credits taken at UW–Madison must be completed in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (https://registrar.wisc.edu/course-guide/).
Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	Students must earn a B average or above in all coursework.
Assessments and Examinations	Requirements vary by named option; please see the program website

Language Requirements Candidates must demonstrate advanced proficiency in English to acquire the English as a Second Language certification.

REQUIRED COURSES

There are four distinct subject-area programs within the UW-Madison Secondary Teacher Certification Program (English (p. 395), Mathematics (p. 398), Science (p. 402), and Social Studies). Students apply to and are admitted to one of these areas. Students in all four, however, go through the program as a cohort and take classes and participate in school field experiences with students from across the subject areas. Teaching and learning about English as a Second Language (ESL) is a co-equal area of certification and is infused throughout the program.

Code	Title	Credits
Summer 1 (Full Time - Mid June to Late August)		
<i>Coursework</i>		
ED POL 600	Problems in Educational Policy	1-3
CURRIC 536	Teaching Diverse Youth in Secondary School	2
CURRIC 672	Issues in ESL Education	2-3
CURRIC 635	Epistemology of Mathematics for Teachers	2
<i>Fieldwork</i> ¹		
CURRIC 510	Community-Based Practicum	1-4
Fall: Academic Semester 1 (Full Time - Early September to Mid January)		
<i>Coursework</i>		
CURRIC 507	Inclusive Education in Secondary Schools	2
ED PSYCH 621	Adolescent Development in Educational Contexts	2
Methods & Practice - Content Area		
CURRIC 673	Learning Second Language and Literacies	1-6
CURRIC 729	Classroom Management for Secondary Educators	1
<i>Fieldwork</i> ²		
CURRIC 511	School-Based Practicum	1-4
Half-Day Student Teaching		
Spring: Academic Semester 2 (Full Time - Mid January to Early June)		
<i>Coursework</i>		
CURRIC 674	Advanced Methods in Teaching English as a Second Language	3-6
Advanced Methods - Content Area		
CURRIC 702	Sociocultural Theory	3
<i>Fieldwork</i> ³		
Full-Day Student Teaching		
Summer 2 (Full Time - Early June to Early August)		
<i>Coursework</i>		
ELPA 640	Legal Rights and Responsibilities for Teachers	1-3

CURRIC 739	Assessment and Data Use for Instructional Improvement in Secondary Schools	1
CURRIC 675	General Seminar	1-3
CURRIC 508	Implementing Universal Design: Curriculum Development & Analysis	1
CURRIC 673	Learning Second Language and Literacies	1-6
ED PSYCH 622	Structuring Secondary Schools for Adolescent Development	1

*Master's Project*⁴

- ¹ The focus of this summer semester includes a field experience in the local community intended to involve program students with adolescents from diverse backgrounds. The university courses present assignments for students to carry out in the practicum sites. Within the content domain, program students will consider how academic subject knowledge is and should be translated into the curriculum.
- ² In this semester, program students are placed in local secondary schools. University courses provide assignments for students in their practicum sites and present concepts useful for understanding schooling, teaching, and students. Topics addressed across all coursework are working with all students, universal curriculum design, understanding contemporary adolescence, and theories of literacy and strategies in learning languages.
- ³ Program students will be immersed in a semester of student teaching. University course work provides assignments for students to carry out in their student teaching as well as concepts and practices that will enhance their instructional effectiveness. Each student will also prepare and teach an instructional unit incorporating key teachings of the university courses from both semesters. This unit will also provide evidence of meeting edTPA requirements.
- ⁴ A portfolio including a multi-faceted unit, with critical reflection and rationale, incorporating major concepts taught in courses. The portfolio will also include artifacts describing how the student has demonstrated proficiency on each of the School of Education's Teaching Standards (<https://careers.education.wisc.edu/pi34/docs/Standards.pdf>). In the final summer, students will complete their master's projects under the direction of their major professors. They will also reflect and further investigate concepts from previous semester courses, and learn central concepts in school law and data assessment.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

NAMED OPTION-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

Students may not transfer in credits of graduate course from other institutions.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

No credits as a UW–Madison University Special student are allowed to count toward the degree.

PROBATION

The status of a student can be one of two options:

1. Satisfactory progress (progressing according to standards)
2. Unsatisfactory progress (not progressing according to standards; permitted to enroll with specific plan with dates and deadlines in place in regard to removal of unsatisfactory progress to avoid dismissal from the program).

ADVISOR / COMMITTEE

All students are required to have an advisor. An advisor is assigned to all incoming students. To ensure that they are making satisfactory progress toward a degree, students should meet with their advisor on a regular basis.

The advisor serves as the thesis advisor. Students can be suspended from the program, if they do not have an advisor.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Students are not permitted to accept teaching, project, or research assistantships or other appointments that would result in a tuition waiver. Students also cannot enroll in other graduate programs or take courses outside the prescribed curriculum.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PEOPLE

Faculty: Professors Rudolph (chair), Baker (graduate program chair), Gomez, Grant, Graue, E. Halverson, Hawkins, Hess, Koza, Lockwood, Popkewitz, Schweber, Tochon; Associate Professors L. Berland, M. Berland, Feinstein, Ghouseini, Hassett, Ho, Pacheco; Assistant Professors Bullock, Louie, McKinney de Royston, Prasad, Russ, Wardrip, Wright; Affiliate Professors L. Bartlett, T. Dobbs, R. Halverson, P. Matthews, Nathan, H. Zhang. For more information about respective members of the faculty, see People (<http://ci.education.wisc.edu/ci/people/faculty>) on the department website.

CURRICULUM AND INSTRUCTION, PH.D.

The Department of Curriculum and Instruction offers graduate studies that lead to the Master of Science (M.S.) in Curriculum and Instruction (p. 392) and the Doctor of Philosophy (Ph.D.) in Curriculum and Instruction. Each graduate student must concentrate in one of the department's areas of study, listed in the next section.

AREAS OF STUDY

In accord with interests and professional goals, each admitted graduate student is assigned to an *area of study* and to an initial faculty advisor in that area. Areas of study are bilingual education, curriculum studies, digital media, early childhood studies, English as a second language, global studies, literacy studies, mathematics education, multicultural education, music education, science education, social studies education, teacher education, and world language education.

The goals of doctoral study in the Department of Curriculum and Instruction are to help students develop abilities for research in the field of curriculum and instruction, imbuing them with a distinctive theoretical and critical edge; develop expertise in one of the department's areas of study, listed previously; acquire greater competence in curriculum evaluation and development; improve understanding of the teaching–learning process; gain depth and breadth of knowledge in related academic fields; and build a broadened professional background in areas related to curriculum and instruction, such as anthropology, history, philosophy, sociology of education, administration, counseling, educational psychology, and supervision.

Ph.D. study in the department is research-oriented. It prepares students for different forms of intellectual leadership in education including research, curriculum analysis and development, teacher education, and other teaching in higher education, and leadership positions in educational agencies. These different forms of leadership are not mutually exclusive, but the relative emphasis given to each varies among students and areas of study.

Details of requirements and procedures pertaining to Ph.D. study in the department are described in the department's Ph.D. Degree Program Handbook (https://ci.education.wisc.edu/docs/WebDispenser/c-and-i-documents/phd_handbook-2014.pdf?sfvrsn=2). Doctoral students are responsible for learning about and following department requirements and procedures; they should therefore familiarize themselves with this document, a printed copy of which can be picked up at the curriculum and instruction graduate program office. Ph.D. students are also responsible for learning about and following Graduate School policies. The curriculum and instruction graduate program office offers an informational meeting for new graduate students at the beginning of each semester.

ADMISSIONS

PH.D. APPLICANTS

Ph.D. applicants are required to supplement the application with the items enumerated below.

- 1. Official transcripts.** Official transcripts from all previous postsecondary study are required for all Ph.D. applicants.
- 2. Graduate Record Exam (GRE) general test.** Ph.D. applicants should have an official report of their Graduate Record Exam (GRE) general test scores sent electronically from the Educational Testing Service (ETS) to UW–Madison (institution code: 1846).
- 3. Evidence of writing ability.** Ph.D. applicants are required to provide evidence of their writing ability by submitting a writing sample (master's thesis, academic paper from a graduate course, a journal article, or any other writing which the applicant believes can be used to judge writing ability). This should be uploaded to the application.
- 4. Three letters that include appraisal of academic competence.** Ph.D. applicants are required to have three letters of reference assessing their academic and professional competence. Letters of reference written for teachers ordinarily include an evaluation of their professional competence, and the department does consider that information. However, the department needs letters that also give a knowledgeable appraisal of the applicant's academic competence and research capability. A student's former professors are usually best able to provide this, so the department encourages letters from such referees. Printed letters of recommendation may be sent directly to the Curriculum and Instruction Graduate Program Office, but persons writing recommendations may find it faster and more convenient to submit their recommendations electronically through the online application.
- 5. Statement of reasons for doctoral study.** Each Ph.D. applicant is required to submit a detailed statement of reasons for doctoral study. The statement should indicate the applicant's primary area of interest, professional objectives, career goals, and why the applicant is interested in pursuing a research degree in the Department of Curriculum and Instruction. This information is used to gauge the appropriateness of the applicant's program goals in relation to the department's mission and to identify prospective advisors whose research interests match those of the applicant. If an applicant's statement fails to persuade a faculty member to serve as the graduate advisor, the applicant will be refused admission; it is therefore important that this statement be detailed, well-written, and matched to specific areas of study that are available in the department. If an applicant would like for a particular professor to serve as graduate advisor, the applicant should identify the desired advisor in the statement of reasons for graduate study.

6. Resume or curriculum vitae (cv).

International applicants should note additional requirements that are described in the International Applications section, below.

INTERNATIONAL APPLICANTS

The department has a long and successful history of working with graduate students from around the world. Over the last 25 years, approximately 130 M.S. degrees were earned by international students; students in this group came from 37 countries. During the same period, approximately 150 Ph.D. degrees were earned by international students in the department; students in this group came from 43 countries. Altogether, approximately one-third of our graduate students in Curriculum and Instruction are international students, which enriches the social and intellectual environment for all faculty and students as we continuously learn from each other.

In accord with Graduate School policy, applicants whose native language is not English or whose undergraduate instruction was not in English must provide official scores from the Test of English as a Foreign Language (TOEFL), International English Language Testing System (IELTS), or the Michigan English Language Assessment Battery (MELAB). An admitted applicant whose internet-based TOEFL (iBT) score is below 92, IELTS score is below 7, or MELAB score is below 82 must take an English assessment test upon arrival. They must then register for any English as a Second Language (ESL) courses that are recommended.

EXPECTED BACKGROUND IN PROFESSIONAL EDUCATION

A professional background in education (typically, as a certified teacher) is a prerequisite for most graduate areas of study in the Department of Curriculum and Instruction. Applicants to certain areas of study within the department are sometimes admitted without teacher certification, but they are nevertheless required to have taken at least 12 credits in professional education courses that are equivalent to courses taught within a school of education, as judged by the Graduate Program Committee. Applicants lacking this background may be *admitted with deficiencies*. They will then be required to take a specified number of credits in the areas of deficiency, in addition to the course work ordinarily required in the graduate program. Courses taken to remove deficiencies should be chosen in consultation with the graduate advisor, and each of these courses must be taken for a letter grade (not pass/fail). These courses may be carried concurrently with regular graduate courses; but, being additional requirements, they do not count toward requirements of the graduate program.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from

the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

FUNDING - FELLOWSHIPS AND FINANCIAL SUPPORT

The department nominates eligible incoming M.S. and Ph.D. students for an Advanced Opportunity Fellowship (AOF). Eligibility criteria for these fellowships can be found at the Graduate School's Funding Information (<https://grad.wisc.edu/studentfunding/currentstudents>) page. The department nominates its most academically competitive Ph.D. candidates for the *Social Studies Division Fellowships*. Nominees are considered in January by a committee of the Department of Curriculum and Instruction. For an applicant to be considered in this competition, the graduate-application file should be complete by December 1.

University-wide information about financial aid for graduate students is available through the Office of Student Financial Aid (<https://financialaid.wisc.edu>). Additional information about financing graduate education is available from the Graduate School's Types of Funding Available (<https://grad.wisc.edu/funding>) page.

The department itself does not award fellowships or scholarships; however, a limited number of teaching assistantships, project assistantships, research assistantships, and program assistantships are available either in the department or through faculty research projects in the Wisconsin Center for Education Research (<http://www.wcer.wisc.edu>). These assistantships are awarded to qualified, full-time graduate students and typically involve 10–20 hours of professional work each week, usually in close collaboration with one or more professors. Assistantships provide a stipend and may include the cost of tuition (excluding *segregated fees*). Applications for assistantships in the department can be downloaded here (<http://ci.education.wisc.edu/docs/c-and-i-documents/taapplication.pdf>) or requested from the Academic Department Manager, 210A Teacher Education Building, 608-263-4602. Students should also check with individual faculty members about opportunities for assistantships in the department. Any teaching, project, or program assistant in the department must carry a full course load of 8–15 graduate-level credits and make satisfactory progress toward the graduate degree.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses

and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules.

Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum 51 credits

Credit Requirement

Minimum 36 credits beyond the master's before taking the Residence preliminary examination

Credit Requirement

Minimum 36 credits out of 51 total credits must be completed in Graduate graduate-level coursework; courses with the Graduate Coursework Level Coursework attribute are identified and searchable Requirement in the university's Course Guide.

Overall 3.25 GPA required.

Graduate GPA Requirement

Other Grade Ph.D. students must earn a B average or above in all Requirements coursework.

Assessments and Examinations Doctoral students must pass the preliminary examination within five years of starting the program.

Language Requirements

No language requirements other than the English proficiency required for admission.

Doctoral Minor/Breadth Requirements All doctoral students are required to complete a minor. Students completing an external minor must take at least 9 credits. Students completing a distributed minor must take 12 credits from two or more programs forming a coherent topic, and can include coursework from Curriculum & Instruction if the minor is Qualitative Research Methods.

REQUIRED COURSES

51 credits minimum are needed to graduate. At least 36 of these must be taken after the student enters the Ph.D. program. Within those 36 credits:

- For students without a UW–Madison Curriculum & Instruction M.S., minimum of 18 must be new Curriculum & Instruction (<http://guide.wisc.edu/courses/curric>) credits. For students with a UW–Madison Curriculum & Instruction M.S., a minimum of 12 must be new Curriculum & Instruction (<http://guide.wisc.edu/courses/curric>) credits.
- A minor (9–12 credits).

- Option A—External—9 credits.
- Option B—Distributed—12 credits.
- CURRIC 712 Introduction to Curriculum and Instruction: Research and Resources.
- 3 research method classes (from 2 different traditions as determined by advisor).

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (https://ci.education.wisc.edu/docs/WebDispenser/c-and-i-documents/phd_handbook-2014.pdf?sfvrsn=6) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

No prior coursework from other institutions can be counted in the 36 credits required before taking the preliminary examination in Curriculum and Instruction.

UW—Madison Undergraduate

No credits from a UW undergraduate or Master's degree are allowed to count toward the Ph.D. degree in Curriculum and Instruction.

UW—Madison University Special

With program approval, students are allowed to count no more than 9 credits of coursework numbered 300 or above taken as a UW—Madison University Special student. Coursework earned five or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

PROBATION

The status of a student can be one of two options:

1. Satisfactory progress (progressing according to standards)
2. Unsatisfactory progress (not progressing according to standards; permitted to enroll with specific plan with dates and deadlines in place in regard to removal of unsatisfactory progress to avoid dismissal from the program).

ADVISOR / COMMITTEE

All students are required to have an advisor. An advisor is assigned to all incoming students. To ensure they are making satisfactory progress toward a degree, students should meet with their advisor on a regular basis.

The advisor serves as the dissertator advisor. Students can be suspended from the program, if they do not have an advisor.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within 5 years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

There are a limited number of assistantships in the department for students in M.S. and Ph.D. programs.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. (Breadth of Knowledge) Examples of competence may include demonstrating awareness of historical and intellectual context, educational practices, critical research paradigms within the broader field of Curriculum and Instruction, and theories and approaches from other fields as appropriate for their research.
2. (Depth of Knowledge) Examples of competence may include demonstrating mastery of concepts, theories, and research, and understanding of relevant educational practices and contexts, sufficient to pose questions that extend the current boundaries of knowledge within their chosen subfield of Curriculum and Instruction.
3. (Research Approaches and Epistemological Foundations) Examples of competence may include articulating research problems that build on history, theory, research, and practice within their subfield of Curriculum and Instruction; choosing research methods appropriate to those problems and demonstrating understanding of epistemological foundations underlying those methods.

PEOPLE

Faculty: Professors Rudolph (chair), Baker (graduate program chair), Gomez, Grant, Graue, E. Halverson, Hawkins, Hess, Koza, Lockwood, Popkewitz, Schweber, Tochon; Associate Professors L. Berland, M. Berland, Feinstein, Ghouseine, Hassett, Ho, Pacheco; Assistant Professors Bullock, Louie, McKinney de Royston, Prasad, Russ, Wardrip, Wright; Affiliate Professors L. Bartlett, T. Dobbs, R. Halverson, P. Matthews, Nathan, H. Zhang. For more information about respective

members of the faculty, see People (<http://ci.education.wisc.edu/ci/people/faculty>) on the department website.

INTERNATIONAL EDUCATION, DOCTORAL MINOR

Doctoral students may pursue an Option A minor in international education. Courses are selected from across the School of Education departments. Participating departments offering courses toward this Option A minor are the Department of Curriculum and Instruction, the Department of Educational Leadership and Policy Analysis, the Department of Educational Policy Studies, the Department of Counseling Psychology, the Department of Dance, and the Department of Art.

REQUIREMENTS

The 12-credit minor in international education is composed of graduate-level international education courses. These courses comprise a minimum of 50 percent of content devoted to international topics/issues. Coursework for the minor must be distributed as follows: at least one 3-credit course with an emphasis on disciplinary theory or research; three additional courses at the 500 level or above. Students are expected to achieve a B or better in four international education courses at the 500 level or above in order to qualify for the international education minor.

Students choosing this minor select, in consultation with the chair of the School of Education Global Education Committee (Lesley Bartlett) and an advisor from their home department, education-related courses with significant international content. This minor must be approved in accordance with the student's home department procedures.

PEOPLE

Faculty: Professors Bartlett (Education Policy Studies; current contact for the minor), Wang (Educational Leadership and Policy Analysis), Bal (RPSE), Kaplan (Educational Psychology), Hawkins (Curriculum and Instruction), Kendall (Educational Policy Studies), Walbarger (Kinesiology), Skog (Dance), Hilyard (Art)

QUALITATIVE RESEARCH METHODOLOGY IN EDUCATION, DOCTORAL MINOR

A minor in Qualitative Research Methodology in Education provides important grounding for students interested in doing a dissertation employing qualitative methods. It also complements a focus on quantitative methods so that students would come out of the graduate program with knowledge and expertise in research methodology (more than a set of tools but a theoretical understanding of the foundation and development of tool implementation). Upon graduation, a student with this minor would be well positioned to teach qualitative methods, to advise graduate students on using qualitative methods, or to evaluate and design research using qualitative methods.

More information about the minor can be found here (<http://website.education.wisc.edu/qrm>).

REQUIREMENTS

The doctoral minor in Qualitative Methods and Methodology in Education comprises 12 credits. These credits are for coursework above and beyond foundation courses in the departments. Three courses are to be taken by all students interested in the doctoral minor.

Code	Title	Credits
CURRIC/COUN PSY/ ED POL/ED PSYCH/ ELPA/RP & SE 719	Introduction to Qualitative Research	3
CURRIC/COUN PSY/ ED POL/ED PSYCH/ ELPA/RP & SE 788	Qualitative Research Methods in Education: Field Methods I	3
CURRIC/COUN PSY/ ED POL/ED PSYCH/ ELPA/RP & SE 789	Qualitative Research Methods in Education: Field Methods II	3

These core courses may be taken any time during graduate coursework. The remaining course will come from elective qualitative research methods courses taken in the School of Education or in other related departments. Elective courses must be approved by the steering committee as having sufficient content in Qualitative Research Methods.

PEOPLE

Professors L. Bartlett (chair), B. Graue, E. Halverson, S. Schweber, L. Berland, R. Russ, T. Wright, N. Louie, M. McKinney de Royston, S. Lee, R. Winkle-Wagler

SCIENCE EDUCATION, DOCTORAL MINOR

REQUIREMENTS

Doctoral students may pursue an Option A minor in science education. The 12-credit minor in science education is composed of graduate-level courses (at the 500 level or above) that each devote a minimum of 50 percent of their content to science education topics/issues. Students are expected to achieve a B or better in all of their coursework for the minor.

Students enrolled in the minor choose their courses in consultation with the coordinator of the science education minor (currently Noah Weeth Feinstein) and an advisor from their home department. Courses for the minor must be selected from offerings in the Department of Curriculum and Instruction (<http://guide.wisc.edu/courses/curric>), and should include no more than one independent reading with a faculty member affiliated with the minor. With special permission from the coordinator of the minor, students may count one course on more general educational theory, research, policy, and practice toward the minor; this course may be chosen from relevant graduate-level course offerings across the school of education.

The minor must be approved in accordance with the student's home department procedures. Forms for Option A minors are available in students' home departments.

PEOPLE

Currently affiliated faculty: Noah Weeth Feinstein (Curriculum and Instruction; current contact for the minor), Leema Berland (Curriculum and Instruction), Rosemary Russ (Curriculum and Instruction), John Rudolph (Curriculum and Instruction), Mathew Berland (Curriculum and Instruction), Peter Wardrip (Curriculum and Instruction), Erika Bullock (Curriculum and Instruction), Maxine McKinney de Royston (Curriculum and Instruction)

DAIRY SCIENCE

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Dairy Science, Doctoral Minor (p. 413)
- Dairy Science, M.S. (p. 413)
- Dairy Science, Ph.D. (p. 417)

PEOPLE

Faculty: Professors Weigel (chair), Combs, Fricke, Jones, Ruegg, Shaver, Wattiaux, Wiltbank; Associate Professors Cabrera, Hernandez; Assistant Professors White, Arriola Apelo; Affiliate Professors Cook, Dopfer, Kirkpatrick, Oetzel, Ollivett, Reed, Reinemann, Suen

DAIRY SCIENCE, DOCTORAL MINOR

Any student enrolled in a UW–Madison doctoral program can pursue a doctoral minor in Dairy Science. The doctoral minor offers substantial and systematic training in the field of dairy science and can be tailored to a student's specific interests. A doctoral minor in Dairy Science is an excellent way to gain training and understanding in specific research areas and disciplines related to dairy science that can be applied to one's research field and to one's teaching.

ADMISSIONS

1. Doctoral students who wish to pursue an Option A external minor in Dairy Science should consult the graduate coordinator or chair of the Dairy Science Graduate Committee of the department.
2. A Dairy Science faculty member with primary departmental appointment should be assigned as the minor program advisor. **See #4.**
3. A **Minor program of study** should be developed with and approved by the minor program advisor and the student's major professor, early in the student's graduate work. The proposed program must be submitted and approved upon or before, the completion of 6 credits. **See Doctoral Minor Program of Study Form.**
4. When courses are complete, the **Minor Program of Study** form for the doctoral minor should be signed by the graduate student's advisor and the chair of the Dairy Science Graduate Committee. The form should be submitted to the Dairy Science graduate coordinator at the time of the student's preliminary exam. The graduate coordinator will

send notification to the Graduate School of completion of doctoral minor.

Department of Dairy Science Primary Faculty Eligible to be Doctoral Minor Advisor:

Sebastian I Arriola Apelo, Victor Cabrera, Dave Combs, Paul Fricke, Laura Hernandez, Bruce Jones, Randy Shaver, Michel Wattiaux, Kent Weigel, Heather White, Milo Wiltbank

REQUIREMENTS

The student must achieve a 3.00 GPA in courses used to satisfy the minor requirement. Directed study courses do not count toward the minor nor do audits or pass/fail courses.

Code	Title	Credits
Elective Course Option Selection Approved for a Dairy Science doctoral minor		
DY SCI/AN SCI 414	Ruminant Nutrition	2
DY SCI/AN SCI 434	Reproductive Physiology	3
DY SCI 534	Reproductive Management of Dairy Cattle	3
DY SCI 535	Dairy Farm Management Practicum	3
DY SCI/AN SCI 824	Ruminant Nutritional Physiology I	4
DY SCI/AN SCI 825	Ruminant Nutritional Physiology II	4
DY SCI 875	Special Topics ¹	1-4
DY SCI/AN SCI 931	Seminar in Animal Nutrition	1
DY SCI/AN SCI/ GENETICS 951	Seminar in Animal Breeding	1
DY SCI 900	Seminar (Departmental spring semester seminar and discipline-specific seminars of 1 credit each (up to 5 credits))	1

¹ Topic options:

- Advanced Topics in Reproductive Physiology—3 credits
- International Teaching in Science & Engineering—2 credits
- Lactation Physiology—3 credits

PEOPLE

Faculty: Professors Weigel (chair), Combs, Fricke, Jones, Ruegg, Shaver, Wattiaux, Wiltbank; Associate Professors Cabrera, Hernandez; Assistant Professors White, Arriola Apelo; Affiliate Professors Cook, Dopfer, Kirkpatrick, Oetzel, Ollivett, Reed, Reinemann, Suen

DAIRY SCIENCE, M.S.

Two plans are available for graduate work leading to the master of science degree in dairy science. Students who plan to continue for the Ph.D. degree, or who expect to enter fields of work involving research, should take the M.S. degree in research. Students who wish to obtain more specialized training, but are not planning for a research career, may pursue a degree strictly through course work.

The Department of Dairy Science offers one of the most comprehensive dairy science graduate programs in the country. Faculty interests

and research funding in dairy science span diverse areas of focus. Fundamental training in basic science fields related to these phases of dairy science is required. Minimum admissions requirements of the Graduate School must be met. Specific degree requirements are available from the department.

There are six program areas for prospective applicants to review and choose from—see website (<https://dysci.wisc.edu/prospective-students/graduate>).

Students are offered a challenging research and educational opportunity in well-equipped laboratories with modern instrumentation. Students in dairy cattle nutrition may work in collaboration with laboratories of the U.S. Dairy Forage Research Center as well as those of the dairy science department. Dairy cattle at four locations are maintained by the department for both intensive and extensive experimental work.

Research is directed toward gaining greater understanding of the biology of dairy species with emphasis on dairy cattle, and improving usefulness of these species to society by modifying milk composition, improving animal health, assessing environmental impact, and enhancing economic efficiency. Current research emphases include developing and using molecular markers and genome maps to improve accuracy of selection and speed the rate of genetic improvement; developing and applying statistical methods for estimating genetic merit of individual animals and genetic parameters of populations from performance records; studying digestive and metabolic processes in lactating ruminants to improve production efficiency and health; enhancing utilization of forage nutrients by high-producing cows through modifications of the forage plants, harvesting and storage methods, and supplemental ration ingredients; development of reproduction management programs that optimize facility and profitability of dairy farms; understanding regulation of ovarian function and the regulation of fertility in lactating dairy cows; developing and evaluating milking, feeding, record-keeping, and decision and organizational systems that contribute to profitable dairy enterprises in a changing dairy economy; management factors affecting animal health and well-being.

About one-half of the department graduate students are domestic students, with two-thirds of those students Wisconsin residents, one-third out-of-state students, and one-half of the graduate students are international students. This diversity brings a national and global perspective to research, instruction, extension, and cultural understanding.

ADMISSIONS

Undergraduate majors in biology, biochemistry, or genetics, as well as dairy or animal science, provide excellent background for graduate study in dairy science. Regardless of major, preparation should include biology (molecular, cellular, and population), physiology, chemistry (general and organic), mathematics (through calculus), and physics. Typically, students admitted to the program have a GPA of 3.2 or higher. Candidates with a lower GPA can be considered under special circumstances.

Documents Required By Our Department:

1. Personal statement/reasons for graduate Study: see website. (<https://grad.wisc.edu/prospective/prepare/statement>)
2. Three letters of recommendation. The process for letters of recommendation is explained on this website (<https://grad.wisc.edu/admissions/faq/#rec>). Letters should be from faculty who are familiar

with your academic abilities and goals. Letters from supervisors that provide a character reference are also acceptable. The letters of recommendation should be submitted with the online application.

3. Official transcripts or academic records from each institution attended. These can be scanned and included with the electronic application. Original official transcripts will be required by the Graduate School if a department recommends applicant for admission.

The Graduate School Checklist tells you what you must include in your electronic application—see website. (<https://grad.wisc.edu/admissions/process>)

International students should apply as early as possible. If you are admitted, extra time will be needed to process visa documents.

Faculty Review of Completed Applications:

Most applicants have contacted departmental faculty directly with respect to an interest in their area of research. This means that a faculty member may be aware of an applicant's name and background prior to reviewing a completed application for Graduate School.

If a faculty member is interested in a completed application, the applicant will be contacted by them personally. If a faculty member is interested in accepting an applicant, a recommendation for admission will be sent to the Graduate School. The Graduate School will make the final determination for admission.

Our graduate faculty have approximately two weeks prior to the start of the semester to recommend domestic students and approximately six weeks prior to the start of the semester to recommend international students.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Research assistantships are awarded to well-qualified students on a competitive basis. Around 70 percent of M.S. and Ph.D. candidates in dairy science are supported by research assistantships. Funding does not come from the department, but from the faculty member agreeing to advise the new student. Therefore, a student joins a lab directly instead of doing rotations. Funding is awarded on a competitive basis and may be renewed annually pending satisfactory progress. Terms of these appointments are defined in the letter of offer to the student.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements No other specific grade requirements.

Assessments and Examinations M.S.–course track: Complete coursework and review of literature (documentation of completion is required before M.S. defense) and final defense and examination.

M.S.–research track: Complete coursework and M.S. research (documentation of completion is required before M.S. defense) and final defense and examination.

Note: These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Language Requirements No language requirements.

REQUIRED COURSES

Code	Title	Credits
DY SCI 900	Seminar (Every graduate student in the department is required to take this course every spring.)	1

Biochemistry course

Statistics course

Dairy or Animal Science Courses

One course (at least 2 credits, grade of B or better) in each of the following:

Animal Genetics

Ruminant or Animal Nutrition

Animal Physiology

Dairy Cattle Management

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://dysci.wisc.edu/wp-content/uploads/sites/94/2013/10/DySci-Graduate-Handbook-2017-1.pdf>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

A minimum of 16 graduate credits must be taken while a graduate student at UW–Madison.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree may count toward the M.S. degree.

UW–Madison University Special

Courses taken post–B.S. as a University Special student do not automatically count toward a graduate degree. A maximum of 15 credits may be allowed for courses numbered 300 or above if difference in tuition is paid.

PROBATION

In compliance with Graduate School policy, listed below, and at discretion of M.S. committee.

If students were admitted on probation and they satisfy the conditions outlined at the time of admission, probationary status will be removed automatically. Once their studies have begun, students are expected to make satisfactory progress toward their degree. Students must be in good academic standing with the Graduate School, their program, and their advisor. The Graduate School regularly reviews the record of any student who received grades of BC, C, D, F, or I in graduate-level courses (300 or above), or grades of U in research and thesis. This review could result in academic probation with a hold on future enrollment, and the student may be suspended from graduate studies.

The Graduate School may also put students on probation for incompletes not cleared within one term. All incomplete grades must be resolved before a degree is granted.

ADVISOR / COMMITTEE

The Department of Dairy Science offers six different program areas for potential graduate students: <https://dysci.wisc.edu/prospective-students/graduate/>. The focus of research or coursework varies from student to student and is dependent on the agreement of the student's graduate committee. All M.S. students have guidelines to be completed prior to or during M. .study as detailed in the Master's Certification forms <https://dysci.wisc.edu/dairy-science-certification-forms/>. These areas include:

- Forming a mentor committee (by end of the first semester) for either M.S. plan:
 - M.S.–course track requirements
 - M.S.–research track requirements

Successful completion of the following items. These must be completed in a timely fashion or the student will not be allowed to continue registration. Please note that minimum requirements are provided, however successful completion of the M.S. degree also requires making a research contribution to the scientific literature.

- Meet with the M.S. committee. Approve plan for coursework and review of literature and determine immediate research plans (by end of second semester)
 - With the mentor committee, form a plan of coursework (by end of the second semester) including:
 - Biochemistry
 - Statistics (300 level or above)
 - Dairy or Animal Science Courses:
 - Genetics (300 level or above, at least 2 credits with grade of B or better)
 - Nutrition (300 level or above, at least 2 credits with grade of B or better)
 - Physiology (300 level or above, at least 2 credits with grade of B or better)

- Management (300 level or above, at least 2 credits with grade of B or better)

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Form an M.S. mentor committee by end of first semester.

Meet with M.S. committee to approve plan for coursework and review of literature by end of second semester.

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

The Department of Dairy Science has a rolling admission policy. Campus visits are recommended along with direct departmental faculty contacts. Funding may be available for a research assistant position from a faculty member if an applicant meets their research requirements. No applicant can be seriously considered until they have submitted an application to the UW–Madison Graduate School with the supporting documentation.

PROFESSIONAL DEVELOPMENT**GRADUATE SCHOOL RESOURCES**

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Understand and summarize ideas and concepts, into a coherent biological model, research problem(s), and research project that will go beyond the current boundaries of knowledge within Dairy Science.
2. Create research and scholarship that makes a substantive contribution to the field of Dairy Science.
3. Orally communicate complex ideas in a clear and understandable manner in a scientific, classroom, and/or industry setting.
4. Statistically analyze data, summarize the results in tables and/or graphs, and provide valid interpretation of the results.
5. Communicate in accurate written English and in the format of a scientific journal, complex ideas and research results.
6. Foster ethical and professional conduct and have knowledge in a broad range of areas that are important for their professional development.

PEOPLE

Faculty: Professors Weigel (chair), Combs, Fricke, Jones, Ruegg, Shaver, Wattiaux, Wiltbank; Associate Professors Cabrera, Hernandez; Assistant

Professors White, Arriola Apelo; Affiliate Professors Cook, Dopfer, Kirkpatrick, Oetzel, Ollivett, Reed, Reinemann, Suen

DAIRY SCIENCE, PH.D.

Training for the Ph.D. degree prepares the candidate for a career of university teaching, research, and extension; for research in industrial or government laboratories; or for technical service in industry. The department office maintains specific information concerning career placements.

The greatest share of Ph.D. training will be achieved through selection and pursuit of a research project in a phase of dairy science in which the student has a strong interest. Students exercise individual initiative in the planning and execution of research projects. Because of the long-term nature of large-animal research, every effort is made to start students on research problems early in their graduate careers.

A minor in dairy science is available to doctoral students majoring in other departments. The information and required forms can be found on this website (<https://dysci.wisc.edu/dairy-science-certification-forms>). Contact the department for specific requirements or questions.

The Department of Dairy Science offers one of the most comprehensive dairy science graduate programs in the country. Faculty interests and research funding in dairy science span diverse areas of focus. Fundamental training in basic science fields related to these phases of dairy science is required. Minimum admissions requirements of the Graduate School must be met. Specific degree requirements are available from the department.

There are six program areas for prospective applicants to review and choose from—see website (<https://dysci.wisc.edu/prospective-students/graduate>).

Students are offered a challenging research and educational opportunity in well-equipped laboratories with modern instrumentation. Students in dairy cattle nutrition may work in collaboration with laboratories of the U.S. Dairy Forage Research Center as well as those of the dairy science department. Dairy cattle at four locations are maintained by the department for both intensive and extensive experimental work.

Research is directed toward gaining greater understanding of the biology of dairy species with emphasis on dairy cattle, and improving usefulness of these species to society by modifying milk composition, improving animal health, assessing environmental impact, and enhancing economic efficiency. Current research emphases include developing and using molecular markers and genome maps to improve accuracy of selection and speed the rate of genetic improvement; developing and applying statistical methods for estimating genetic merit of individual animals and genetic parameters of populations from performance records; studying digestive and metabolic processes in lactating ruminants to improve production efficiency and health; enhancing utilization of forage nutrients by high-producing cows through modifications of the forage plants, harvesting and storage methods, and supplemental ration ingredients; development of reproduction management programs that optimize facility and profitability of dairy farms; understanding regulation of ovarian function and the regulation of fertility in lactating dairy cows; developing and evaluating milking, feeding, record-keeping, and decision and organizational systems that contribute to profitable dairy enterprises

in a changing dairy economy; management factors affecting animal health and well-being.

About one-half of the department graduate students are domestic students, with two-thirds of those students Wisconsin residents, one-third out-of-state students, and one-half of the graduate students are international students. This diversity brings a national and global perspective to research, instruction, extension, and cultural understanding.

ADMISSIONS

Master's degrees in biology, biochemistry, or genetics, as well as dairy or animal science, provide excellent background for doctoral study in dairy science. Regardless of major, preparation should include biology (molecular, cellular, and population), physiology, chemistry (general and organic), mathematics (through calculus), and physics. Typically, students admitted to the doctoral program have a GPA of 3.2 or higher. Candidates without a master's degree can be considered under special circumstances.

Documents Required By Our Department:

1. Personal statement/reasons for graduate study: see website. (<https://grad.wisc.edu/prospective/prepare/statement>)
2. Three letters of recommendation. The process for letter of recommendation is explained on this website. (<https://grad.wisc.edu/admissions/faq/#rec>) Letters should be from faculty who are familiar with your academic abilities and goals. Letters from supervisors that provide a character reference are also acceptable. The letters of recommendation should be submitted with the online application.
3. Official transcripts or academic records from each institution attended. These can be scanned and included with the electronic application. Original official transcripts will be required by the Graduate School if a department recommends applicant for admission.

The Graduate School Checklist tells you what you must include in your electronic application: see website. (<https://grad.wisc.edu/admissions/process>)

International students should apply as early as possible. If you are recommended for admission and admitted, extra time will be needed to process visa documents.

Faculty Review of Completed Applications:

Most applicants have contacted departmental faculty directly with respect to an interest in their area of research. This means that a faculty member may be aware of an applicant's name and background prior to reviewing a completed application for Graduate School. It is recommended that applicants contact the faculty member(s) with the area(s) of research that interests them and that they wish to pursue.

If a faculty member is interested in a completed application, the applicant will be contacted by them personally. If a faculty member is interested in accepting an applicant, a recommendation for admission will be sent to the Graduate School. The Graduate School will make the final determination for admission.

Our graduate faculty have approximately two weeks prior to the start of the semester to recommend domestic students and approximately

six weeks prior to the start of the semester to recommend international students.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Research assistantships are awarded to well-qualified students on a competitive basis. Around 70 percent of M.S. and Ph.D. candidates in dairy science are supported by research assistantships. Funding does not come from the department, but from the faculty member agreeing to advise the new student. Therefore, a student joins a lab directly instead of doing rotations. Funding is awarded on a competitive basis and may be renewed annually pending satisfactory progress. Terms of these appointments are defined in the letter of offer to the student.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement	51 credits
Minimum Residence Credit Requirement	32 credits
Minimum Graduate Coursework Requirement	Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.
Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	No other specific grade requirements.
Assessments and Examinations	Schedule preliminary examination and file request for preliminary examination (by end of fourth semester). Complete written preliminary examination; complete oral preliminary examination (by end of fifth semester). If passed, warrant should be signed and returned to the Graduate School. Student will be a dissertator. Complete research and thesis. Regular meetings with the committee are expected. Request for final examination (includes documentation that exam requirements have been met). Final defense and examination.
Language Requirements	No language requirements.
Doctoral Minor/Breadth Requirements	All doctoral students are required to complete a minor.

REQUIRED COURSES

Code	Title	Credits
DY SCI 900	Seminar (Every graduate student in the department is required to take this course every spring.)	1

Biochemistry course (must require Organic Chemistry as a prerequisite)

Statistics course

Dairy or Animal Science Courses

One course (at least 2 credits, grade of B or better) in each of the following:

Animal Genetics

Ruminant or Animal Nutrition

Animal Physiology

Dairy Cattle Management**Special Skills**

Complete a course in two of the following three areas:

Educational Principles (DY SCI 799 or other approved course)

Technical Writing course or Writing Practicum

Advanced course in Philosophy of Science, History of Science, or Ethics of Science

There are no other specific courses required. Depending on which of the six program areas of research is involved, the doctoral graduate student and their mentor committee decide on a plan of study to be completed during the research program. All selected courses must be agreed upon by the student's graduate committee members and approved by department certification committee. There are forms developed by the department certification committee that provide written guidelines and must be processed in a timely manner for Ph.D. students in the dairy science program, <https://dysci.wisc.edu/dairy-science-certification-forms/>. All submitted forms are reviewed by the certification committee chairperson.

POLICIES**GRADUATE SCHOOL POLICIES**

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

**MAJOR-SPECIFIC POLICIES
GRADUATE PROGRAM HANDBOOK**

The Graduate Program Handbook (<https://dysci.wisc.edu/wp-content/uploads/sites/94/2013/10/DySci-Graduate-Handbook-2017-1.pdf>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK**Graduate Work from Other Institutions**

The department may decide to accept coursework completed outside of the student's graduate career at UW-Madison when those courses are rigorous and meet the expectations of a graduate work for the degree. Coursework earned five or more years prior to admission to a master's degree or coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW-Madison Undergraduate

For well-prepared advanced students, the department may decide to accept up to 7 credits, numbered 300 or above, completed at UW-Madison toward fulfillment of minimum degree credit requirements. These credits would not be allowed to count toward the 50% graduate coursework minimum unless taken at the 700 level or above.

UW-Madison University Special

Courses taken post-B.S. as a University Special student do not automatically count toward a graduate degree. A maximum of 15 credits may be allowed for courses numbered

300 or above as fulfillment of the minimum graduate residence credits. UW-Madison coursework taken as a University Special Student would not be allowed to count toward the 50% graduate coursework minimum unless taken at the 700 level or above.

If Special student credits are applied toward a UW-Madison graduate degree, it will be required to pay the difference between the cost of the Special student credits and graduate credits.

PROBATION

In compliance with Graduate School policy, listed below, and at discretion of Ph.D. committee.

If students were admitted on probation and they satisfy the conditions outlined at the time of admission, probationary status will be removed automatically. Once their studies have begun, students are expected to make satisfactory progress toward their degree.

Students must be in good academic standing with the Graduate School, their program, and their advisor. The Graduate School regularly reviews the record of any student who received grades of BC, C, D, F, or I in graduate-level courses (300 or above), or grades of U in research and thesis. This review could result in academic probation with a hold on future enrollment, and the student may be suspended from graduate studies.

The Graduate School may also put students on probation for incompletes not cleared within one term. All incomplete grades must be resolved before a degree is granted.

ADVISOR / COMMITTEE

To complete the Ph.D. degree in the Department of Dairy Science, successful completion of the following items is required. These must be completed in a timely fashion or the student will not be allowed to continue registration. Please note that minimum requirements are provided, however successful completion of the Ph.D. requires achievement of the standing of demonstrated scientist, through your Ph.D. program and by making a significant research contribution to the scientific literature.

- Form a Ph.D. mentor and examination committee (by end of first semester).
- Meet with the Ph.D. committee. Develop and approve a plan of coursework consistent with approved research plans (by end of second semester).

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Form a Ph.D. mentor and examination committee by end of first semester.

Meet with the Ph.D. committee. Approve coursework and immediate research plans by end of second semester.

Schedule preliminary examination and file request for preliminary examination by end of fourth semester.

Complete written preliminary examination; complete oral preliminary examination by end of fifth semester.

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

The Department of Dairy Science has a rolling admission policy. Campus visits are recommended along with direct departmental faculty contacts. Funding may be available for a research assistant position from a faculty member if an applicant meets their research requirements. No applicant can be seriously considered until they have submitted an application to the UW-Madison Graduate School with the supporting documentation.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Understand and summarize ideas and concepts, into a coherent biological model, research problem(s), and research project that will go beyond the current boundaries of knowledge within Dairy Science.
2. Create research and scholarship that makes a substantive contribution to the field of Dairy Science.
3. Orally communicate complex ideas in a clear and understandable manner in a scientific, classroom, and/or industry setting.
4. Statistically analyze data, summarize the results in tables and/or graphs, and provide valid interpretation of the results.
5. Communicate in accurate written English and in the format of a scientific journal, complex ideas and research results.
6. Foster ethical and professional conduct and have knowledge in a broad range of areas that are important for their professional development.

PEOPLE

Faculty: Professors Weigel (chair), Combs, Fricke, Jones, Ruegg, Shaver, Wattiaux, Wiltbank; Associate Professors Cabrera, Hernandez; Assistant Professors White, Arriola Apelo; Affiliate Professors Cook, Dopfer, Kirkpatrick, Oetzel, Ollivett, Reed, Reinemann, Suen

DANCE

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Dance, MFA (p. 420)

DANCE, MFA

Note: Admissions to this degree are suspended.

Please contact the Department of Dance (uwdance@education.wisc.edu) with any questions.

ECONOMICS

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Economics, Doctoral Minor (p. 420)
- Economics, M.S. (p. 421)
- Economics, Ph.D. (p. 425)

PEOPLE

Faculty: Professors Blank, Corbae, Deneckere, Engel, Hansen, Hendricks, Kennan, Lentz, Porter, Rostek, Sandholm, Scholz, Seshadri, Smith, Sorensen, Taber, Walker, West, Williams, Wolfe, Wright; Associate Professors Fu, Penta, Quint, Shi, Weretka, Wiswall; Assistant Professors Aizawa, Atalay, Bilir, Freyberger, Gregory, Magnolfi, Mommaerts, Sølvesten, Sullivan; Visiting Assistant Professors Alder, Pauley; Affiliate Professors Chinn, Montgomery, Smeeding; Affiliate Associate Professors Schechter, Wallace; Affiliate Assistant Professors Chang, Chung, Sarada

ECONOMICS, DOCTORAL MINOR

The doctoral minor in economics provides an opportunity for students in other disciplines to obtain economics training to complement their primary doctoral program. Additional information is available on the minor page of the Department of Economics website (<https://econ.wisc.edu/doctoral/minor-requirements>).

ADMISSIONS

Graduate students should obtain the appropriate minor agreement forms from their home department. The minor field must be approved by the Department of Economics director of graduate studies. For help with planning a minor or other question, students should contact the department's graduate advisor.

REQUIREMENTS

The economics doctoral minor requires four courses (12 credits) taken as a graduate student. At least one course must be from the theory sequence (ECON 711 Economic Theory-Microeconomics Sequence, ECON 712 Economic Theory-Macroeconomics Sequence, ECON 713 Economic Theory: Microeconomics Sequence, ECON 714 Economic Theory; Macroeconomics Sequence) along with three appropriate doctoral-level courses at the 600–900 level. Courses that are part of the economics master's program cannot be used as part of the minor sequence. Not more than one course may be a reading course, workshop, or seminar. In addition, the course sequence must comply with the Graduate School policy for Option A Minors. (<https://grad.wisc.edu/acadpolicy/#minors>)

PEOPLE

Faculty: Professors Blank, Corbae, Deneckere, Engel, Hansen, Hendricks, Kennan, Lentz, Porter, Rostek, Sandholm, Scholz, Seshadri, Smith, Sorensen, Taber, Walker, West, Williams, Wolfe, Wright; Associate Professors Fu, Penta, Quint, Shi, Weretka, Wiswall; Assistant Professors Aizawa, Atalay, Bilir, Freyberger, Gregory, Magnolfi, Mommaerts, Sølvsten, Sullivan; Visiting Assistant Professors Alder, Pauley; Affiliate Professors Chinn, Montgomery, Smeeding; Affiliate Associate Professors Schechter, Wallace; Affiliate Assistant Professors Chang, Chung, Sarada

ECONOMICS, M.S.

The M.S. in Economics is offered as part of the Ph.D. (p. 425), although the M.S. Named Option in Graduate Foundations is a terminal master's degree that students apply to directly. See information about the Graduate Foundations program here (p. 423).

ADMISSIONS

The M.S. (no named option) is offered for work leading to the Ph.D. Students may not apply directly for the master's, and should instead see the admissions information for the Ph.D. (p. 425).

Students may also apply to the M.S. Named Option in Graduate Foundations (p. 423).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements A grade of B or better in at least three of the following six courses: ECON 709, ECON 710, ECON 711, ECON 712, ECON 713, ECON 714.

Assessments and Examinations A comprehensive examination may be required.

Language Requirements No language requirements.

REQUIRED COURSES

Code	Title	Credits
Core Economic Theory		
ECON 711	Economic Theory-Microeconomics Sequence	3
ECON 712	Economic Theory-Macroeconomics Sequence	3
ECON 713	Economic Theory: Microeconomics Sequence	3
ECON 714	Economic Theory; Macroeconomics Sequence	3
Mathematics Economics		
ECON 703	Mathematical Economics I	3-4
Statistics		
ECON 709	Economic Statistics and Econometrics I	3-4
ECON 710	Economic Statistics and Econometrics II	3-4

NAMED OPTIONS (SUB-MAJORS)

A named option is a formally documented sub-major within an academic major program. Named options appear on the transcript with degree conferral.

- Economics: Graduate Foundations, M.S. (p. 423)

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://econ.wisc.edu/doctoral/program-guidelines>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

Graduate coursework from other institutions will be evaluated on a case-by-case basis by the faculty graduate committee in the Department of Economics. With graduate committee approval, students are allowed to count no more than 7 credits of graduate coursework from other institutions. coursework

earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

UW–Madison undergraduate coursework will be evaluated on a case-by-case basis by the faculty graduate committee in the Department of Economics. With graduate committee approval, students are allowed to count no more than 7 credits of coursework numbered 700 or above taken as a UW–Madison undergraduate. coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison University Special

Coursework numbered 700 or above taken as a UW–Madison special student will be evaluated on a case-by-case basis by the faculty graduate committee in the Department of Economics. With graduate committee approval, students are allowed to count no more than 9 credits of coursework numbered 700 or above taken as a UW–Madison Special student. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

n/a

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Demonstrates understanding of core economic principles and theories in microeconomics, macroeconomics, and econometrics.
2. Uses econometric methods to communicate empirical questions in writing.
3. Conducts empirical research following ethical principles of the discipline for using sources.

PEOPLE

Faculty: Professors Blank, Corbae, Deneckere, Engel, Hansen, Hendricks, Kennan, Lentz, Porter, Rostek, Sandholm, Scholz, Seshadri, Smith, Sorensen, Taber, Walker, West, Williams, Wolfe, Wright; Associate Professors Fu, Penta, Quint, Shi, Weretka, Wiswall; Assistant Professors Aizawa, Atalay, Bilir, Freyberger, Gregory, Magnolfi, Mommaerts, Sølvsten, Sullivan; Visiting Assistant Professors Alder, Pauley; Affiliate Professors Chinn, Montgomery, Smeeding; Affiliate Associate Professors Schechter, Wallace; Affiliate Assistant Professors Chang, Chung, Sarada

ECONOMICS: GRADUATE FOUNDATIONS, M.S.

This is a named option within the Economics M.S. (p. 421) The Economics Master of Science–Graduate Foundations (MS–GF) program offers a terminal graduate degree that prepares students for high-level professional careers in government and industry or further study for the Ph.D. degree. The MS-GF program emphasizes econometric training more than similar programs at other universities. Today's job market and Ph.D. programs in economics require strong quantitative skills along with a command of microeconomic and macroeconomic theory. Wisconsin's tradition of supporting economic theory with quantitative methods is well suited to these requirements.

ADMISSIONS

The Department of Economics offers admission to the Master of Science–Graduate Foundations program. Master's program applications are due by March 1 for fall term admission and July 15 for spring term admission. Mathematics preparation should include multivariate calculus, elementary probability, and regression analysis. Applicants must submit three letters of recommendation and Graduate Record Exam (GRE) scores. For additional information on admissions requirements and process, please see the Department of Economics website (<https://econ.wisc.edu/masters/admission>).

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Students enrolled in the Economics Master of Science–Graduate Foundations Program are not allowed to accept research assistantships, teaching assistantships, project assistantships or other university appointments which grant waivers of tuition and/or academic fees. Accepting an assistantship or tuition waiver while enrolled in the program may lead to removal of the student from the M.S. in Economics student cohort. Corporate tuition support is not included in these categories, nor is the waiver of tuition due to veteran status.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely

online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement	30 credits
Minimum Residence Credit Requirement	16 credits
Minimum Graduate Coursework Requirement	Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (https://registrar.wisc.edu/course-guide/).
Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	None.
Assessments and Examinations	None.
Language Requirements	No language requirements.

REQUIRED COURSES

Code	Title	Credits
Core		
ECON 700	Mathematics for Economists	3
ECON 701	Microeconomics I	3
ECON 702	Macroeconomics I	3
ECON 704	Econometrics I	3
ECON 705	Econometrics II	3
ECON 706	Econometrics III	3
ECON 708	Microeconomics II	3
Electives		9
In addition to the core courses, master's students will also take three electives of their choosing.		
Total Credits		30

Most students will complete the curriculum as outlined on the Coursework webpage (<https://econ.wisc.edu/masters/program-guidelines/coursework>).

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the

degree program faculty. Policies set by the academic degree program can be found below.

NAMED OPTION-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://econ.wisc.edu/masters/program-guidelines>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

Graduate coursework from other institutions will be evaluated on a case-by-case basis by the faculty graduate committee in the Department of Economics. With graduate committee approval, students are allowed to count no more than 9 credits of graduate coursework from other institutions. Coursework earned five years or more prior to admission to the master's program is not allowed to satisfy requirements.

UW–Madison Undergraduate

With program approval, up to 7 credits numbered 300 or above from a UW–Madison undergraduate degree are allowed to count toward the M.S. GF degree. Coursework earned five or more years prior to admission to the master's program is not allowed to satisfy requirements.

UW–Madison University Special

No credits taken as a University Special Student are allowed to count towards the M.S. GF degree.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

12 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements;

that coursework may not count toward Graduate School credit requirements.

OTHER

Students enrolled in the Economics Master of Science–Graduate Foundations Program are not allowed to accept research assistantships, teaching assistantships, project assistantships or other University appointments which grant waivers of tuition and/or academic fees. Accepting an assistantship or tuition waiver while enrolled in the program may lead to removal of the student from the M.S. in Economics student cohort. Corporate tuition support is not included in these categories, nor is the waiver of tuition due to veteran status.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PROGRAM RESOURCES

Economics Graduate Foundations Master's students have special access to career advising and resources through the Economics Career Development Office (ECDO). The ECDO hosts career workshops, coordinates the Student Leadership Committee and invites employers to speak to students on campus. We encourage all economics master's students to schedule an appointment with one of our dedicated career advisors. During your appointment we can assist with:

- Deciding if a career outside of academia is right for you
- Resume and cover letter review
- Job and internship search strategies
- Interview preparation and mock interviews
- How to network and develop an effective LinkedIn

To schedule an appointment with one of our professional career advisors, please see website (<https://econ.wisc.edu/careers/advising>).

ECONOMICS, PH.D.

The doctoral program in economics offers a firm grounding in the theory and tools of economics as well as in a variety of fields of specialization. Facilities within the department include faculty and student offices, a library of core materials, and a computer center. The size of the department, the breadth of specialties represented among the faculty, the abundance of research workshops and research facilities, and the related programs of other university departments combine to provide an unusually supportive atmosphere for study and research. Students are encouraged to work together; study groups for course work and preliminary examinations are standard. The department currently has roughly 35 faculty members and approximately 150 graduate students. All doctoral students are assigned desk space. The department and students sponsor social events throughout the year. A graduate advisor is on staff to help students with problems and questions.

The first year of doctoral study concentrates on economic theory and statistics courses. In addition, the department holds seminars for first-year doctoral students that feature faculty presentations. The

presentations provide first-year students the opportunity to meet the faculty and learn about research in each field. The department offers seven fields of concentration: econometrics, industrial organization, international economics, labor economics, macroeconomics, microeconomic theory, and public economics.

ADMISSIONS

Applicants to the doctoral program receive full funding consideration if the application form is submitted and graduate school application fee paid by December 5 for fall term admission.

Doctoral admission requirements include a bachelor's degree, plus three semesters of calculus, a semester of linear algebra, and a semester of mathematical statistics, which must be completed before entering the program. Mathematics preparation should include multivariate calculus, elementary probability, and regression analysis. Applicants must submit three letters of recommendation and Graduate Record Exam (GRE) scores. Additional information is available on the Department of Economics website (<https://econ.wisc.edu/doctoral/admissions>).

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Applicants to the doctoral program receive full funding consideration if the application form is submitted and graduate school application fee paid by December 5. The department offers a number of financial support packages for the first year of study to incoming doctoral students with outstanding records. These packages guarantee support for five years of study and take the form of fellowship, teaching assistantship, research assistantship, or a combination of the three. All continuing support is based on the condition that a student is making good progress in the program.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 51 credits

Minimum Residence Credit Requirement 32 credits

Minimum Graduate Coursework Requirement Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements None.

Assessments and Examinations The micro and macro theory preliminary examinations must be taken in early summer following the first year of graduate study. Students who do not pass both exams on this first attempt retake the exam(s) they did not pass in late summer. A third attempt is granted only if the student has passed one exam after the second attempt. Students must earn a B average in the first year econometrics courses; retaking the applicable course (s) during the second year if the two-course GPA average is less than 3.0. To maintain satisfactory progress through the program, each student must have the field paper approved by the student's major field by December 15 of the third year of study and must complete a three-signature dissertation proposal by December 15 of the fourth year of study. Consult the department website (http://www.econ.wisc.edu/grad/program_guide.html) for additional information.

Language Requirements No language requirements.

Doctoral Minor/Breadth Requirements All doctoral students are required to complete a minor. For more information, see the economics department minor fields page (http://www.econ.wisc.edu/grad/minor_requirements.html).

REQUIRED COURSES

Code	Title	Credits
Core Economic Theory		
ECON 711	Economic Theory-Microeconomics Sequence	3
ECON 712	Economic Theory-Macroeconomics Sequence	3
ECON 713	Economic Theory: Microeconomics Sequence	3
ECON 714	Economic Theory; Macroeconomics Sequence	3
Mathematics Economics		
ECON 703	Mathematical Economics I	3-4
Statistics		
ECON 709	Economic Statistics and Econometrics I	3-4
ECON 710	Economic Statistics and Econometrics II	3-4

ECONOMETRICS¹

Econometrics is concerned with the methods for empirical analysis in economics. The program provides strong preparation and training for students interested in econometric methods and theory, and as well as for students whose primary interest lies in applied economics.

All doctoral students in economics, regardless of field, take one year of econometrics (ECON 709 Economic Statistics and Econometrics I and ECON 710 Economic Statistics and Econometrics II, which has an enrollment of about 40–50). In their second year of study, students who choose econometrics as their major field, or who simply want more advanced training, will take ECON 715 Econometric Methods, which covers the core theory of nonlinear estimation and inference. They will also take one or more of ECON 716 Econometric Methods, ECON 718 Topics in Applied Econometrics or ECON 719 Economic Statistics and Econometrics III, which cover selected topics on the frontiers of

theoretical and applied econometrics. These courses have enrollments of about 10–20 students.

The scope of econometrics at Wisconsin is suggested by a list of recent research projects by the econometrics faculty (often with the assistance of graduate students). These include the generalized method of moments, nonparametric likelihood, bootstrap methods, interactions-based models, macroeconometrics, nonlinear time series, and semiparametric estimation. In addition, studies conducted by other faculty members and students—in public economics, labor, industrial organization, macroeconomics, trade, and microeconomics—often draw on appropriately sophisticated econometric techniques.

The econometrics program can be augmented by course offerings in the statistics department.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

INDUSTRIAL ORGANIZATION ¹

The standard graduate preparation in industrial organization consists of two courses. One course presents an overview of the field, focusing on topics where theoretical models have successfully been taken to data. These topics include: static oligopoly models of price/quantity competition in homogeneous and differentiated good markets, models of product search and advertising, bilateral oligopoly models with contracting, models of contracting with asymmetric information, auctions, models of price discrimination, static and dynamic models of entry and exit. The second course focuses more on the details of how to estimate these models and, in particular, on the treatment of unobservables. The course also covers recent developments in the field. The main goal of this course is to transition students from being consumers of research to producers of research in industrial organization.

The empirical approach of industrial organization has shifted from discovering robust empirical regularities that hold across a broad cross section of industries to the detailed study of individual markets based on a theoretical model. This reflects the belief that market structure and firm behavior are sufficiently diverse across industries that they are best studied in the context of a well-defined product and geographical market. The methodology for studying markets at this level involve specifying an equilibrium model of firm behavior and applying this model to data by testing its predictions (reduced form) and/or by estimating its primitives (structural), which are typically consumer preferences and firm costs. Knowledge of model primitives is used to construct counterfactuals and conduct policy analysis. The main analytical tools are game theory, econometrics, and computational methods, and students would benefit from taking advanced courses in these subjects.

For students planning to write a dissertation in industrial organization, the field requirement is a paper to be completed during the summer of the second year. Upon completion of course work and the field requirement, students are expected to actively participate in the weekly industrial organization workshop and seminar. The workshop is dedicated to presentations by graduate students who are working on dissertations in industrial organization and by faculty members; the seminar is for invited speakers from other universities.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do

not appear in the Graduate School admissions application, and they will not appear on the transcript.

INTERNATIONAL ECONOMICS ¹

International economics is divided into the trade side and the macroeconomics side. The trade side considers the causes and consequences of international trade and of policies that alter trade patterns. A variety of both general equilibrium and partial equilibrium models featuring selected distortions to various competitive norms are used to explore these issues, and empirical evidence relating to the theories is also emphasized. Recent work analyzes theoretical and empirical investigations of trade and factor movements in the presence of firm-level heterogeneity, dynamics, uncertainty, endogenous government policy reaction, strategic interaction across governments and firms, and the design and purpose of international trade agreements. Economics 871 introduces students to the core of the real side of international economics.

The macroeconomics side of international economics puts special focus on the role of financial markets and monetary variables in open economies. It devotes attention to exchange rate determination and real and financial interaction among open economies. It treats traditional and current analytical approaches to understanding the macroeconomic consequences of monetary policy, fiscal policy, and policy coordination across borders; international capital mobility and default; economic growth; and, optimal portfolio choices. The role of credit frictions on international allocations and the causes and consequences of international financial crises and "sudden stops" are examined. ECON 872 Advanced International Economics is the macroeconomics analogue to the trade course ECON 871 Advanced International Economics.

ECON 899 Recent Advances in Economics covers advanced topics and treatments in international economics, and its specific content depends on the instructor teaching it.

The weekly international economics workshop, ECON 977 Workshop in International Economics/ECON 978 Workshop in International Economics, is an integral part of the program, in which both faculty and advanced graduate students actively participate.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

LABOR ECONOMICS ¹

Labor economics has a long and distinguished history of scholarly research and the application of this research to policy issues. Wisconsin has traditionally been an important center for this work. Students majoring in this field are expected to (eventually) understand relevant institutional features of labor markets, sources of data and econometric techniques needed to draw inferences from these data, and the models of rational economic behavior needed to organize coherent economic thinking about labor markets.

The core material deals with labor supply decisions made by rational households, labor demand decisions made by profit-maximizing firms, and the equilibrium wage differentials and employment patterns implied by these decisions when markets are competitive. Applications include the analysis of wage differentials, life-cycle age-earnings profiles, and returns to human capital investments. Further topics, emphasizing deviations from the competitive ideal, include incentive schemes,

discrimination, bargaining between workers and employers to divide monopoly rents, search and unemployment.

There are two required courses for the labor major, ECON 750 Labor Economics and ECON 751 Survey of Institutional Aspects of Labor Economics, usually taken in the second year of the program. Both theoretical and empirical research are emphasized in these courses, and students begin work on a research paper that will help lay the foundation for dissertation research. These courses are supplemented by an active workshop program featuring speakers from various universities and research centers (including Wisconsin).

Labor economics is complemented by several research institutes connected with the department. These institutes are often a source for research assistantship positions and support for dissertation research for labor majors.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

MACROECONOMICS AND MONETARY ECONOMICS ¹

Macroeconomics and monetary economics at Wisconsin emphasizes research on dynamic stochastic environments, as these seem central to understanding private sector and policy determinants of growth, business cycles, income distribution and other central topics. The graduate program in macroeconomics and monetary economics equips students to conduct research in this lively and rapidly changing field through a variety of advanced courses. The course selection varies from year to year, but typically it includes at least one course emphasizing macroeconomic theory and one course emphasizing empirical methods in macroeconomics. In recent years, the field has offered courses in:

1. theory and econometrics of environments comprised of interacting agents, with a focus on inequality dynamics;
2. monetary and financial theory, providing conceptual foundations for understanding financial market equilibria as well as the effects of alternative macroprudential and monetary policies
3. methods of modeling and coping with uncertainty, imperfect information, and private information, and their implications for the design of economic policy;
4. computational or econometric methods, covering tools that have wide applicability in macroeconomics and other areas of economics;
5. topics in macroeconomics, including consumption, time use and the aggregate relevance of micro shocks.

In addition to the courses offered in the department (in general up to five per year), the field recognizes courses taken outside the department (e.g., mathematics courses for those interested in theory, probability and statistics, and courses for students planning to work on empirical topics) as well as other fields.

Students are required to participate in the weekly macro workshop. Students are encouraged to present their own research in this seminar. In addition, depending on demand, the field organizes a brown bag seminar designed to encourage students to present research at an early stage, and individual faculty members regularly form reading groups to discuss tightly focused bodies of state of the art research to help facilitate the development of dissertation ideas.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do

not appear in the Graduate School admissions application, and they will not appear on the transcript.

MICROECONOMIC THEORY ¹

Microeconomic theory is a broad area that examines foundational issues in economic modeling and provides tools for applied economic research. The field includes partial and general equilibrium theory, game theory, the economics of incentives and information, and decision theory. Students often find it helpful to take courses in the microeconomics field to acquire the technical skills required to do rigorous applied work. Advanced courses in microeconomics offered by the economics department change as the frontiers of the subject and the interests of the faculty evolve.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

PUBLIC ECONOMICS ¹

Public economics is the study of the government's role in the economy, particularly through tax and expenditure policy. Wisconsin has a long and distinguished tradition of teaching and research in public economics. Scholars in public economics examine a wide range of issues. Research by members of the Wisconsin public economics faculty examines, for example, the behavioral effects of taxation social insurance, savings, altruism, anti-poverty policy, education, peer effects, income distribution, and issues in health economics.

There are two required courses for the public economics field, ECON 741 Theory of Public Finance and Fiscal Policy and an applied econometrics or field topics course. These courses examine theoretical and empirical methods in the field. Specific topics will vary across years, but the sequence will typically cover optimal taxation; the effects of taxation on various aspects of household behavior, such as labor supply, consumption and saving, charitable giving, and household portfolio behavior; social insurance—insurance provided by the government for longevity risk, work-related injuries, unemployed, and disability; fiscal federalism, local public finance, and the provision of public goods; and the rationale and effectiveness of government efforts to ameliorate poverty. The two-course sequence will also typically address topics of active research interest in the field, in broad areas of education and health policy, for example. Like other fields of concentration at Wisconsin, in their second year, students begin work on a research paper. The public economics field also holds an active seminar series featuring invited guests from various universities and research centers (including Wisconsin).

There are many resources across campus that may be of interest to students writing dissertations in public economics. The Institute for Research on Poverty (IRP) has a graduate student fellows program where students receive interdisciplinary training in poverty-related research. Public faculty and students also participate in the Interdisciplinary Training Program in the Education Sciences (ITP).

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://econ.wisc.edu/doctoral/program-guidelines>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

Graduate coursework from other institutions will be evaluated on a case-by-case basis by the faculty graduate committee in the Department of Economics. With graduate committee approval, students are allowed to count no more than 15 credits of graduate coursework from other institutions. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

UW–Madison undergraduate coursework will be evaluated on a case-by-case basis by the faculty graduate committee in the Department of Economics. With graduate committee approval, students are allowed to count no more than 7 credits of coursework numbered 700 or above taken as a UW–Madison undergraduate. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison University Special

Coursework numbered 700 or above taken as a UW–Madison Special student will be evaluated on a case-by-case basis by the faculty graduate committee in the Department of Economics. With graduate committee approval, students are allowed to count no more than 15 credits of coursework numbered 700 or above taken as a UW–Madison special student. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree,

the Graduate School expects them to meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Students must complete the final oral exam by May 15 of the seventh year of study.

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

n/a

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PROGRAM RESOURCES

PLACEMENT

The department has a well-organized placement service. Each year a faculty member functions as the placement officer. He or she is assisted by the placement assistant who coordinates the sending of resumes and letters of recommendation, makes available job vacancy information, and offers general guidance. Each job market candidate gives a regular faculty research seminar on his or her primary research paper; these seminars are typically widely attended by faculty and students and provide a rigorous "test run" for the job market paper. To prepare for the job market interviews mostly conducted at the winter meetings of the American Economic Association, all students are given mock "job market interviews" by faculty members. Students also receive extensive help from their primary advisor, who in addition to providing general counsel during the process of job search, typically is instrumental in contacting colleagues at other universities, or in bringing the student to the attention of the extensive network of former Wisconsin Ph.D.'s employed in universities, colleges, government, and the private sector.

Students also benefit from the fact that many government agencies, including the Board of Governors, the World Bank, the International Monetary Fund, and several Federal Reserve banks often actively recruit on campus. Finally, Wisconsin students typically self-organize additional

presentations of job market papers, providing one another with additional opportunities for practice.

Many graduates accept research positions in academia, while others gain employment with international organizations, government, or private consulting firms. Between 2004 and 2015, placements at U.S. universities have included positions as assistant professors at Yale University, Northwestern University, University of California at Berkeley, University of Michigan, University of Pennsylvania, University of California—San Diego, Washington University in St. Louis, University of Florida, University of California—Santa Cruz, Tufts University, the University of Washington, University of Iowa, and the University of Virginia. Placements at non-U.S. universities have included University College London, London School of Economics, McMaster University, University of British Columbia, National Taiwan University, and Tsinghua University. Students pursuing nonacademic employment have accepted positions at institutions including the Federal Reserve Board of Governors, the International Monetary Fund, the Congressional Budget Office, US Treasury Department, the Korea Development Institute, Bates White Consulting, Abt Associates, and Mathematica Policy Research Institute.

LEARNING OUTCOMES

1. Establishes a firm grounding in economic theory.
2. Exhibits expert depth of knowledge in one of the fields of specialization in the Economics department.
3. Demonstrates command of the tools needed to conduct and assess empirical research in economics.
4. Creates and presents research that makes a substantive contribution to the field.
5. Follows ethical principles of the discipline in using sources in research.

PEOPLE

Faculty: Professors Blank, Corbae, Deneckere, Engel, Hansen, Hendricks, Kennan, Lentz, Porter, Rostek, Sandholm, Scholz, Seshadri, Smith, Sorensen, Taber, Walker, West, Williams, Wolfe, Wright; Associate Professors Fu, Penta, Quint, Shi, Weretka, Wiswall; Assistant Professors Aizawa, Atalay, Bilir, Freyberger, Gregory, Magnolfi, Mommaerts, Sølvssten, Sullivan; Visiting Assistant Professors Alder, Pauley; Affiliate Professors Chinn, Montgomery, Smeeding; Affiliate Associate Professors Schechter, Wallace; Affiliate Assistant Professors Chang, Chung, Sarada

EDUCATIONAL LEADERSHIP AND POLICY ANALYSIS

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Educational Leadership and Policy Analysis, Doctoral Minor (p. 430)
- Educational Leadership and Policy Analysis, M.S. (p. 430)
- Educational Leadership and Policy Analysis, Ph.D. (p. 442)

- Educational Leadership and Policy Analysis, Specialist Certificate (p. 449)

PEOPLE

Faculty: Professor Julie Mead (chair); Professors Borman, Camburn, Capper, Conrad, Diamond, Halverson, Jackson, Kelley, Miller, Underwood; Associate Professors Hillman, Wang, Winkle-Wagner; Assistant Professors Goff; Clinical Professors Crim, Rainwater; Faculty Associate King

EDUCATIONAL LEADERSHIP AND POLICY ANALYSIS, DOCTORAL MINOR

A minor in Educational Leadership and Policy Analysis serves to provide a rational, unified set of courses which have a clearly articulated theme or focus which allows the student to develop knowledge in educational leadership and policy analysis.

ADMISSIONS

Contact Shari Smith, ssmith@education.wisc.edu, senior student services coordinator.

REQUIREMENTS

A Ph.D. (doctoral) minor requires a minimum of 12 credits of course work in Educational Leadership and Policy Analysis. Course selection is in consultation with an academic advisor in the Department of Educational Leadership and Policy Analysis.

PEOPLE

Faculty: Professor Julie Mead (chair); Professors Borman, Camburn, Capper, Conrad, Diamond, Halverson, Jackson, Kelley, Miller, Underwood; Associate Professors Hillman, Wang, Winkle-Wagner; Assistant Professors Goff; Clinical Professors Crim, Rainwater; Faculty Associate King

EDUCATIONAL LEADERSHIP AND POLICY ANALYSIS, M.S.

The M.S. degree in Educational Leadership and Policy analysis can be pursued through three tracks:

MASTER'S WITH FOCUS ON K12 LEADERSHIP WITH SOCIAL JUSTICE FOCUS ¹

The program is designed for current teachers and school or system leaders who are committed to becoming effective leaders of schools that eliminate inequities in student learning for all students in the schools and systems they serve. At the completion of the 14 month program candidates will receive a master of science in Educational Leadership and Policy Analysis and be eligible for endorsement for a Wisconsin

administrator license for the principalship. Students may also receive a director of instruction and director of student services license with 12 additional credits.

MASTER'S WITH FOCUS ON HIGHER, POSTSECONDARY AND CONTINUING EDUCATION ¹

The master's program in the HPCE strand offers a broad range of course selections with foundations in administration, organization, governance, teaching and learning, and policy and research. In addition to the general HPCE program, there are three specific concentrations of study within the HPCE program that students can select; student affairs administration; intercollegiate athletic administration; two-year colleges.

MASTER'S WITH FOCUS ON EDUCATIONAL POLICY ¹

The master's program in Educational Policy has an emphasis on conducting educational policy research and analysis with a goal of advancing the achievement of all students through effective policy design, development, implementation and evaluation of educational policies and programs. Students develop a knowledge base that includes a strong foundation in research methods (both quantitative and qualitative), and an ability to conduct sophisticated educational policy research and analysis grounded in understandings of the educational policy and governance system in the U.S. and the issues and challenges facing educational leaders embedded in school, university, community/technical college, or adult learning contexts.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

NAMED OPTIONS

The M.S. also has two named options (formal sub-majors documented on the transcript) that students can pursue:

- Cooperative Program with UW–Whitewater (p. 436)
- Global Higher Education (p. 438)
- Wisconsin Idea Principal Preparation (p. 440)

ADMISSIONS

Admission to the department is based, in part, on the following criteria: undergraduate GPA in the last 60 hours of undergraduate work, GPA on 9 or more graduate credits, three letters of recommendation from persons who are qualified to judge the applicant's academic and professional competence, resume, transcripts, and a "reasons for study" essay.

The GRE is not required for admission to the Master's degree program.

For information regarding admissions criteria, deadlines and the application process, see Admissions (<http://elpa.education.wisc.edu/elpa/admissions>) on the department website.

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from

the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	Yes	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum 30 credits
Credit
Requirement

Minimum 16 credits
Residence
Credit
Requirement

Minimum 24 credits out of 30 total credits must be completed in
Graduate graduate-level coursework.
Coursework
Requirement

Overall 3.00 GPA required.
Graduate GPA
Requirement

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Contact the program for information on required assessments and examinations.

Language Requirements Contact the program for information on any language requirements.

REQUIRED COURSES

K-12 Educational Leadership with Social Justice Focus Track ¹

Code	Title	Credits
1st Summer		
ELPA 847	Instructional Leadership and Teacher Capacity	3
or ELPA 703	Evaluating and Supporting Quality Classroom Teaching	
ELPA 735	Leadership for Equity and Diversity	3
ELPA 940	Special Topics Seminar in Educational Leadership	1-3
1st Fall		
ELPA 863	Race, Class and Educational Inequality	3
ELPA 845	School-Level Leadership	3
ELPA 700	Field Experience in Educational Leadership	3
1st Spring		
ELPA/INTER-HE 770	Community, Opportunity, and Justice	3
ELPA 840	Public School Law	3
ELPA 700	Field Experience in Educational Leadership	3
2nd Summer		
ELPA 703	Evaluating and Supporting Quality Classroom Teaching	3
or ELPA 847	Instructional Leadership and Teacher Capacity	
ELPA 940	Special Topics Seminar in Educational Leadership (Topic: Organizational Leadership and Change for Equity) ²	1-3
ELPA/RP & SE 835	Leadership for Inclusive Schooling ³	3
2nd Fall (optional)		
ELPA 875	Theory and Practice of Educational Planning ²	3
ELPA 842	Legal Foundations of Special Education and Pupil Services ³	3

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

² Additional course for Director of Instruction license.

³ Additional course for Director of Special Education and Pupil Services license.

Higher, Postsecondary and Continuing Education (HPCE) Track ¹

There are four sub-foci within this track: Individualized Higher Education Program, Intercollegiate Athletic Administration, Two-Year Colleges, and Student Affairs Administration.

• Individualized Higher Education Program

Code	Title	Credits
Foundations		
ELPA 701	Introduction to Higher and Post-Secondary Education	3
ELPA 725	Research Methods and Procedures in Educational Administration	3
Core Areas		
Students choose courses in consultation with their advisor in the following areas:		
<i>Administration, Organization & Governance</i>		3
<i>Teaching & Learning</i>		3
<i>Policy & Research</i>		3
<i>Equity & Diversity</i>		6
Additional Coursework		3-6
Option of completing course work outside of Educational Leadership & Policy Analysis OR completing additional ELPA course work. Consult with advisor prior to selecting courses. If completing a field experience, only 3 credits of additional course work is required.		
Field Experience - Optional		0-4
ELPA 700	Field Experience in Educational Leadership	
ELPA 999	Independent Reading	
Capstone Learning Project - Required		3
ELPA 777	Higher and Post-Secondary Education Capstone Seminar	
ELPA 999	Independent Reading	
Total Credits		27-34

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

• Intercollegiate Athletic Administration

Code	Title	Credits
Foundations		
ELPA 701	Introduction to Higher and Post-Secondary Education	3
ELPA 710	Introduction to Intercollegiate Athletics Administration	3
Core Areas		
<i>Administration, Organization & Governance</i>		3
ELPA 715	Governance and Administration of Colleges and Universities	
ELPA 831	Financing Postsecondary Education	
<i>Teaching & Learning</i>		3

ELPA 881	Ideas of the University: Images of Higher Learning for the 21st Century	
ELPA 880	Academic Programs in Colleges and Universities	
ELPA 883	Perspectives on College Student Identity and Development	
ELPA 940	Special Topics Seminar in Educational Leadership (Topic: Students in Higher Education)	
ELPA 888	Assessment in Higher Education	
ELPA 887	Diversity and Inequality in Higher Education	
Policy & Research		3
ELPA 725	Research Methods and Procedures in Educational Administration	
ELPA 824	Field Research Designs & Methodologies in Educational Administration	
ELPA 831	Financing Postsecondary Education	
ELPA 841	Legal Aspects of Higher Education	
ELPA 870	The Politics of Education	
ELPA 888	Assessment in Higher Education	
ELPA 940	Special Topics Seminar in Educational Leadership (Topic: Critical Issues in Contemporary Sport)	
Equity & Diversity		6
ELPA 882	Minority-Serving Institutions of Higher Education	
ELPA 887	Diversity and Inequality in Higher Education	
ELPA 940	Special Topics Seminar in Educational Leadership (Topic: Critical Issues in Contemporary Sport)	
ELPA 883	Perspectives on College Student Identity and Development	
Additional Coursework		3-6
Option of completing course work outside of Educational Leadership & Policy Analysis OR completing additional ELPA course work. Consult with advisor prior to selecting courses. If completing a field experience, only 3 credits of additional course work is required.		
Field Experience - Optional		0-4
ELPA 700	Field Experience in Educational Leadership	
ELPA 999	Independent Reading	
Capstone Learning Project - Required		2
ELPA 777	Higher and Post-Secondary Education Capstone Seminar	
ELPA 999	Independent Reading	
Total Credits		26-33

not appear in the Graduate School admissions application, and they will not appear on the transcript.

• **Two-Year Colleges**

Code	Title	Credits
Foundations		
ELPA 701	Introduction to Higher and Post-Secondary Education	3
ELPA 940	Special Topics Seminar in Educational Leadership (Topic: American Community Colleges)	1-3
Core Areas		
<i>Administration, Organization & Governance</i>		3
ELPA 715	Governance and Administration of Colleges and Universities	
ELPA/INTER-HE 730	Program Development in Continuing Education	
ELPA 736	Administration of Student Services in Higher Education	
ELPA 831	Financing Postsecondary Education	
<i>Teaching & Learning</i>		3
ELPA/INTER-HE 742	Facilitating Learning for Adults	
ELPA/CURRIC 746	The Adult Learner: Implications for Curriculum and Instruction	
ELPA 880	Academic Programs in Colleges and Universities	
ELPA 881	Ideas of the University: Images of Higher Learning for the 21st Century	
ELPA 940	Special Topics Seminar in Educational Leadership (Topic: College Student Development Theory)	
ELPA 940	Special Topics Seminar in Educational Leadership (Topic: Students in Higher Education)	
ELPA 888	Assessment in Higher Education	
ELPA 940	Special Topics Seminar in Educational Leadership (Topic: Leadership for Equity & Diversity)	
<i>Policy & Research</i>		3
ELPA 725	Research Methods and Procedures in Educational Administration	
ELPA 824	Field Research Designs & Methodologies in Educational Administration	
ELPA 831	Financing Postsecondary Education	
ELPA 841	Legal Aspects of Higher Education	
ELPA 870	The Politics of Education	
ELPA 888	Assessment in Higher Education	
ELPA 940	Special Topics Seminar in Educational Leadership (Topic: American Community College)	
<i>Equity & Diversity</i>		6

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do

ELPA 882	Minority-Serving Institutions of Higher Education	
ELPA 940	Special Topics Seminar in Educational Leadership (Topic: American Community College)	
ELPA 940	Special Topics Seminar in Educational Leadership (Topic: Leadership for Equity & Diversity)	
Additional Coursework		3-6
Option of completing course work outside of Educational Leadership & Policy Analysis OR completing additional ELPA course work. Consult with advisor prior to selecting courses. If completing a field experience, only 3 credits of additional course work is required.		
Field Experience - Optional		0-4
ELPA 700	Field Experience in Educational Leadership	
ELPA 999	Independent Reading	
Capstone Learning Project - Required		3
ELPA 777	Higher and Post-Secondary Education Capstone Seminar	
ELPA 999	Independent Reading	
Total Credits		25-34

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

• **Student Affairs Administration**

Code	Title	Credits
Foundations		
ELPA 701	Introduction to Higher and Post-Secondary Education	3
ELPA 883	Perspectives on College Student Identity and Development	3
Core Areas		
<i>Administration, Organization & Governance</i>		3
ELPA 710	Introduction to Intercollegiate Athletics Administration	
ELPA 715	Governance and Administration of Colleges and Universities	
ELPA 736	Administration of Student Services in Higher Education	
ELPA 831	Financing Postsecondary Education	
ELPA 940	Special Topics Seminar in Educational Leadership (Topic: American Community Colleges)	
<i>Teaching & Learning</i>		3
ELPA 881	Ideas of the University: Images of Higher Learning for the 21st Century	
ELPA 880	Academic Programs in Colleges and Universities	

ELPA 940	Special Topics Seminar in Educational Leadership (Topic: Students in Higher Education)	
ELPA 888	Assessment in Higher Education	
ELPA 887	Diversity and Inequality in Higher Education	
<i>Policy & Research</i>		3
ELPA 725	Research Methods and Procedures in Educational Administration	
ELPA 824	Field Research Designs & Methodologies in Educational Administration	
ELPA 831	Financing Postsecondary Education	
ELPA 841	Legal Aspects of Higher Education	
ELPA 870	The Politics of Education	
ELPA 888	Assessment in Higher Education	
<i>Equity & Diversity</i>		6
ELPA 882	Minority-Serving Institutions of Higher Education	
ELPA 940	Special Topics Seminar in Educational Leadership (Topic: American Community College)	
ELPA 887	Diversity and Inequality in Higher Education	

Additional Coursework 3-6
 Option of completing course work outside of Educational Leadership & Policy Analysis OR completing additional ELPA course work. Consult with advisor prior to selecting courses. If completing a field experience, only 3 credits of additional course work is required.

Field Experience – Optional		0-4
ELPA 700	Field Experience in Educational Leadership	
ELPA 999	Independent Reading	
Capstone Learning Project - Required		3
ELPA 777	Higher and Post-Secondary Education Capstone Seminar	
ELPA 999	Independent Reading	

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Educational Policy Track ¹

Code	Title	Credits
Core		
ELPA 940	Special Topics Seminar in Educational Leadership	1-3
ELPA 870	The Politics of Education	3
ELPA 940	Special Topics Seminar in Educational Leadership (Topic: Data Management For Research And Policy Analysis)	1-3
Depth		9
ELPA/ED POL/ PUB AFFR 830	School Finance and Resource Allocation	

ELPA 831	Financing Postsecondary Education
ELPA 840	Public School Law
ELPA 841	Legal Aspects of Higher Education
ELPA 848	Professional Development and Organizational Learning
ELPA 860	Organizational Theory and Behavior in Education
ELPA 863	Race, Class and Educational Inequality
ELPA 887	Diversity and Inequality in Higher Education
ELPA 940	Special Topics Seminar in Educational Leadership (Topic: Economics of Education)

Methods

ELPA/ED PSYCH 822	Introduction to Quantitative Inquiry in Education	3
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Select one of the following: 3

ELPA 940	Special Topics Seminar in Educational Leadership (Topic: Applied Quantitative Methods II)
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ELPA/ED PSYCH 827	Surveys and Other Quantitative Data Collection Strategies
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ELPA/COUN PSY/ CURRIC/ED POL/ ED PSYCH/ RP & SE 788	Qualitative Research Methods in Education: Field Methods I
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ELPA/COUN PSY/ CURRIC/ED POL/ ED PSYCH/ RP & SE 719	Introduction to Qualitative Research
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ELPA 940	Special Topics Seminar in Educational Leadership (Topic: Randomized Experiments In Education Research)
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Electives 6

Relevant substantive or methods courses from ELPA or other departments

Practicum

ELPA 940	Special Topics Seminar in Educational Leadership (Topic: Practicum In Education Policy (Network Fellows))	1-3
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Total Credits 27-33

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

NAMED OPTIONS (SUB-MAJORS)

A named option is a formally documented sub-major within an academic major program. Named options appear on the transcript with degree conferral.

- Educational Leadership and Policy Analysis: Cooperative Program with UW–Whitewater, M.S. (p. 436)

- Educational Leadership and Policy Analysis: Global Higher Education, M.S. (p. 438)
- Educational Leadership and Policy Analysis: Wisconsin Idea Principal Preparation, M.S. (p. 440)

POLICIES**GRADUATE SCHOOL POLICIES**

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

**MAJOR-SPECIFIC POLICIES
GRADUATE PROGRAM HANDBOOK**

The Graduate Program Handbook (<http://elpa.education.wisc.edu/docs/WebDispenser/elpa-documents/elpa-student-handbookupatedaug2017.pdf?sfvrsn=0>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK**Graduate Work from Other Institutions**

If applicable to the program completing, and with program approval, students are allowed to count no more than 9 credits of graduate coursework in educational leadership from other institutions and 6 credits of graduate coursework in areas other than educational leadership from other institutions. Coursework earned five or more years prior to admission to the master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

If applicable to the program completing and with program approval, 6 credits of coursework numbered 500 or above from a UW–Madison undergraduate degree are allowed to count toward the degree. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison University Special

With program approval, students are allowed to count no more than 6 credits of coursework numbered 300 or above taken as a UW–Madison special student. If necessary to meet the Graduate School minimum graduate credit requirements for the degree, special student coursework may need to be converted to graduate credits. Once converted, students are assessed the difference in tuition between special and graduate tuition. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

12 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Funding is not offered along with offers for admission.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Articulates, critiques, or elaborates the theories, research methods, and approaches to scholarly inquiry or practice in educational settings.
2. Identifies sources and assembles evidence pertaining to questions or challenges in the field of study or field of practice.
3. Demonstrates understanding of the primary field of study or field of practice in a historical, social, or global context.
4. Demonstrates understanding of how to identify and address social inequalities in educational opportunities and outcomes through a field of study or field of practice.
5. Selects and/or utilizes the most appropriate methodologies and practices.
6. Evaluates or synthesizes information pertaining to questions or challenges in the field of study or field of practice.
7. Communicates clearly in ways appropriate to the field of study or field of practice.

8. Recognizes and applies principles of ethical and professional conduct.

PEOPLE

Faculty: Professor Julie Mead (chair); Professors Borman, Camburn, Capper, Conrad, Diamond, Halverson, Jackson, Kelley, Miller, Underwood; Associate Professors Hillman, Wang, Winkle-Wagner; Assistant Professors Goff; Clinical Professors Crim, Rainwater; Faculty Associate King

EDUCATIONAL LEADERSHIP AND POLICY ANALYSIS: COOPERATIVE PROGRAM WITH UW–WHITEWATER, M.S.

The University of Wisconsin Board of Regents approved the cooperative master of science degree program in educational leadership and policy analysis between the University of Wisconsin–Madison and the UW–Whitewater campus on February 5, 1982.

The cooperative program provides the opportunity for educators in the northeastern and central regions of Wisconsin to obtain a master of science degree with certification (principal, director of instruction, director of special education and pupil services) in Educational Leadership and Policy Analysis, from the University of Wisconsin–Madison. All required course work will be offered on the Whitewater campus.

Students must be admitted simultaneously to UW–Madison and UW–Whitewater. Program admission will be to the UW–Madison Department of Educational Leadership and Policy Analysis and to the UW–Whitewater Department of Curriculum and Instruction. Upon completion of the approved program, students will be awarded a master of science degree from UW–Madison.

ADMISSIONS

Admission to the department is based, in part, on the following criteria: undergraduate GPA in the last 60 hours of undergraduate work, GPA on 9 or more graduate credits, three letters of recommendation from persons who are qualified to judge the applicant's academic and professional competence, resume, transcripts, and a "reasons for study" essay.

The GRE is not required for admission to the Master's degree program.

For information regarding admissions criteria, deadlines and the application process, see Admissions (<http://el pa.education.wisc.edu/el pa/admissions>) on the department website.

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from

the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/Weekend	Online	Hybrid	Accelerated
Yes	Yes	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits (15 UW–Madison credits and 15 UW–Whitewater credits)

Minimum Residence Credit Requirement 15 credits at UW–Madison

Minimum Graduate Coursework Requirement A minimum of 15 credits out of 30 total credits must be graduate-level UW–Madison coursework. The remainder of the 30-credit requirement, 15 credits are UW–Whitewater coursework.

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Contact the program for information on required assessments and examinations.

Language Requirements Contact the program for information on any language requirements.

REQUIRED COURSES

Code	Title	Credits
UW-Whitewater Coursework (UW-Madison course equivalents below)		

ELPA 702	Introduction to Educational Leadership	3
ELPA/INTER-HE 770	Community, Opportunity, and Justice	3
ELPA 703	Evaluating and Supporting Quality Classroom Teaching	3
ELPA 845	School-Level Leadership	3
ELPA 700	Field Experience in Educational Leadership	3

UW-Madison Coursework

ELPA 735	Leadership for Equity and Diversity	3
ELPA/ED POL/PUB AFFR 830	School Finance and Resource Allocation	3
ELPA 847	Instructional Leadership and Teacher Capacity	3
ELPA 840	Public School Law	3

Optional Coursework for Additional Licensure, Director of Instruction

ELPA 860	Organizational Theory and Behavior in Education	3
ELPA 875	Theory and Practice of Educational Planning	3

75-hour field experience

Optional Coursework for Additional Licensure, Director of Special Education and Pupil Services

ELPA/RP & SE 835	Leadership for Inclusive Schooling	3
ELPA 842	Legal Foundations of Special Education and Pupil Services	3

75-hour field experience

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

NAMED OPTION-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<http://elpa.education.wisc.edu/docs/WebDispenser/elpa-documents/elpa-student-handbookupdatedaug2017.pdf?sfvrsn=0>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

None allowed.

UW–Madison Undergraduate

None allowed.

UW–Madison University Special

UW–Madison course work completed as a special student will need to be converted to graduate coursework if the 15 credit UW–Madison graduate credit requirement is not met. The student will be billed the difference between special and graduate tuition once the conversion has been approved.

Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements. More information here (<https://grad.wisc.edu/acadpolicy/?policy=universityspecialstudentcreditconversion>).

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

12 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Funding is not offered along with offers for admission.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PEOPLE

Faculty: Professor Julie Mead (chair); Professors Borman, Camburn, Capper, Conrad, Diamond, Halverson, Jackson, Kelley, Miller, Underwood; Associate Professors Hillman, Wang, Winkle-Wagner; Assistant Professors Goff; Clinical Professors Crim, Rainwater; Faculty Associate King

EDUCATIONAL LEADERSHIP AND POLICY ANALYSIS: GLOBAL HIGHER EDUCATION, M.S.

This is a named option in the Educational Leadership and Policy Analysis M.S. (p. 430)

The Global Higher Education Master's degree program offers the unique opportunity to study higher education administration and leadership from both an American and international perspective. It will prepare individuals with the capacities for critical thinking, problem-solving, and global competence that will enable them to engage in educational administration and innovations, as leaders or as researchers, as practitioners or as scholars in higher education in a global context.

The Global Higher Education master's degree program (GHE) is a cohort program. Through its cohort design, the Global Higher Education (GHE) program facilitates a dynamic, transnational, and "family-alike" collaborative learning community. Students follow the course sequence together, which provides a daily platform for exchanging ideas, sharing experiences, and sharing expertise regarding current and critical issues in international higher education. As they move through the program together, students will have opportunities to participate in academic and social events together, expand their professional networks, and build life-long friendships among cohort fellows. Students who have completed the program describe the experience as irreplaceable. They all agree that the cohort allowed them to share cultures and to quickly form tight connections with their fellows.

ADMISSIONS

Admission to the department is based, in part, on the following criteria: undergraduate GPA in the last 60 hours of undergraduate work, GPA on 9 or more graduate credits, three letters of recommendation from persons who are qualified to judge the applicant's academic and professional competence, resume, transcripts, and a "reasons for study" essay.

The GRE is not required for admission to the Master's degree program.

For information regarding admissions criteria, deadlines and the application process, see Admissions (<http://elpa.education.wisc.edu/elpa/admissions>) on the department website.

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	Yes	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum 30 credits
Credit
Requirement

Minimum 16 credits
Residence
Credit
Requirement

Minimum 24 credits out of 30 total credits must be completed in
Graduate graduate-level coursework.
Coursework
Requirement

Overall 3.00 GPA required.
Graduate GPA
Requirement

Other Grade The Graduate School requires an average grade of B
Requirements or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and
Examinations Contact the program for information on required assessments and examinations.

Language Contact the program for information on any language
Requirements requirements.

REQUIRED COURSES

The Global Higher Education program is a 30-credit master's program in the department of Educational Leadership and Policy Analysis (ELPA).

Sample Course Sequence (based on program plans for 2017 cohort)

The following course sequence is for students who plan to complete the GHE program in **three semesters**. Students can choose to graduate in summer or in fall of their second year in the program.

Code	Title	Credits
Term 1		
ELPA 886	Internationalization of Higher Education	3
ELPA 701	Introduction to Higher and Post-Secondary Education	3
ELPA 725	Research Methods and Procedures in Educational Administration	3
Term 2		
ELPA 940	Special Topics Seminar in Educational Leadership (Topic: Education Abroad Programs and International Student Services)	1-3
ELPA 888	Assessment in Higher Education	3
ELPA 881	Ideas of the University: Images of Higher Learning for the 21st Century	3
ELPA 883	Perspectives on College Student Identity and Development	3
Term 3 - Option 1		
ELPA 736	Administration of Student Services in Higher Education	3
ELPA 824	Field Research Designs & Methodologies in Educational Administration	3
ELPA 882	Minority-Serving Institutions of Higher Education	3
Term 3 - Option 2		
ELPA 736	Administration of Student Services in Higher Education	3

ELPA 940	Special Topics Seminar in Educational Leadership (Topic: The American Community College)	1-3
ELPA 880	Academic Programs in Colleges and Universities	3

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

NAMED OPTION-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<http://elpa.education.wisc.edu/docs/WebDispenser/elpa-documents/elpa-student-handbookupdatedaug2017.pdf?sfvrsn=0>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

Requires program director approval.

UW–Madison Undergraduate

None allowed.

UW–Madison University Special

UW–Madison coursework completed as a special student will need to be converted to graduate coursework if the 15 credit UW–Madison graduate credit requirement is not met. The student will be billed the difference between special and graduate tuition once the conversion has been approved.

Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements. More information here (<https://grad.wisc.edu/acadpolicy/?policy=universityspecialstudentcreditconversion>).

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

The GHE program director advises all students in the GHE program.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Funding is not offered along with offers for admission.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PEOPLE

Faculty: Professor Julie Mead (chair); Professors Borman, Camburn, Capper, Conrad, Diamond, Halverson, Jackson, Kelley, Miller, Underwood; Associate Professors Hillman, Wang, Winkle-Wagner; Assistant Professors Goff; Clinical Professors Crim, Rainwater; Faculty Associate King

EDUCATIONAL LEADERSHIP AND POLICY ANALYSIS: WISCONSIN IDEA PRINCIPAL PREPARATION, M.S.

This is a named option in the Educational Leadership and Policy Analysis M.S. (p. 430)

This named option is a specialized program of study within our Master's degree program. It provides all coursework necessary to meet the requirements of for licensure as a school principal in the state of Wisconsin (licensure also requires a Master's degree). It replicates the campus program resulting in the same degree and eligibility for licensure. The UW-Whitewater Cooperative Program, an existing departmental named option, similarly provides training for school administrators. A second departmental named option resulting in a Master's degree, the Global Higher Education Program, serves a different population of students who are training for work in post-secondary education.

"The mission of the department is to create, evaluate, exchange, and apply knowledge about leadership, learning, and organizational performance to prepare scholars and scholar practitioners who cultivate equity and educational opportunity in a diverse and changing world." <http://elpa.education.wisc.edu/> The purpose of the Wisconsin Idea Principal Preparation Program directly relates to this mission as the program is designed to train school leaders in a program with an explicit emphasis on equity and opportunity for all children in elementary and secondary schools

ADMISSIONS

Admission to the department is based, in part, on the following criteria: undergraduate GPA in the last 60 hours of undergraduate work, GPA on 9 or more graduate credits, three letters of recommendation from persons who are qualified to judge the applicant's academic and professional competence, resume, transcripts, and a "reasons for study" essay.

The GRE is not required for admission to the Master's degree program.

For information regarding admissions criteria, deadlines and the application process, see Admissions (<http://elpa.education.wisc.edu/elpa/admissions>) on the department website.

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Students in the Wisconsin Idea Principal Preparation Program are not permitted to accept tuition-waiving assistantships or seek double or dual degrees.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODES OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	Yes	Yes	Yes	Yes

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely

online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement	30 credits
Minimum Residence Credit Requirement	16 credits
Minimum Graduate Coursework Requirement	24 credits out of 30 total credits must be completed in graduate-level coursework.
Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.
Assessments and Examinations	No formal examination required. Students are required to submit a portfolio of work products and reflections that are then assessed via an established rubric. Students whose work does not meet the standards set are provided feedback and support to bring the work up to standard.
Language Requirements	No language requirements.

REQUIRED COURSES

Code	Title	Credits
First Summer ¹		9
ELPA 847	Instructional Leadership and Teacher Capacity	
ELPA 735	Leadership for Equity and Diversity	
ELPA 832	Resource Allocation for Equity and Social Justice	
First Fall		9
ELPA 863	Race, Class and Educational Inequality ²	
ELPA 845	School-Level Leadership ²	
ELPA 700	Field Experience in Educational Leadership	
First Spring ³		9
ELPA/INTER-HE 770	Community, Opportunity, and Justice ²	
ELPA 840	Public School Law ²	
ELPA 700	Field Experience in Educational Leadership	
Second Summer ¹		3

ELPA 703	Evaluating and Supporting Quality Classroom Teaching
Total Credits	30
1	Face-to-face intensive (activities on UW-Madison campus with online work to follow).
2	Taught in the Green Bay Area School District.
3	Friday/Saturday - 5 weekends of face-to-face instruction with online activities between scheduled weekends.

POLICIES

NAMED OPTION-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<http://elpa.education.wisc.edu/docs/WebDispenser/elpa-documents/elpa-student-handbookupdatedaug2017.pdf?sfvrsn=0>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 9 credits of graduate coursework in educational leadership from other institutions and 6 credits of graduate coursework in areas other than educational leadership from other institutions. Coursework earned five or more years prior to admission to the master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

With program approval, 6 credits of coursework numbered 500 or above from a UW–Madison undergraduate degree are allowed to count toward the degree. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison University Special

With program approval, students are allowed to count no more than 9 credits of coursework numbered 300 or above taken as a UW–Madison Special student. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be

suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member in the department.

CREDITS PER TERM ALLOWED

12 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Students in the Wisconsin Idea Principal Preparation Program are not permitted to accept tuition-waiving assistantships or seek double or dual degrees.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PEOPLE

Faculty: Professor Julie Mead (chair); Professors Borman, Camburn, Capper, Conrad, Diamond, Halverson, Jackson, Kelley, Miller, Underwood; Associate Professors Hillman, Wang, Winkle-Wagner; Assistant Professors Goff; Clinical Professors Crim, Rainwater; Faculty Associate King

EDUCATIONAL LEADERSHIP AND POLICY ANALYSIS, PH.D.

The mission of the department is to create, evaluate, exchange, and apply knowledge about leadership, learning, and organizational performance to prepare scholars and scholar practitioners who cultivate equity and educational opportunity in a diverse and changing world.

Many varied educational constituencies need to be able to analyze and to inform debate on educational issues, and to lead and develop learning communities that meet the diverse learning needs of students and society. We believe effective educational leadership in any institution embodies three core values: inquiry, equity and reflection.

Graduates and recipients of the department's instruction are expected to reflect the knowledge, skills, and personal qualities that will be successful in promoting, producing, and improving learning and increasing public trust in educational institutions.

In keeping with this mission, the department has three specialties or emphases:

Higher, Postsecondary, and Continuing Education (<http://elpa.education.wisc.edu/elpa/academics/educational-policy>), focused on the effective administration of postsecondary institutions, including

higher education leadership, student affairs administration, and athletic administration.

K-12 leadership (<http://elpa.education.wisc.edu/elpa/academics/k12-leadership>), emphasizing the effective administration of primary and secondary institutions.

Educational Policy (<http://elpa.education.wisc.edu/elpa/academics/educational-policy>), stressing effective formation and analysis of policies governing the administration of all educational institutions.

Students in each specialty will focus their course work within the emphasis, although students are encouraged to learn about other areas as well.

ADMISSIONS

Admission to the department is based, in part, on the following criteria: undergraduate GPA in the last 60 hours of undergraduate work, GPA on 9 or more graduate credits, Graduate Record Exam (GRE) scores (required only for Ph.D.), three letters of recommendation from persons who are qualified to judge the applicant's academic and professional competence, resume, transcripts, and a "reasons for study" essay.

For information regarding admissions criteria, deadlines and the application process, see Admissions (<http://elpa.education.wisc.edu/elpa/admissions>) on the department website.

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	Yes	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-

campus component that is often designed to accommodate working schedules.

Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum 75 credits

Credit Requirement

Minimum 32 credits

Residence Credit Requirement

Minimum 51 out of 75 credits must be completed in graduate-level Graduate Coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Requirement Course Guide.

Overall 3.00 GPA required.

Graduate GPA Requirement

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Doctoral students are required to take a comprehensive preliminary/oral examination after they have cleared their record of all Incomplete and Progress grades (other than research and thesis). Deposit of the doctoral dissertation in the Graduate School is required.

Language Requirements Contact the program for information on any language requirements.

Doctoral Minor/Breadth Requirements Doctoral students must complete a doctoral minor. Minor coursework is completed in areas that serve to enhance the major coursework.

REQUIRED COURSES

Ph.D. students begin with the same foundational course before pursuing one of three different strands, or tracks (K-12 Leadership; Higher, Postsecondary and Continuing Education; or Educational Policy). They pick courses from the following list in consultation with their advisor.

Code	Title	Credits
Introduction to the Field		
ELPA 810	Doctoral Inquiry in Educational Leadership and Policy Analysis	3
ELPA 701	Introduction to Higher and Post-Secondary Education	3

ELPA 702	Introduction to Educational Leadership	3	ELPA 715	Governance and Administration of Colleges and Universities	3
ELPA 940	Special Topics Seminar in Educational Leadership	1-3	ELPA 785	Staff Personnel Systems in Education	3
Core Knowledge					
<i>Organizations and Planning (select one course)</i>					
ELPA/INTER-HE 730	Program Development in Continuing Education	3	ELPA 845	School-Level Leadership	3
ELPA 860	Organizational Theory and Behavior in Education	3	ELPA 846	The School Superintendency	3
ELPA 875	Theory and Practice of Educational Planning	3	ELPA 847	Instructional Leadership and Teacher Capacity	3
<i>Program and Instructional Leadership and Management (select one course)</i>					
ELPA 715	Governance and Administration of Colleges and Universities	3	ELPA 848	Professional Development and Organizational Learning	3
ELPA 845	School-Level Leadership	3	ELPA 863	Race, Class and Educational Inequality	3
ELPA 847	Instructional Leadership and Teacher Capacity	3	ELPA 915	Seminar: College and University Administration	3
<i>Politics, Policy and Finance (select one course)</i>					
ELPA 831	Financing Postsecondary Education	3	ELPA 940	Special Topics Seminar in Educational Leadership	1-3
ELPA 840	Public School Law	3	<i>Politics, Policy and Finance</i>		
ELPA 841	Legal Aspects of Higher Education	3	Politics and Policy		
ELPA 870	The Politics of Education	3	ELPA/INTER-HE 770	Community, Opportunity, and Justice	3
ELPA/ED POL 872	Educational Policy Research Design and Implementation	3	ELPA 870	The Politics of Education	3
<i>Learning and Diversity</i>					
ELPA 735	Leadership for Equity and Diversity	3	ELPA/ED POL 872	Educational Policy Research Design and Implementation	3
ELPA 736	Administration of Student Services in Higher Education	3	ELPA 965	Seminar in the Politics of Education	3
ELPA/CURRIC 746	The Adult Learner: Implications for Curriculum and Instruction	3	ELPA 940	Special Topics Seminar in Educational Leadership	1-3
ELPA 848	Professional Development and Organizational Learning	3	ED POL 600	Problems in Educational Policy	1-3
ELPA 880	Academic Programs in Colleges and Universities	3	ED POL/ELPA/PUB AFFR 765	Issues in Educational Policy Analysis	3
ELPA 887	Diversity and Inequality in Higher Education	3	PUB AFFR 869	Workshop in Public Affairs	3
Program Depth					
<i>Organizations and Planning</i>					
Planning for Quality and Productivity Improvement					
ELPA/INTER-HE 826	Evaluation for Administrative Decision Making in Education	3	PUB AFFR/POLI SCI/ POLI SCI 871	Public Program Evaluation	3
ELPA 875	Theory and Practice of Educational Planning	3	PUB AFFR/POLI SCI/ URB R PL 874	Policy-Making Process	3
OTM 770	Sustainable Approaches to System Improvement	4	PUB AFFR 974	Topics in Public Affairs	3
<i>Organizational Analysis</i>					
ELPA 860	Organizational Theory and Behavior in Education	3	Finance		
ELPA 950	Seminar-Organizational Theory and Behavior in Education	3	ELPA 831	Financing Postsecondary Education	3
SOC 632	Sociology of Organizations	3-4	ELPA 960	Seminar in Educational Finance	3
<i>Program and Instructional Leadership and Management</i>					
Economic Theory-Microeconomics Sequence					
Economic Theory-Macroeconomics Sequence					
Theory of Public Finance and Fiscal Policy					
Theory of Public Finance and Fiscal Policy					
Microeconomic Policy Analysis					
Benefit-Cost Analysis					
Federal Budget and Tax Policy and Administration					
State and Local Government Finance					

Legal			Students may take any five courses inside or outside of the Department, to provide depth or breadth to program focus. Students are reminded that their programs must include at least 39 credits taken from Educational Leadership & Policy Analysis. Note that electives are separate from minor/supporting coursework.
ELPA 840	Public School Law	3	
ELPA 841	Legal Aspects of Higher Education	3	
ELPA 842	Legal Foundations of Special Education and Pupil Services	3	
Learning and Diversity			
K-12			
ELPA 703	Evaluating and Supporting Quality Classroom Teaching	3	
ELPA 735	Leadership for Equity and Diversity	3	
ELPA/RP & SE 835	Leadership for Inclusive Schooling	3	
ELPA 848	Professional Development and Organizational Learning	3	
ELPA 863	Race, Class and Educational Inequality	3	
ELPA 940	Special Topics Seminar in Educational Leadership	1-3	
CURRIC 662	Elementary School Curriculum	3	
CURRIC 704	Curriculum Planning	3	
ED PSYCH 795	Introduction to Learning Sciences I	3	
Higher Education			
ELPA 736	Administration of Student Services in Higher Education	3	
ELPA 880	Academic Programs in Colleges and Universities	3	
ELPA 881	Ideas of the University: Images of Higher Learning for the 21st Century	3	
ELPA 882	Minority-Serving Institutions of Higher Education	3	
ELPA 883	Perspectives on College Student Identity and Development	3	
ELPA 887	Diversity and Inequality in Higher Education	3	
ELPA 888	Assessment in Higher Education	3	
ELPA 915	Seminar: College and University Administration	3	
ELPA 940	Special Topics Seminar in Educational Leadership	1-3	
K-12 and Higher Education			
ELPA/CURRIC 746	The Adult Learner: Implications for Curriculum and Instruction	3	
ELPA/INTER-HE 742	Facilitating Learning for Adults	3	
ELPA 817	Reflective Practice in Higher, Postsecondary and Continuing Education	3	
ELPA 940	Special Topics Seminar in Educational Leadership	1-3	
ED PSYCH/ CURRIC 708	The Study of Teaching	3	
Electives			
Minor/Supporting Coursework			12
Research Methods and Design			
Statistical Methods			
ELPA/ED PSYCH 822	Introduction to Quantitative Inquiry in Education	3	
ELPA/ED PSYCH 827	Surveys and Other Quantitative Data Collection Strategies	3	
ELPA 940	Special Topics Seminar in Educational Leadership	1-3	
ED PSYCH 760	Statistical Methods Applied to Education I	3	
ED PSYCH 761	Statistical Methods Applied to Education II	3	
SOC/C&E SOC 360	Statistics for Sociologists I	4	
SOC/C&E SOC 361	Statistics for Sociologists II	3	
STAT 301	Introduction to Statistical Methods	3	
STAT 302	Accelerated Introduction to Statistical Methods	3	
Or equivalent			
Quantitative Methods			
ELPA 824	Field Research Designs & Methodologies in Educational Administration	3	
ELPA 940	Special Topics Seminar in Educational Leadership	1-3	
ED POL/C&E SOC/ SOC 755	Methods of Qualitative Research	3	
CURRIC/COUN PSY/ ED POL/ED PSYCH/ ELPA/RP & SE 719	Introduction to Qualitative Research	3	
CURRIC 718	Introduction to Narrative Inquiry	3	
ED PSYCH/ COUN PSY/CURRIC/ ED POL/ELPA/ RP & SE 788	Qualitative Research Methods in Education: Field Methods I	3	
ED PSYCH/ COUN PSY/CURRIC/ ED POL/ELPA/ RP & SE 789	Qualitative Research Methods in Education: Field Methods II	3	
CURRIC 975	General Seminar	2-3	
And other appropriate courses.			
Research Design			
ELPA 825	Advanced Research Methods in Educational Administration	3	
Research/Thesis			
Students are required to complete a minimum of nine credits of research/thesis and/or independent reading. While nine credits is the minimum required, there is no maximum.			
ELPA 990	Research or Thesis	1-12	

ELPA 999 Independent Reading 1-3
Or equivalent in other departments.

NAMED OPTIONS (SUB-MAJORS)

A named option is a formally documented sub-major within an academic major program. Named options appear on the transcript with degree conferral.

- Educational Leadership and Policy Analysis: Wisconsin Idea Executive Ph.D. Cohort, Ph.D. (p. 447)

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<http://elpa.education.wisc.edu/docs/WebDispenser/elpa-documents/elpa-student-handbookupatedaug2017.pdf?sfvrsn=0>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 36 credits of graduate coursework from other institutions. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

With program approval, students are allowed to count no more than 15 credits of coursework numbered 300 or above taken as a UW–Madison special student. If necessary to meet the Graduate School minimum graduate credit requirements for the degree, special student coursework may have to be converted to graduate credits. Once converted, students are assessed the difference in tuition between special and graduate tuition. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements. More information here (<https://grad.wisc.edu/acadpolicy/?policy=universityspecialstudentcreditconversion>).

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could

result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies. An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor.

To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

OTHER

Funding is not offered along with offers for admission.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Articulates research problems, potentials, and limits with respect to theory, knowledge, or practice within the field of study.
2. Formulates ideas, concepts, designs, and/or techniques beyond the current boundaries of knowledge within the field of study.
3. Creates research or scholarship that makes a substantive contribution.
4. Demonstrates breadth within their learning experiences.
5. Advances contributions to society in the field of study or field of practice.

6. Communicates complex ideas in a clear and understandable manner.

7. Fosters ethical and professional conduct.

PEOPLE

Faculty: Professor Julie Mead (chair); Professors Borman, Camburn, Capper, Conrad, Diamond, Halverson, Jackson, Kelley, Miller, Underwood; Associate Professors Hillman, Wang, Winkle-Wagner; Assistant Professors Goff; Clinical Professors Crim, Rainwater; Faculty Associate King

EDUCATIONAL LEADERSHIP AND POLICY ANALYSIS: WISCONSIN IDEA EXECUTIVE PH.D. COHORT, PH.D.

This is a named option in the Educational Leadership and Policy Analysis Ph.D. (p. 442)

The Department of Educational Leadership & Policy Analysis (ELPA) offers its Ph.D. in Educational Leadership through a Cohort Program that focuses explicitly on K-12 leadership for dramatically improving student performance and closing achievement gaps.

The theme of District and School Leadership for Equity and Excellence is infused through most courses, and supported by theoretical and empirical, as well as practical, understandings. The program provides a coordinated plan that allows students to defend their dissertation within three to four years. The dissertation focuses on school, district, or community efforts to improve performance for all students. Cohort students receive training in qualitative and quantitative inquiry and analysis, and are expected to develop a study design for the dissertation that is appropriate to addressing their research questions.

ADMISSIONS

Admission to the department is based, in part, on the following criteria: undergraduate GPA in the last 60 hours of undergraduate work, GPA on 9 or more graduate credits, Graduate Record Exam (GRE) scores (required only for Ph.D.), three letters of recommendation from persons who are qualified to judge the applicant's academic and professional competence, resume, transcripts, and a "reasons for study" essay.

For information regarding admissions criteria, deadlines and the application process, see Admissions (<http://elpa.education.wisc.edu/elpa/admissions>) on the department website.

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	Yes	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 75 credits

Minimum Residence Credit Requirement 32 credits

Minimum Graduate Coursework Requirement 51 credits out of 75 total credits must be completed in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Doctoral students are required to take a comprehensive preliminary/oral examination after they have cleared their record of all Incomplete and Progress grades (other than research and thesis). Deposit of the doctoral dissertation in the Graduate School is required.

Language Requirements Contact the program for information on any language requirements.

Doctoral Minor/Breadth Requirements All doctoral students are required to complete a minor.

REQUIRED COURSES

Final course sequence and instructors to be determined by ELPA chair and Cohort coordinator. Seven terms of coursework totaling 53 credits, plus at least 4 credits of ELPA 990 are required. Ultimately students must take 75 total credits toward the Ph.D., including 6 credits for the minor completed before admission or outside the cohort program. The most recent course sequence follows:

Code	Title	Credits
Term 1		
ELPA 810	Doctoral Inquiry in Educational Leadership and Policy Analysis	3
ELPA 940	Special Topics Seminar in Educational Leadership (Topic: Critical Epistemologies & Organizational Theory in Education)	1-3
ELPA 990	Research or Thesis	1
Term 2		
ELPA 870	The Politics of Education	3
ELPA/ED PSYCH 822	Introduction to Quantitative Inquiry in Education	3
ELPA 990	Research or Thesis	1
Term 3		
ELPA 910	Seminar in Educational Law	3
ELPA 824	Field Research Designs & Methodologies in Educational Administration	3
ELPA 940	Special Topics Seminar in Educational Leadership	1-3
Term 4		
ELPA/ED PSYCH 827	Surveys and Other Quantitative Data Collection Strategies	3
ELPA 875	Theory and Practice of Educational Planning	3
ELPA 990	Research or Thesis	1
Term 5		
ELPA 940	Special Topics Seminar in Educational Leadership (Topics: Advanced Quantitative Methods or Advanced Qualitative Methods)	1-3
ELPA 940	Special Topics Seminar in Educational Leadership (Topic: Urban Education Leadership)	1-3
ELPA 990	Research or Thesis	1
Term 6		

ELPA 960	Seminar in Educational Finance	3
ELPA/RP & SE 835	Leadership for Inclusive Schooling	3
ED POL/HISTORY 907	Seminar-History of Education (Topics: Cities, Schools and the Urban Crisis)	1-3

Term 7

ELPA 940	Special Topics Seminar in Educational Leadership (Topic: Seminar in Authentic Pedagogy & Achievement)	1-3
ELPA 846	The School Superintendency	3
ELPA 990	Research or Thesis	1

Term 8

ELPA 990	Research or Thesis	2-4
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POLICIES

GRADUATE SCHOOL POLICIES

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NAMED OPTION-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<http://elpa.education.wisc.edu/docs/WebDispenser/elpa-documents/elpa-student-handbookupatedaug2017.pdf?sfvrsn=0>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 36 credits of graduate coursework from other institutions. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

With program approval, students are allowed to count no more than 15 credits of coursework numbered 300 or above taken as a UW–Madison special student, however, if the Graduate School minimum graduate credit requirement for the degree is not met, special student coursework may need to be converted to graduate course work. Once converted, students are then assessed the difference between special and graduate tuition. The conversion is requested in the last semester of course work. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements. More information here (<https://grad.wisc.edu/acadpolicy/?policy=universityspecialstudentcreditconversion>).

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies. An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor.

To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

OTHER

Funding is not offered along with offers for admission.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PEOPLE

Faculty: Professor Julie Mead (chair); Professors Borman, Camburn, Capper, Conrad, Diamond, Halverson, Jackson, Kelley, Miller, Underwood; Associate Professors Hillman, Wang, Winkle-Wagner; Assistant Professors Goff; Clinical Professors Crim, Rainwater; Faculty Associate King

EDUCATIONAL LEADERSHIP AND POLICY ANALYSIS, SPECIALIST CERTIFICATE

The Educational Specialist Certificate Program is a 60-credit program.

In most cases, someone entering the program already holds a master's degree in educational leadership. Coursework completed in a master's program in educational leadership is typically accepted toward the 60-credit requirement. At a minimum, 24 of the 60 credits must be completed at UW–Madison.

The Educational Specialist Certificate Program is most often completed by someone seeking a superintendent license. In Wisconsin, to be eligible for a superintendent license, you must either be in a Ph.D. program and have completed preliminary exams (dissertation proposal) or hold an educational specialist certificate.

ADMISSIONS

Admission to the department is based, in part, on the following criteria: undergraduate GPA in the last 60 hours of undergraduate work, GPA on 9 or more graduate credits, three letters of recommendation from persons who are qualified to judge the applicant's academic and professional competence, resume, transcripts, and a "reasons for study" essay.

The GRE is not required for admission to the Educational Specialist Certificate program.

The Educational Specialist Certificate is most often completed to earn superintendent certification/licensure.

For information regarding admissions criteria, deadlines and the application process, see Admissions (<http://elpa.education.wisc.edu/elpa/admissions>) on the department website.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 60 credits

Minimum Residence Credit Requirement 24 credits

Minimum Graduate Coursework Requirement Half of degree coursework (30 credits out of 60 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Contact the program for information on required assessments and examinations.

Language Requirements Contact the program for information on any language requirements.

REQUIRED COURSES

The following minimal requirements will satisfy the Educational Specialist Certificate in Educational Leadership & Policy Analysis.

Code	Title	Credits
Category I		3
ELPA 702	Introduction to Educational Leadership	
Category II		15
ELPA 785	Staff Personnel Systems in Education	
ELPA 846	The School Superintendency	
ELPA 860	Organizational Theory and Behavior in Education	
ELPA 870	The Politics of Education	
ELPA 875	Theory and Practice of Educational Planning	
Category III		30
At least ten (10) additional courses including at least thirty (30) graduate credits selected from any courses in Educational Leadership & Policy Analysis. (A maximum of three (3) graduate credits of ELPA 990 or ELPA 999 may be included in the 30 credits.) Students seeking Superintendent Certification need to incorporate required coursework into Category III. In addition to Category II course work, Superintendent Certification requires:		
ELPA 940	Special Topics Seminar in Educational Leadership (Topic: Resource Allocation for Equity and Social Justice)	
ELPA 840	Public School Law	
ELPA 890	Applied Research in Educational Administration	
Research Methods and Statistics Courses		6
At least two (2) courses including six (6) graduate credits of research courses distributed as follows:		
1. An introductory statistics course which includes descriptive statistics, central tendency, probability, inference, and variance.		
2. The research requirement for the Educational Specialist Certificate shall be satisfied by completing ELPA 824.		
Supporting Courses		6

At least two (2) courses including six (6) graduate credits of supporting coursework in teaching and learning (typically one course in curriculum and instruction and one additional course). Additional courses in teaching and learning are recommended.

Total Credits 60

Program Approval

The Education Specialist Certificate Program plan (as well as any subsequent amendments and changes) must be submitted and approved by the department as soon as is practicable following admission to the program.

Specialist Paper

The department has established the following criteria as guidelines for the specialist paper:

- The specialist paper should be derived from a current, practical problem which is researchable and limited in scope.
- The specialist paper should have the approval, cooperation, or collaboration of the governing board or administration of an educational institution when appropriate.
- The specialist paper should utilize applied, market, or policy research.
- The specialist paper should result in recommendations for action.
- The design and methodology for the specialist paper will be developed by the student and major professor and reviewed and approved by a three-person faculty committee which will also conduct the oral examination on the completed specialist paper.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<http://elpa.education.wisc.edu/elpa/academics/elpa-student-handbook>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 36 credits of graduate coursework from other institutions. Coursework earned five years or more prior to admission to the certificate is not allowed to satisfy requirements.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the certificate.

UW–Madison University Special

With program approval, students are allowed to count no more than 15 credits of coursework numbered 300 or above taken

as a UW–Madison special student. If necessary to meet the Graduate School minimum graduate credits requirements for the degree, special student coursework may need to be converted to graduate credits. Once converted, students are assessed the difference in tuition between special and graduate tuition. Coursework earned five years or more prior to admission to the certificate is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies. An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor.

To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

The Educational Specialist Certificate Program must be completed within seven (7) years from the date of admission to the program. Failure to complete the program in 7 years will result in the student being declared "inactive." Students declared "inactive" will be ineligible to take the final oral examination and receive the certificate until a new graduate program has been approved by the department and any new or different program or examination requirements then in effect have been met.

Students declared "inactive" for three (3) years may be dropped from the specialist program. Students who have been dropped must seek readmission to a specific degree program in the department and meet all existing admission, program, and examination requirements.

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Funding is not offered along with offers for admission.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PEOPLE

Faculty: Professor Julie Mead (chair); Professors Borman, Camburn, Capper, Conrad, Diamond, Halverson, Jackson, Kelley, Miller, Underwood; Associate Professors Hillman, Wang, Winkle-Wagner; Assistant Professors Goff; Clinical Professors Crim, Rainwater; Faculty Associate King

EDUCATIONAL POLICY STUDIES

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Educational Policy Studies, Doctoral Minor (p. 452)
- Educational Policy Studies, M.A. (p. 452)
- Educational Policy Studies, Ph.D. (p. 455)

PEOPLE

Faculty: Professors Bartlett, Kendall, Lee, Nelson (chair), Reese; Associate Professor Posey-Maddox; Assistant Professors Baldrige, Moeller, Turner, Stem

EDUCATIONAL POLICY STUDIES, DOCTORAL MINOR

REQUIREMENTS

For doctoral students in other departments, the Graduate School's requirement for a doctoral minor may be met by taking courses in educational policy studies. The following policies apply:

- The minor in educational policy studies shall consist of a minimum of 12 credits of work taken in the department.
- The specific courses should be approved by a minor advisor on the faculty of the Department of Educational Policy Studies not later than halfway through the minor, and at that point a Minor Agreement form signed by the advisor must be filed with the department.
- No more than 1 credit of Independent Reading or Research may be approved by the minor advisor as part of the minor. Permission to include more than 1 credit of independent work may be granted only by a vote of the department.
- The minor professor may approve by transfer up to 6 credits of coursework taken in educational policy studies or educational

foundations courses at other institutions; further transfer credits may be granted only by a vote of the department.

PEOPLE

Faculty: Professors Bartlett, Kendall, Lee, Nelson (chair), Reese; Associate Professor Posey-Maddox; Assistant Professors Baldrige, Moeller, Turner, Stem

EDUCATIONAL POLICY STUDIES, M.A.

The Department of Educational Policy Studies offers both master of arts (M.A. minimum 30 credits) and doctor of philosophy (Ph.D. minimum 51 credits) degrees. Students who enroll with only a bachelor's degree and intend to pursue the Ph.D. degree are required to take the M.A. on the way to the Ph.D. Applicants already holding a master's degree will be admitted either into the EPS master's program or into the Ph.D. program, depending upon the recommendation of the admissions committee. Students for both the M.A. and Ph.D. degrees are expected to develop both depth and breadth in their studies. For the Ph.D. there are minimum credit requirements of 18 credits for the concentration and of 12 credits within educational policy studies for breadth. All candidates for the Ph.D. must take a minimum of 30 credits in ED POL.

The Department of Educational Policy Studies (EPS) offers an interdisciplinary program leading to both the M.A. and Ph.D. degrees. The department is dedicated to the study of educational policy in its various manifestations and to the study of traditionally defined fields such as history of education, philosophy of education, comparative and international education, and sociology and anthropology of education. The number of budgeted faculty in the department is 11. Twelve to 18 students enter the department each year. The department includes faculty with interests in education beyond the United States and has formed ties with institutions and scholars in other countries. Several faculty from the departments of Curriculum and Instruction, Geography, Sociology, and Philosophy hold joint appointments in EPS, and several EPS faculty members hold appointments in other departments (History, Sociology, and Anthropology) and in programs in African studies, Development Studies, Global Health Institute, and women's studies.

Graduates of the department pursue a variety of academic, government, and private sector careers. They may be found across the United States in departments of educational policy studies and educational foundations, and other departments within schools of education; in organizations dedicated to educational research; in government and foundation work; and, in many other countries, in both higher education and ministries of education.

Beyond the department, other faculty at the University of Wisconsin–Madison study educational policy. They may be found, for example, in the Department of Educational Leadership and Policy Analysis, in the Robert M. La Follette School of Public Affairs, and in the Wisconsin Center For Education Research (WCER). Over the years, WCER projects have provided valuable research and employment opportunities to EPS students.

The department's graduate students are diverse. They come with a wide range of backgrounds in education and in the liberal arts. They vary in age, ethnicity, and social background, as well as prior practical

and educational experience. Students thus provide a resource for one another's scholarly development. Some ED POL courses are cross-listed in the College of Letters & Science; others are cross-listed with other departments in the School of Education. They consequently attract students who approach material with a broad range of intellectual perspectives and complementary knowledge.

Despite the variety structured into the program, the multidisciplinary backgrounds of faculty, and the diversity of students, the small size of the department often leads to closer ties between students and faculty than are possible in most larger departments. Doctoral students generally come to know several faculty well and have an opportunity to work closely together.

ADMISSIONS

Students may enter the department once a year, in fall. The deadline for applying is December 15, with applicants notified by letter before March 1. All applicants must apply online. Accepted students must respond in writing by April 15. The application is judged on the basis of previous academic record, other experience, 3 letters of recommendation, personal statement, vitae, writing sample, and the Graduate Record Exam (GRE) scores.

The admissions process in the department is the responsibility of the Admissions Committee. The committee will direct applications from qualified candidates to a faculty member in the department whose interests are similar to the applicant's. A temporary advisor must be willing to accept temporary responsibility for the student's graduate program. If no temporary advisor can be found, the candidate cannot be admitted to graduate study. If a faculty member agrees to serve as temporary advisor and the applicant is judged qualified for admission, the student is notified that the department will recommend admission to the Graduate School. Formal notification of admission comes from the Graduate School.

All applications must include a substantial sample of academic writing. For applicants already having an approved master's thesis, the thesis must be submitted. For students holding an M.A. that did not require a thesis, and for applicants currently pursuing an M.A., a paper from a graduate-level course or seminar may be submitted. For students holding a B.A., the writing sample might include sections from an undergraduate thesis or seminar paper, or a course paper. Applicants who wish to submit an alternative writing sample (for example, solely authored published article, solely authored research report or section of a research report) should check first with the chair of the Admissions Committee.

For students who are admitted, the Admissions Committee will, in consultation with an applicant's prospective advisor, recommend admission to either the EPS masters program or the EPS doctoral program. See department website for application requirements.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

The department has a small number of teaching assistantships. In addition, students in educational policy studies are frequently successful in competing for assistantships on professors' research grants through the Wisconsin Center for Education Research and other research organizations on campus, as well as for administrative assistantships and for teaching assistantships in related departments. University assistantships of at least one-third time routinely provide tuition remission (except for segregated fees), medical insurance, and a stipend.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement 18 of the 30 total credits must be completed in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Contact the program for information on required assessments and examinations.

Language Requirements Contact the program for information on any language requirements.

REQUIRED COURSES

All candidates for the master of arts degree must take the introductory colloquium, ED POL 701 Introduction to Educational Policy Studies, during their initial semester, or for those entering the program in the spring semester, the following fall. Students intending to complete only the M.A. degree plan a program defined by a minimum of 30 graduate-level credits. In addition to ED POL 701, M.A. students must take at least 18 further credits in the Department of Educational Policy Studies (exclusive of Independent Reading and Research and Thesis). Students may count no more than 3 credits of ED POL 990 Research or Thesis and no more than 3 credits of ED POL 999 Independent Reading in fulfilling the requirements for the minimum 30-credit master's degree. Entering master's students who are or may be interested in pursuing the doctoral degree in EPS should plan their master's program in accordance with the Ph.D. concentration requirements described here (p. 456).

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://eps.education.wisc.edu/docs/WebDispenser/eps-documents/spring-2018-handbook.pdf?sfvrsn=0>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 6 credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree or earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

With program approval, students are allowed to count no more than 6 credits of coursework numbered 340 or above taken as a UW–Madison Special student. Coursework earned five or more years prior to admission to a master's degree or earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Students are eligible to compete for UW–Madison fellowships. The department has a small number of teaching and project assistantships. In addition, students in Educational Policy Studies are frequently successful in competing for assistantships on professors' research grants through the Wisconsin Center for Education Research and other research organizations on campus, as well as for administrative assistantships and teaching assistantships in related departments.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Understand the social, cultural, and/or historical contexts surrounding formal and/or informal education in the U.S. and/or in a global context.
2. Interpret educational policy in a national and/or global context.
3. Understand educational inequality related to race, class, gender and/or other dimensions.
4. Recognize and apply principles of ethical research.

PEOPLE

Faculty: Professors Bartlett, Kendall, Lee, Nelson (chair), Reese; Associate Professor Posey-Maddox; Assistant Professors Baldrige, Moeller, Turner, Stern

EDUCATIONAL POLICY STUDIES, PH.D.

The Department of Educational Policy Studies offers both master of arts (M.A. minimum 30 credits) and doctor of philosophy (Ph.D. minimum 51 credits) degrees. Students who enroll with only a bachelor's degree and intend to pursue the Ph.D. degree are required to take the M.A. on the way to the Ph.D. Applicants already holding a master's degree will be admitted either into the EPS master's program or into the Ph.D. program, depending upon the recommendation of the admissions committee. Students for both the M.A. and Ph.D. degrees are expected to develop both depth and breadth in their studies. For the Ph.D. there are minimum credit requirements of 18 credits for the concentration and of 12 credits within educational policy studies for breadth. All candidates for the Ph.D. must take a minimum of 30 credits in ED POL.

The Department of Educational Policy Studies (EPS) offers an interdisciplinary program leading to both the M.A. and Ph.D. degrees. The department is dedicated to the study of educational policy in its various manifestations and to the study of traditionally defined fields such as history of education, philosophy of education, comparative and international education, and sociology and anthropology of education. The number of budgeted faculty in the department is 11. Twelve to 18

students enter the department each year. The department includes faculty with interests in education beyond the United States and has formed ties with institutions and scholars in other countries. Several faculty from the departments of Curriculum and Instruction, Geography, Sociology, and Philosophy hold joint appointments in EPS, and several EPS faculty members hold appointments in other departments (History, Sociology, and Anthropology) and in programs in African studies, Development Studies, Global Health Institute, and women's studies.

Graduates of the department pursue a variety of academic, government, and private sector careers. They may be found across the United States in departments of educational policy studies and educational foundations, and other departments within schools of education; in organizations dedicated to educational research; in government and foundation work; and, in many other countries, in both higher education and ministries of education.

Beyond the department, other faculty at the University of Wisconsin–Madison study educational policy. They may be found, for example, in the Department of Educational Leadership and Policy Analysis, in the Robert M. La Follette School of Public Affairs, and in the Wisconsin Center For Education Research (WCER). Over the years, WCER projects have provided valuable research and employment opportunities to EPS students.

The department's graduate students are diverse. They come with a wide range of backgrounds in education and in the liberal arts. They vary in age, ethnicity, and social background, as well as prior practical and educational experience. Students thus provide a resource for one another's scholarly development. Some ED POL courses are cross-listed in the College of Letters & Science; others are cross-listed with other departments in the School of Education. They consequently attract students who approach material with a broad range of intellectual perspectives and complementary knowledge.

Despite the variety structured into the program, the multidisciplinary backgrounds of faculty, and the diversity of students, the small size of the department often leads to closer ties between students and faculty than are possible in most larger departments. Doctoral students generally come to know several faculty well and have an opportunity to work closely together.

The cornerstone of the department's doctoral program is the concentration. The department offers concentrations in social sciences and education, history of education, and comparative international education and global studies. Concentrations are intended to embody the content knowledge and learning experiences that students need to achieve necessary levels of proficiency within a field of study. While these levels of proficiency are acquired largely through course work and other traditional academic activities, in appropriate fields they may also be based in work experiences, internships, independent studies, and similar activities.

CONCENTRATION IN SOCIAL SCIENCES AND EDUCATION

Students in the Social Sciences and Education (SSE) concentration apply disciplinary perspectives, theories and methodologies to the study of issues in educational policy. Faculty members in this concentration utilize sociological, anthropological, political, and economic perspectives. SSE members aim to inform public discourse and educational policy and practice.

EPS students choosing to concentrate in Social Sciences and Education will develop a program of study that combines deep exploration of a

particular educational problem, theoretical perspective, methodology, or disciplinary approach with broad grounding in social foundations of education and in key substantive fields relevant to educational policy and/or practice. Programs of study will be individually designed (with the support and approval of an EPS advisor) to reflect students' prior knowledge, skills and experience as well as their current educational goals. Students in this concentration are required to become well-versed in methodological approaches common to social science research, and specifically are required to take a methodology course and two research methods courses. Students within the concentration have the option to declare an "emphasis" in sociology, anthropology, or policy. In order to do so, at least two of their preliminary examination questions must be focused on the intended academic area of "emphasis."

Students who successfully complete this concentration should be well-prepared for careers as researchers, policy analysts, and advocates in academic, governmental, or non-governmental settings.

CONCENTRATION IN COMPARATIVE INTERNATIONAL EDUCATION AND GLOBAL STUDIES

Study in comparative international education prepares researchers, teachers, and planners who are interested in education across nations and cultures. Various modes of inquiry and the intellectual orientations of several disciplines are used to investigate, from a comparative and/or cross-cultural perspective, the following aspects of education in one or more geographical regions of the world: educational change and modernization, the interaction between education and development (social, political, economic), the politics of educational reform, educational planning and institution building, and the interrelationships of particular aspects of schools, societies, and cultures

CONCENTRATION IN HISTORY AND HUMANITIES

The study of history helps us understand past educational policies and practices in the context of their time. It also often provides a unique perspective on modern developments. Students in the history of education usually study subjects from interdisciplinary angles, adapting theories and interpretive points of view from the humanities as well as the social sciences in their understanding of the past. In addition, great emphasis is placed in the program on the mastery of core knowledge in the field, the honing of analytical tools, and the improvement of writing skills, all of which are useful in a variety of academic and other settings. Students who choose a concentration in the history of education may specialize in the history of American education, African American education, the history of European education, comparative history of education, or any combination of these approved by the student's advisory committee.

ADMISSIONS

Students may enter the department once a year, in fall. The deadline for applying is December 15, with applicants notified by letter before March 1. All applicants must apply online. Accepted students must respond in writing by April 15. The application is judged on the basis of previous academic record, other experience, 3 letters of recommendation, personal statement, vitae, writing sample, and the Graduate Record Exam (GRE) scores.

The admissions process in the department is the responsibility of the Admissions Committee. The committee will direct applications from qualified candidates to a faculty member in the department whose interests are similar to the applicant's. A temporary advisor must be

willing to accept temporary responsibility for the student's graduate program. If no temporary advisor can be found, the candidate cannot be admitted to graduate study. If a faculty member agrees to serve as temporary advisor and the applicant is judged qualified for admission, the student is notified that the department will recommend admission to the Graduate School. Formal notification of admission comes from the Graduate School.

All applications must include a substantial sample of academic writing. For applicants already having an approved master's thesis, the thesis must be submitted. For students holding an M.A. that did not require a thesis, and for applicants currently pursuing an M.A., a paper from a graduate-level course or seminar may be submitted. For students holding a B.A., the writing sample might include sections from an undergraduate thesis or seminar paper, or a course paper. Applicants who wish to submit an alternative writing sample (for example, solely authored published article, solely authored research report or section of a research report) should check first with the chair of the Admissions Committee.

For students who are admitted, the Admissions Committee will, in consultation with an applicant's prospective advisor, recommend admission to either the EPS masters program or the EPS doctoral program. See department website for application requirements.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

The department has a small number of teaching assistantships. In addition, students in educational policy studies are frequently successful in competing for assistantships on professors' research grants through the Wisconsin Center for Education Research and other research organizations on campus, as well as for administrative assistantships and for teaching assistantships in related departments. University assistantships of at least one-third time routinely provide tuition remission (except for segregated fees), medical insurance, and a stipend.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 51 credits

Minimum Residence Credit Requirement 32 credits

Minimum Graduate Coursework Requirement 30 of the 51 total credits must be completed in graduate-level course; must be completed in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Doctoral students are required to take a comprehensive preliminary/oral examination after they have cleared their record of all Incomplete and Progress grades (other than research and thesis). Deposit of the doctoral dissertation in the Graduate School is required.

Language Requirements Major professors have responsibility to determine whether students need to develop and demonstrate skill in one or more foreign languages for the program they plan. Dissertation work involving study of a setting where another language is spoken ordinarily requires such skill. The specific language required, if any, and the level of competence to be attained shall be determined by the student's major professor.

Whenever feasible, language examinations will be administered by the appropriate language department. Language requirements, if specified, must be met before the Preliminary Examination is taken.

Doctoral Minor/Breadth Requirements All doctoral students must complete a doctoral minor.

REQUIRED COURSES

In addition to the entering colloquium, ED POL 701 Introduction to Educational Policy Studies, the plan of study must include a concentration as well as appropriate breadth.

Concentrations: All EPS doctoral students, in consultation with their advisor and their advising committee, must develop a concentration which will consist of a minimum of **18 credits**, of which a minimum of **12 credits** must be taken within ED POL. No more than 3 Independent Study credits can be counted toward fulfilling the overall 18 credit minimum requirement, but Independent Study credits cannot replace and cannot be counted toward fulfilling the minimum 12 ED POL course credits. The required ED POL 701 course cannot be counted toward the concentration.

We anticipate that EPS students will often take courses outside of the department, in part, to fulfill, their concentration requirements. In all cases, actual course-taking specifics, and decisions with regard to fulfilling concentration requirements will be made in consultation between the student and the advisor. Courses cannot be counted twice. See below for examples of courses in Educational Policy Studies in three of the concentrations.

Breadth Requirement: All doctoral students, in consultation with their advisor and their advising committee, will develop a breadth requirement which will consist of a minimum of **12 ED POL course credits**. These 12 credits must be taken in domains other than the one in which the concentration is primarily identified. Course credits used to fulfill this breadth requirement cannot also be used to fulfill concentration requirements. Neither Independent Study credits nor the required ED POL 701 course may be counted toward the breadth requirement.

External Minor: All doctoral students must fulfill an external minor. Minimum course-taking requirements to fulfill the external minor are established by the external department.

As indicated above all candidates for the Ph.D., including those who began as M.A. candidates in the department, must take a **minimum of 30 credits** in the Department of Educational Policy Studies, including the required ED POL 701, and including no more than 3 credits of ED POL 999 Independent Reading. No ED POL 990 Research or Thesis credits may be used to fulfill this requirement.

Example Concentration Coursework

Code	Title	Credits
Courses in History and Humanities		

ED POL/ HISTORY 412	History of American Education	3	ED POL/SOC 908	Seminar-Sociology of Education	3
ED POL/ HISTORY 478	Comparative History of Childhood and Adolescence	3	ED POL/SOC 955	Seminar-Qualitative Methodology	3
ED POL/CURRIC/ RELIG ST 516	Religion and Public Education	3	ED POL/ ANTHRO 970	Seminar in Anthropology and Education	3
ED POL/PHILOS 545	Philosophical Conceptions of Teaching and Learning	3	Comparative International Education and Global Studies		
ED POL/PHILOS 550	Philosophy of Moral Education	3	ED POL/INTL ST 335	Globalization and Education	3
ED POL/ AFROAMER 567	History of African American Education	3	ED POL 340	Comparative Education	3
ED POL/ HISTORY 665	History of the Federal Role in American Education	3	ED POL 600	Problems in Educational Policy	1-3
ED POL/ HISTORY 622	History of Radical and Experimental Education in the US and UK	3	ED POL 675	Introduction to Comparative and International Education	3
ED POL/ HISTORY 713	History of Higher Education in Europe and America	3	ED POL/CURRIC 677	Education, Health and Sexuality: Global Perspective and Policies	3
ED POL 740	Classics in Education	3	ED POL 750	African Education: Past, Present and Future	3
ED POL 870	Theories of Social and Educational Change	3	ED POL 760	Education in Developing Societies	3
ED POL/ HISTORY 903	History of Education of Multicultural America	3	ED POL 860	Proseminar: Theory and Method in Comparative Education	3
ED POL/ HISTORY 906	Proseminar on the History of Education	1-3	ED POL 962	Seminar in Cross National Studies of Educational Problems	3
ED POL/ HISTORY 907	Seminar-History of Education	1-3	ED POL/CURRIC 963	Seminar-Educational Planning & Curric Change-Developing Countries	3
Courses in Social Sciences and Education					
ED POL 460	Immigration, Education, and Equity	3	POLICIES		
ED POL 500	Topics on Social Issues and Education	3	GRADUATE SCHOOL POLICIES		
ED POL 505	Issues in Urban Education in the U.S.	3	The Graduate School's Academic Policies and Procedures (https://grad.wisc.edu/acadpolicy) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.		
ED POL 518	Introduction to Debates in Higher Education Policy	3	MAJOR-SPECIFIC POLICIES		
ED POL/ GEN&WS 560	Gender and Education	3	GRADUATE PROGRAM HANDBOOK		
ED POL/ ANTHRO 570	Anthropology and Education	3	The Graduate Program Handbook (https://eps.education.wisc.edu/docs/WebDispenser/eps-documents/spring-2018-handbook.pdf?sfvrsn=0) is the repository for all of the program's policies and requirements.		
ED POL/SOC 648	Sociology of Education	3	PRIOR COURSEWORK		
ED POL/CURRIC 677	Education, Health and Sexuality: Global Perspective and Policies	3	Graduate Work from Other Institutions		
ED POL/C&E SOC/ SOC 755	Methods of Qualitative Research	3	With program approval, students are allowed to count no more than 6 credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree or earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.		
ED POL/ELPA/ PUB AFFR 765	Issues in Educational Policy Analysis	3	UW-Madison Undergraduate		
ED POL/ELPA/ PUB AFFR 795	Economics of Education	3	No credits from a UW-Madison undergraduate degree are allowed to count toward the degree.		
ED POL/GEN&WS/ PUB AFFR 805	Gender Issues in International Educational Policy	3	UW-Madison University Special		
ED POL/CURRIC 855	Issues in Elementary Education	3	With program approval, students are allowed to count no more than 6 credits of coursework numbered 340 or above taken as a UW-Madison Special student. Coursework earned five or more years prior to admission to a master's degree or earned		
ED POL 860	Proseminar: Theory and Method in Comparative Education	3			
ED POL 870	Theories of Social and Educational Change	3			
ED POL/ELPA 872	Educational Policy Research Design and Implementation	3			

ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies. An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor.

To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

OTHER

Students are eligible to compete for UW–Madison fellowships. The department has a small number of teaching and project assistantships. In addition, students in Educational Policy Studies are frequently successful in competing for assistantships on professors' research grants through the Wisconsin Center for Education Research and other research organizations on campus, as well as for administrative assistantships and teaching assistantships in related departments.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Articulate and conduct research related to the social, cultural, and/or historical contexts surrounding formal and/or informal education in the US and/or in a global context.
2. Interpret and critique educational policy in a national and/or global context.
3. Understand and analyze educational inequality related to race, class, gender and/or other dimensions.
4. Apply professional principles of ethical research.

PEOPLE

Faculty: Professors Bartlett, Kendall, Lee, Nelson (chair), Reese; Associate Professor Posey-Maddox; Assistant Professors Baldrige, Moeller, Turner, Stern

EDUCATIONAL PSYCHOLOGY

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Educational Psychology, Doctoral Minor (p. 459)
- Educational Psychology, M.S. (p. 460)
- Educational Psychology, Ph.D. (p. 466)
- Prevention and Intervention Science, Doctoral Minor (p. 472)
- Prevention and Intervention Science, Graduate/Professional Certificate (p. 473)

PEOPLE

Faculty: Professors Brown (chair), Asmus Bellmore, Bolt Enright, Kalish Kaplan, Kim, Nathan Puntambekar, Shaffer, Wollack; Associate Professors Albers, Steiner, Vlach; Assistant Professors Garbacz, Hubbard, Matthews, Rau; Clinical Assistant Professor Kelly

EDUCATIONAL PSYCHOLOGY, DOCTORAL MINOR

A Graduate Minor in Educational Psychology could enhance your graduate training in several ways:

- Expand your knowledge: Our minor program will expand your understanding of how individuals learn, processes of human development, research methods and statistics, and/or how to enhance learning and adjustment in school settings.
- Add to your credentials. Adding a Graduate Minor in Educational Psychology will enhance your resume or vitae and expand the positions for which you are qualified after completing your graduate program.

- Flexibility in course work. The minor can be individually tailored to your specific interests in educational psychology. From incorporating technology in classroom learning to the neuroscientific basis of education to the design of effective tests and research measures, you can select courses that build specific areas of expertise.

ADMISSIONS

- Meet with an Educational Psychology faculty member to learn your options and plan a set of courses. Students *must* have an Educational Psychology faculty member serve as their Graduate Minor Advisor. If the minor course work focuses on one of the Department's program areas, the advisor should be selected from among faculty members in that program area.
- Complete the Graduate Minor Request form, obtain your minor advisor's signature and file it with Ed Psych's Grad Student Services Coordinator, Room 852D Ed Sciences. The department will inform you when your graduate minor program has been approved.
- Graduate minor programs should be approved *before* students complete more than 2 courses that they intend to include in the program.
- Need to make an adjustment in your course plan? Contact your minor advisor to discuss any changes. Modify your form to indicate the new plan and send the update to the graduate student services coordinator.
- To obtain minor completion verification, stop by Room 852D with your prelim warrant and a copy of your transcript showing completion of grad minor courses. With this information you can obtain Ed Psych's department chair signature. Once this is completed, your department will obtain other needed signatures and file this form with the Graduate School.

REQUIREMENTS

At least 10 credits in educational psychology courses are required. All courses must be at the 500 level or above. A grade of B or better in each course is required.

PEOPLE

Faculty: Professors Brown (chair), Asmus Bellmore, Bolt Enright, Kalish Kaplan, Kim, Nathan Puntambekar, Shaffer, Wollack; Associate Professors Albers, Steiner, Vlach; Assistant Professors Garbacz, Hubbard, Matthews, Rau; Clinical Assistant Professor Kelly

EDUCATIONAL PSYCHOLOGY, M.S.

The Department of Educational Psychology offers the master of science and doctor of philosophy degrees in educational psychology. The programs for the M.S. and Ph.D. in educational psychology provide comprehensive knowledge of the field and intensive specialization in one of four areas of study and research: human development, learning sciences, quantitative methods, and school psychology.

The department provides for training in research. Many faculty members in the department conduct controlled research studies with human participants; schools and other agencies in the Madison area cooperate in facilitating such research projects. Principal research facilities include

the School of Education's Wisconsin Center for Education Research, and the multidisciplinary Waisman Center.

AREAS OF SPECIALIZATION ¹

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Human Development

Advisors: Professors Bellmore, Brown, Enright, Hubbard, Kalish, Matthews, Vlach

The program in human development adopts a life-span approach to individual change. Studying development in context is an important component of the program, so that research can make conceptual/theoretical contributions to the understanding of human behavior and can address practical concerns of educators, parents, and others concerned with the developing person. A course of study provides a breadth and depth of knowledge about human development and educational psychology and encourages more detailed study in specific interest areas. Early in the program, students are exposed to general theories and issues in human development; specific developmental processes in childhood, adolescence, adulthood, and old age; as well as associated statistical methods and research practices.

In the latter part of the program, students exercise individual choice in selecting courses in subject matter that will broaden or deepen an understanding of human developmental processes. Such coursework may also extend to other programs of the university in which there is a research focus in human development.

Learning Sciences

Advisors: Professors Kalish, Nathan, Puntambekar, Rau, Shaffer

This program area bridges learning sciences and educational practice. Scholarship encompasses the coordinated design and study of learning environments ranging from preschool to university education, and reaches outside of school to informal contexts for learning, like museums and after-school programs. Faculty interests include the design of technologies as tools for learning, prolonged longitudinal study of relations between teaching and learning, and the nature of knowledge in substantive domains of inquiry, like mathematics, science, and composition. The program of study emphasizes an apprenticeship model of scholarship with early engagement in substantive problems of learning and teaching. Students work in concert with faculty to develop research studies in each of the first two years of study. Courses are coordinated to promote the development of research and communication skills, so that students can become involved with important problems in educational research. As students progress in the program, they continue to work with faculty, both within and outside of the department, to craft systematic investigations of learning environments.

Quantitative Methods

Advisors: Professors Bolt, Kaplan, Kim, Steiner, Wollack

Educational research has a strong tradition of employing state-of-the-art statistical and psychometric (psychological measurement) techniques. Researchers in all areas of education develop measuring instruments, design and conduct experiments and surveys, and analyze data resulting from these activities. Because of this tradition, quantitative methods has long been an area of specialization within educational psychology. Graduates in this area teach, serve as consultants to educational

researchers, and conduct research on statistics and psychometrics in education-related fields. Within the program, the quantitative methods area offers the two major specializations of statistics and measurement.

The study of quantitative methods takes advantage of the range of resources at the University of Wisconsin–Madison and includes coursework in statistics, mathematics, and computer sciences, and in other units of the School of Education.

School Psychology

Advisors: Professors Albers, Asmus, Garbacz

Clinical Assistant Professor: Kelly

The graduate program in school psychology leads to a Ph.D. in educational psychology with a scientist–scholar–practitioner model of professional training. Students prepare for positions as professors in colleges and universities, psychologists in elementary and secondary schools, and with other organizations or agencies that focus on psychological services to children, youth, and families. The program is fully accredited by the American Psychological Association and the National Association of School Psychologists.

The areas of professional practice of school psychologists include psychological assessment and psychodiagnostic evaluation, prevention and intervention procedures, consultation and program planning, and research and evaluation. The program also requires study of applied behavior analysis, cognitive-behavior therapy, social-learning theory and ecological–behavioral–systems theory. Applied experience and training are provided in individual and group work with both typical classroom populations and special groups, including individuals with developmental disabilities and others with special education needs. Included in the practicum and internship experience is work with families, classroom peer groups, and community and school systems.

M.S. Degree Programs in Educational Psychology with Special Emphases

Advisors: Professors Brown, Enright, Kalish

The special-emphasis master's degree program is designed for individuals who want to improve their knowledge base and skills for functioning in educational settings. The program is built around educator needs and offers a flexible blend of coursework, independent study, and practicum experiences. It is designed to provide the student with an individualized program of theoretical and applied training, tailored to his or her interests, needs, and professional goals.

M.S. NAMED OPTION IN PROFESSIONAL EDUCATOR (MSPE)

The M.S. named option in Professional Educator (p. 464) (MSPE) is a formally documented sub-major in the M.S. It is a 30-credit master's degree program designed with a teaching professional's schedule in mind. Courses in the MSPE program emphasize practical strategies and applications. Participants are part of a two-year cohort learning group, completing a master's degree through a combination of technology-enhanced distance learning during the academic year and summer on-campus coursework.

have completed approximately 18 credits in courses that provide a relevant foundation for further study in educational psychology. Neither certification as a teacher nor teaching experience is required. An undergraduate grade point average of at least 3.0 (4.0 basis) based on the last 60 semester hours of undergraduate coursework is requisite. Also essential are a statement of purpose, Graduate Record Exam (GRE) scores, and three letters of recommendation.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Students are eligible to compete for UW–Madison fellowships. A limited number of teaching and project assistantships are available within the department, and prospective students are encouraged to refer to the instructions for fellowships and assistantships contained in the program application information.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules.

Take advantage of the convenience of online learning while participating in a rich,

ADMISSIONS

For admission to graduate work, the department does not require a specific undergraduate major. However, it is preferred that applicants

interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Human development and quantitative methods track: 33 credits

Requirement Learning sciences track: 36 credits
School psychology track: 55 credits

Note: These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Minimum Residence Credit Human development and quantitative methods track: 27 credits

Requirement Learning sciences track: 33 credits
School psychology track: 52 credits

Note: These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Minimum Graduate Coursework Requirement Half of degree coursework must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Contact the program for information on required assessments and examinations.

Language Requirements Contact the program for information on any language requirements.

REQUIRED COURSES

Human Development Track ¹

Code	Title	Credits
ED PSYCH 709	Seminar in Research in Educational Psychology I	3
ED PSYCH 710	Seminar in Research in Educational Psychology II	3

First Year Research Project

ED PSYCH 720	Child Development	3
ED PSYCH 721	Adolescent Development	3
ED PSYCH 760	Statistical Methods Applied to Education I	3
ED PSYCH 761	Statistical Methods Applied to Education II	3

Human Development area course

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Learning Sciences Track ¹

Code	Title	Credits
ED PSYCH 709	Seminar in Research in Educational Psychology I	3
ED PSYCH 710	Seminar in Research in Educational Psychology II	3
ED PSYCH 795	Introduction to Learning Sciences I	3
ED PSYCH 796	Introduction to the Learning Sciences II	3

Two classes (6 credits) in quantitative methods courses not including ED PSYCH 760 or its equivalent

One class (3 credits) in qualitative methods

One additional class (3 credits) in the Learning Sciences area

Current Issues in the Learning Sciences (1 credit per semester for two semesters)

Major Area Paper preparation class

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Quantitative Methods Track ¹

The Quantitative Area of the Department of Educational Psychology is divided into two subareas: (1) Educational Statistics and Research Methodology; and (2) Educational Measurement. Below are listed the requirements in each of these subareas.

• Educational Statistics and Research Methodology subarea

Code	Title	Credits
ED PSYCH 709	Seminar in Research in Educational Psychology I	3
ED PSYCH 710	Seminar in Research in Educational Psychology II	3
ED PSYCH 760	Statistical Methods Applied to Education I	3
ED PSYCH 761	Statistical Methods Applied to Education II	3
ED PSYCH 762	Introduction to the Design of Educational Experiments	3
ED PSYCH 763	Regression Models in Education	3

Two courses in the quantitative area (chosen in consultation with advisor)

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

• **Educational Measurement subarea**

Code	Title	Credits
ED PSYCH 709	Seminar in Research in Educational Psychology I	3
ED PSYCH 710	Seminar in Research in Educational Psychology II	3
ED PSYCH 760	Statistical Methods Applied to Education I	3
ED PSYCH 761	Statistical Methods Applied to Education II	3
ED PSYCH 771	Test Construction	3
Three courses in the quantitative area (chosen in consultation with advisor)		

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

School Psychology Track ¹

Code	Title	Credits
ED PSYCH 540	Introduction to Professional School Psychology	2
ED PSYCH 541	Applied Behavior Analysis in Classrooms	3
ED PSYCH/ COUN PSY/ HDFS 726	Ethnic and Racial Diversity in Social Development	3
ED PSYCH 740	Cognitive Assessment of Children in the Schools	3
ED PSYCH 741	Social, Emotional, and Behavioral Assessment	3
ED PSYCH 742	Assessment and Intervention for Academic Skill Problems	3
ED PSYCH 743	Design and Analysis of Single-Case Research	3
ED PSYCH 761	Statistical Methods Applied to Education II	3
ED PSYCH 762	Introduction to the Design of Educational Experiments	3
ED PSYCH 844	Childhood and Adolescent Psychopathology in Schools	3
ED PSYCH 942	Systems of Consultation in School Psychology	2-3
ED PSYCH 947	Evidenced-based Child and Adolescent Psychotherapy	3
ED PSYCH 948	Research and Measurement Seminar in School Psychology	3
ED PSYCH 840	Clinical Practicum in School Psychology	1-6

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do

not appear in the Graduate School admissions application, and they will not appear on the transcript.

NAMED OPTIONS (SUB-MAJORS)

A named option is a formally documented sub-major within an academic major program. Named options appear on the transcript with degree conferral.

- Educational Psychology: Professional Educator (MSPE), M.S. (p. 464)

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 9 credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's is not allowed to satisfy requirements.

UW-Madison Undergraduate

No credits from a UW-Madison undergraduate degree are allowed to count toward the degree.

UW-Madison University Special

With program approval, students are allowed to count no more than 9 credits of coursework numbered 300 or above taken as a UW-Madison University Special student. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor.

An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

n/a

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Acquire a strong foundation in current and past theories, research findings, and methodologies in their program area.
2. Become acquainted with the implications of human diversity (in terms of individual abilities and orientations and sociocultural backgrounds) for research and practice in their chosen field of study.
3. Learn the fundamentals of research design, data collection, and data analysis through participating in ongoing research or conducting their own research project(s).
4. Identify key features of high-quality research or program implementation/evaluation in their chosen field.
5. Develop writing and oral skills needed to effectively communicate results of scientific research to academic, professional/practitioner, and lay audiences.
6. Learn how to conduct research or program implementation/evaluation in accordance with ethical standards established in their field of inquiry.

PEOPLE

Faculty: Professors Brown (chair), Asmus Bellmore, Bolt Enright, Kalish Kaplan, Kim, Nathan Puntambekar, Shaffer, Wollack; Associate Professors Albers, Steiner, Vlach; Assistant Professors Garbacz, Hubbard, Matthews, Rau; Clinical Assistant Professor Kelly

EDUCATIONAL PSYCHOLOGY: PROFESSIONAL EDUCATOR (MSPE), M.S.

This is a named option in the Educational Psychology M.S. (p. 460) The Master of Science for Professional Educators (MSPE) is a convenient, uniquely blended distance education program offered through the Department of Educational Psychology in the School of Education.

All courses are fully online, including an eight-week summer session.

MSPE integrates courses from three School of Education departments—Educational Psychology, Curriculum and Instruction, and Educational Leadership and Policy Analysis—leading to a Master of Science in Educational Psychology degree. In just two years, teaching professionals can complete this degree in one of the leading educational psychology departments (as listed in the rankings of the *U.S. News & World Report's* edition of best graduate schools).

ADMISSIONS

GENERAL INFORMATION

- The admissions deadline is April 1; however, the application period is closed when enrollment capacity is reached. Applying early is important.
- We use a “rolling admissions” process in which applications are reviewed as they are received.
- Applicants are informed of their enrollment status within a few weeks of their applications.
- Please note that GRE scores are not required.

PROGRAM REQUIREMENTS

- Undergraduate GPA of 3.00 or higher based on the last 60 credits earned from the degree granting institution.
- Two years or more of PK–12 teaching experience.
- Basic computer skills and equipment.
- Teaching PK–12 during the two years enrolled in the program is required. This can be part-time or full-time in a public or private school.

There are circumstances in which exceptions can be made regarding admissions requirements. Please contact us with questions (mspe@education.wisc.edu).

All applicants are advised to determine whether this program meets requirements for licensure in the state where they live. See the U.S. Department of Education (<http://www2.ed.gov/about/contacts/state>) website for contact information for state licensing boards.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

TUITION

Tuition for MSPE classes is \$800 per credit.

FEES

Currently, no additional fees are charged to students.

ADDITIONAL COSTS

Students are responsible for purchasing required materials, such as textbooks, for their courses. Instructors will provide information regarding required materials to students upon enrollment.

Students are also responsible for travel and housing costs associated with the two-week Summer Residency.

FINANCIAL AID

Information on financial aid is available through the UW–Madison Office of Student Financial Aid (<https://financialaid.wisc.edu>).

Students enrolled in the MSPE program are not permitted to accept teaching assistantships, project assistantships, research assistantships, or other appointments that would result in a tuition waiver.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
No	No	Yes	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich,

interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum 30 credits

Credit Requirement

Minimum 30 credits

Residence

Credit

Requirement

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall 3.00 GPA required.

Graduate GPA

Requirement

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Contact the program for information on required assessments and examinations.

Language Requirements Contact the program for information on any language requirements.

REQUIRED COURSES

Code	Title	Credits
Year 1, Summer Term		
CURRIC 731	Collaborative Teamwork for Inclusive School Reform	3
CURRIC 713	Technology Integration for Teaching and Learning	3
ED PSYCH 752	Engaging with Education Research	1
Year 1, Fall Term		
ELPA/ED PSYCH 780	Teacher Leadership and Learning Communities	4
Year 1, Spring Term		
ELPA 640	Legal Rights and Responsibilities for Teachers	3
ED PSYCH 711	Current Topics in Educational Psychology	1
Year 2, Summer Term		
CURRIC 537	Teaching Diverse Learners	3

ED PSYCH 745	Designing and Managing the Learning Environment	3
ED PSYCH 711	Current Topics in Educational Psychology	1
Year 2, Fall Term		
ED PSYCH 791	Master of Science for Professional Educators Capstone	1
ED PSYCH 570	Foundations of Educational Measurement	3
Year 2, Spring Term		
ED PSYCH 711	Current Topics in Educational Psychology	4
Total Credits		30

An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Students in the MSPE program are not permitted to hold assistantships with tuition remission.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PROGRAM RESOURCES

Many MSPE students have crafted Professional Development Plans with their schools and/or districts. MSPE students are encouraged to share these goals with MSPE faculty so instructors can work with students to facilitate progress toward specific professional goals.

PEOPLE

Faculty: Professors Brown (chair), Asmus Bellmore, Bolt Enright, Kalish Kaplan, Kim, Nathan Puntambekar, Shaffer, Wollack; Associate Professors Albers, Steiner, Vlach; Assistant Professors Garbacz, Hubbard, Matthews, Rau; Clinical Assistant Professor Kelly

EDUCATIONAL PSYCHOLOGY, PH.D.

The Department of Educational Psychology offers the master of science and doctor of philosophy degrees in educational psychology. The programs for the M.S. and Ph.D. in educational psychology provide comprehensive knowledge of the field and intensive specialization in one of four areas of study and research: human development, learning sciences, quantitative methods, and school psychology.

The department provides for training in research. Many faculty members in the department conduct controlled research studies with human participants; schools and other agencies in the Madison area cooperate in facilitating such research projects. Principal research facilities include the School of Education's Wisconsin Center for Education Research, and the multidisciplinary Waisman Center.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

No credits from other institutions are allowed to count toward the degree.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

No credits taken as a UW–Madison University Special student are allowed to count toward the degree.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor.

AREAS OF SPECIALIZATION

Human Development

Advisors: Professors Bellmore, Brown, Enright, Hubbard, Kalish, Matthews, Vlach

The program in human development adopts a life-span approach to individual change. Studying development in context is an important component of the program, so that research can make conceptual/theoretical contributions to the understanding of human behavior and can address practical concerns of educators, parents, and others concerned with the developing person. A course of study provides a breadth and depth of knowledge about human development and educational psychology and encourages more detailed study in specific interest areas. Early in the program, students are exposed to general theories and issues in human development; specific developmental processes in childhood, adolescence, adulthood, and old age; as well as associated statistical methods and research practices.

In the latter part of the program, students exercise individual choice in selecting courses in subject matter that will broaden or deepen an understanding of human developmental processes. Such coursework may also extend to other programs of the university in which there is a research focus in human development.

Learning Sciences

Advisors: Professors Kalish, Nathan, Puntambekar, Rau, Shaffer

This program area bridges learning sciences and educational practice. Scholarship encompasses the coordinated design and study of learning environments ranging from preschool to university education, and reaches outside of school to informal contexts for learning, like museums and after-school programs. Faculty interests include the design of technologies as tools for learning, prolonged longitudinal study of relations between teaching and learning, and the nature of knowledge in substantive domains of inquiry, like mathematics, science, and composition. The program of study emphasizes an apprenticeship model of scholarship with early engagement in substantive problems of learning and teaching. Students work in concert with faculty to develop research studies in each of the first two years of study. Courses are coordinated to promote the development of research and communication skills, so that students can become involved with important problems in educational research. As students progress in the program, they continue to work with faculty, both within and outside of the department, to craft systematic investigations of learning environments.

Quantitative Methods

Advisors: Professors Bolt, Kaplan, Kim, Steiner, Wollack

Educational research has a strong tradition of employing state-of-the-art statistical and psychometric (psychological measurement) techniques. Researchers in all areas of education develop measuring instruments, design and conduct experiments and surveys, and analyze data resulting from these activities. Because of this tradition, quantitative methods has long been an area of specialization within educational psychology. Graduates in this area teach, serve as consultants to educational researchers, and conduct research on statistics and psychometrics in education-related fields. Within the program, the quantitative methods area offers the two major specializations of statistics and measurement.

The study of quantitative methods takes advantage of the range of resources at the University of Wisconsin–Madison and includes coursework in statistics, mathematics, and computer sciences, and in other units of the School of Education.

School Psychology

Advisors: Professors Albers, Asmus, Garbacz

Clinical Assistant Professor: Kelly

The graduate program in school psychology leads to a Ph.D. in educational psychology with a scientist–scholar–practitioner model of professional training. Students prepare for positions as professors in colleges and universities, psychologists in elementary and secondary schools, and with other organizations or agencies that focus on psychological services to children, youth, and families. The program is fully accredited by the American Psychological Association and the National Association of School Psychologists.

The areas of professional practice of school psychologists include psychological assessment and psychodiagnostic evaluation, prevention and intervention procedures, consultation and program planning, and research and evaluation. The program also requires study of applied behavior analysis, cognitive-behavior therapy, social-learning theory and ecological–behavioral–systems theory. Applied experience and training are provided in individual and group work with both typical classroom populations and special groups, including individuals with developmental disabilities and others with special education needs. Included in the practicum and internship experience is work with families, classroom peer groups, and community and school systems.

ADMISSIONS

For admission to graduate work, the department does not require a specific undergraduate major. However, it is preferred that applicants have completed approximately 18 credits in courses that provide a relevant foundation for further study in educational psychology. Neither certification as a teacher nor teaching experience is required. An undergraduate grade point average of at least 3.0 (4.0 basis) based on the last 60 semester hours of undergraduate coursework is requisite. Also essential are a statement of purpose, Graduate Record Exam (GRE) scores, and three letters of recommendation.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Students are eligible to compete for UW–Madison fellowships. A limited number of teaching and project assistantships are available within the department, and prospective students are encouraged to refer to the

instructions for fellowships and assistantships contained in the program application information.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Human development track: 56 credits
Credit Learning sciences and quantitative methods tracks: 54
Requirement credits
School psychology track: 110 credits

Note: These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Minimum Residence Credit Requirement	32 credits
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Minimum Graduate Coursework Requirement	Half of degree coursework must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.
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Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.
Assessments and Examinations	Doctoral students are required to take a comprehensive preliminary/oral examination after they have cleared their record of all Incomplete and Progress grades (other than research and thesis). Deposit of the doctoral dissertation in the Graduate School is required.
Language Requirements	Contact the program for information on any language requirements.
Doctoral Minor/Breadth Requirements	All doctoral students are required to complete a minor.

REQUIRED COURSES

Human Development Track ¹

Code	Title	Credits
<i>M.S. Requirements</i>		
ED PSYCH 709	Seminar in Research in Educational Psychology I	3
ED PSYCH 710	Seminar in Research in Educational Psychology II	3
First Year Research Project		
ED PSYCH 720	Child Development	3
ED PSYCH 721	Adolescent Development	3
ED PSYCH 760	Statistical Methods Applied to Education I	3
ED PSYCH 761	Statistical Methods Applied to Education II	3
Human Development area course		
<i>Additional Ph.D. Requirements</i>		
Two (2) Human Development area courses		
ED PSYCH 762	Introduction to the Design of Educational Experiments	3
ED PSYCH 763	Regression Models in Education	3
Doctoral Minor coursework		
Additional Courses		20

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Learning Sciences Track ¹

Code	Title	Credits
<i>M.S. Requirements</i>		
ED PSYCH 709	Seminar in Research in Educational Psychology I	3
ED PSYCH 710	Seminar in Research in Educational Psychology II	3

ED PSYCH 795	Introduction to Learning Sciences I	3
ED PSYCH 796	Introduction to the Learning Sciences II	3
Two classes (6 credits) in quantitative methods courses not including ED PSYCH 760 or its equivalent		
One class (3 credits) in qualitative methods		
One additional class (3 credits) in the Learning Sciences area		
Current Issues in the Learning Sciences (1 credit per semester for two semesters)		
Major Area Paper preparation class		
<i>Additional Ph.D. Requirements</i>		
18 credits chosen from the following (or other courses approved by advisor)		
ED PSYCH 711	Current Topics in Educational Psychology (Topics: Grants and Grant Writing, Applied Regression Analysis, Embodied Cognition, Quantitative Ethnography)	1-3
ED PSYCH 771	Test Construction	3
ED PSYCH 792	Tools for Thought	3
CURRIC 975	General Seminar (Topics: Computational Research Methods, Interactive Exhibit Design, Computational Literacy, Discourse Analysis and Education)	2-3
ELPA 703	Evaluating and Supporting Quality Classroom Teaching	3
ELPA 844	Technology and School Leadership	3
COMP SCI/ ED PSYCH/ PSYCH 770	Human-Computer Interaction	3
PHILOS 503	Theory of Knowledge	3
Doctoral Minor coursework		10

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Quantitative Methods Track ¹

The Quantitative Area of the Department of Educational Psychology is divided into two subareas: (1) Educational Statistics and Research Methodology; and (2) Educational Measurement. Below are listed the requirements in each of these subareas.

• Educational Statistics and Research Methodology subarea

Code	Title	Credits
ED PSYCH 709	Seminar in Research in Educational Psychology I	3
ED PSYCH 710	Seminar in Research in Educational Psychology II	3
ED PSYCH 760	Statistical Methods Applied to Education I	3
ED PSYCH 761	Statistical Methods Applied to Education II	3

ED PSYCH 762	Introduction to the Design of Educational Experiments	3
ED PSYCH 763	Regression Models in Education	3
ED PSYCH 771	Test Construction	3
ED PSYCH 960	Structural Equation Modeling	3
ED PSYCH 963	Design & Analysis of Quasi-Experiments for Causal Inference	3
ED PSYCH/ELPA 964	Hierarchical Linear Modeling	3
STAT/MATH 309	Introduction to Probability and Mathematical Statistics I	3
or STAT 311	Introduction to Theory and Methods of Mathematical Statistics I	
STAT/MATH 310	Introduction to Probability and Mathematical Statistics II	3
or STAT 312	Introduction to Theory and Methods of Mathematical Statistics II	

Recommended Elective Courses (chosen in consultation with advisor):

ED PSYCH 773	Factor Analysis, Multidimensional Scaling and Cluster Analysis	3
ED PSYCH 871	Test Theory II	3
ED PSYCH 971	Advanced Seminar in Educational Measurement and Statistics	1-2

Other statistics courses

Other courses from the Learning Sciences, Human Development, and School Psychology tracks

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

• Educational Measurement subarea

Code	Title	Credits
ED PSYCH 709	Seminar in Research in Educational Psychology I	3
ED PSYCH 710	Seminar in Research in Educational Psychology II	3
ED PSYCH 760	Statistical Methods Applied to Education I	3
ED PSYCH 761	Statistical Methods Applied to Education II	3
ED PSYCH 762	Introduction to the Design of Educational Experiments	3
ED PSYCH 763	Regression Models in Education	3
ED PSYCH 771	Test Construction	3
ED PSYCH 773	Factor Analysis, Multidimensional Scaling and Cluster Analysis	3
ED PSYCH 871	Test Theory II	3
ED PSYCH 960	Structural Equation Modeling	3
STAT/MATH 309	Introduction to Probability and Mathematical Statistics I	3
or STAT 311	Introduction to Theory and Methods of Mathematical Statistics I	
STAT/MATH 310	Introduction to Probability and Mathematical Statistics II	stat 312

Recommended Elective Courses (chosen in consultation with advisor):

ED PSYCH 963	Design & Analysis of Quasi-Experiments for Causal Inference	3
ED PSYCH 971	Advanced Seminar in Educational Measurement and Statistics	1-2
Other measurement/assessment/evaluation and statistics courses		
Other courses in the Learning Sciences, Human Development, and School Psychology tracks		

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

School Psychology Track ¹

Code	Title	Credits
ED PSYCH 540	Introduction to Professional School Psychology	2
ED PSYCH 541	Applied Behavior Analysis in Classrooms	3
ED PSYCH 542	The Biological Basis of Behavior	3
ED PSYCH/ HDFS 725	Theory and Issues in Human Development	3
ED PSYCH/ COUN PSY/ HDFS 726	Ethnic and Racial Diversity in Social Development	3
COUN PSY/PSYCH/ RP & SE 729	Advanced Social Psychology	3
ED PSYCH/ COUN PSY/ RP & SE 737	Seminar in History and Systems of Psychology	3
ED PSYCH 740	Cognitive Assessment of Children in the Schools	3
ED PSYCH 741	Social, Emotional, and Behavioral Assessment	3
ED PSYCH 742	Assessment and Intervention for Academic Skill Problems	3
ED PSYCH 743	Design and Analysis of Single-Case Research	3
ED PSYCH 760	Statistical Methods Applied to Education I	3
ED PSYCH 761	Statistical Methods Applied to Education II	3
ED PSYCH 762	Introduction to the Design of Educational Experiments	3
ED PSYCH 795	Introduction to Learning Sciences I	3
ED PSYCH 844	Childhood and Adolescent Psychopathology in Schools	3
ED PSYCH 845	Psychopharmacological Treatments for Children and Adolescents	3
ED PSYCH 942	Systems of Consultation in School Psychology	2-3
ED PSYCH 946	Advanced Assessment and Intervention Techniques	3

ED PSYCH 947	Evidenced-based Child and Adolescent Psychotherapy	3
ED PSYCH 948	Research and Measurement Seminar in School Psychology	3
ED PSYCH 840	Clinical Practicum in School Psychology	1-6
ED PSYCH/ COUN PSY/PSYCH/ RP & SE 995	Predocutorial Internship	0-12
or ED PSYCH 943 Internship in School Psychology		
Doctoral Minor coursework ¹		10

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 9 credits of graduate coursework from other institutions. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

With program approval, students are allowed to count no more than 9 credits of coursework numbered 300 or above taken as a UW–Madison University Special student. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies. An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor.

To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

OTHER

For the Ph.D. program, the department offers assistantships to incoming students (pending available funding).

derive testable hypotheses or predictions for their own research / program evaluation projects.

4. Learn to design realistic and feasible research or assessment projects in their program area and to prepare necessary protocols that are sensitive to the backgrounds of individuals who are the focus of their work.

5. Conduct independent research and analyze and interpret resulting data.

6. Create clear and concise reports of their research or program evaluations that are appropriate to the intended audiences, which may include fellow scholars (via scholarly journals), practitioners (via practitioner journals or reports), and lay audiences (via online or other published reports).

7. Communicate effectively in collaborative work, instructional activities, and/or consultation settings with students and professional colleagues.

8. Conduct research or program implementation / evaluation in accordance with ethical standards established in their field of inquiry.

PEOPLE

Faculty: Professors Brown (chair), Asmus Bellmore, Bolt Enright, Kalish Kaplan, Kim, Nathan Puntambekar, Shaffer, Wollack; Associate Professors Albers, Steiner, Vlach; Assistant Professors Garbacz, Hubbard, Matthews, Rau; Clinical Assistant Professor Kelly

ACCREDITATION

Accreditation

American Psychological Association (<http://www.apa.org>)

Accreditation status: Accredited. Next accreditation review: 2019.

Certification/Licensure

School Psychologist Praxis Exam (NASP) (<http://apps.nasponline.org/standards-and-certification/graduate-education/index.aspx?id=133478>)

Year of Exam	UW-Madison Graduates: First Attempt	National First Attempt
2016-2017	100%	not available
2015-2016	100%	not available
2014-2015	100%	not available

Note: The table shows pass rates on a national certification exam. Licenses are awarded at the state-level.

Examination for Professional Practice in Psychology (<http://www.asppb.net>)

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Acquire a strong foundation in current and past theories, research findings, and methodologies in their program area. Use critical thinking skills to synthesize existing knowledge, evaluate strengths and limitations in existing theory and research, and identify issues in need of additional inquiry - including conceptual and methodological approaches available to address these issues.

2. Demonstrate a knowledge of and sensitivity to human diversity in terms of individual abilities and orientations and sociocultural backgrounds.

3. Retrieve, evaluate, and interpret professional and scientific literature; use this information to develop or adapt theoretical frameworks and

Year of Exam	UW-Madison Graduates: First Attempt	National First Attempt
2015-2017	93.33%	80.81%

Note: Because of the relatively small size of many doctoral programs, EPPP pass rates are reported only in terms of the three-year moving average. The table shows pass rates on a national certification exam. Licenses are awarded at the state-level.

PREVENTION AND INTERVENTION SCIENCE, DOCTORAL MINOR

The doctoral minor has three special features:

1. Training emphasizes programmatic efforts that seek to prevent the development of problematic outcomes and to promote optimal functioning in individuals or groups across the life course.
2. Preventive interventions are implemented and evaluated in family, school, and community contexts—their outcome is investigated in interaction within these contexts.
3. Training emphasizes methodological and statistical training and their applications in prevention research. Particular attention is given to the concentrations of interventions in social services, health, and education; family and community studies; social policy; and methodology.

This multidisciplinary program addresses contemporary health and social issues facing at-risk and vulnerable groups across the life course. Participating units are Rehabilitation Psychology and Special Education; Educational Psychology; Human Development and Family Studies; Nursing; Population Health Sciences; and Social Work.

ADMISSIONS

Application information for the doctoral minor and graduate/professional certificate are available online (see website). Completed applications must be signed by faculty advisors and submitted to Carol Aspinwall, Coordinator of Doctoral Student Academic Services, School of Nursing, CSC K6/133, 600 Highland Ave, Madison, WI 53792; caaspinwall@wisc.edu.

REQUIREMENTS

TRAINING OPTIONS

Students may earn a doctoral minor or a graduate/professional certificate (p. 473) in Prevention and Intervention Science.

Doctoral students may earn the doctoral minor in prevention and intervention science. The doctoral minor (Option A) in prevention science requires 10 credits in approved courses. It is a named minor that is listed on student transcripts.

AREAS OF CONCENTRATION

Four areas of concentration are available. Students must select one as a major emphasis.

Interventions in Social Services, Health, and Education

The design, implementation, evaluation, and dissemination of a variety of programs in education, health, and social welfare are of high societal priority and are reflected in training. School-based programs are increasingly viewed as key strategies of educational reform. Social service and health delivery to children, families, and adults continue to undergo substantial innovation. The promotion of health and development of individuals and groups with and without special health-care needs also is a focal point of interventions.

Social Policy

This area concerns how social policies and issues affect human and family behavior across the life course. Substantive areas include, among others, child care, poverty, welfare reform, school reform, and health-care reform. An emphasis is given to large-scale policies and programs as well as dissemination and use.

Family and Community Studies

How family and community contexts and processes affect individuals is a key issue for the development and analysis of preventive interventions, and for basic research on families and communities. Family and community-based programs are central to addressing myriad social problems and issues. The relationship between family development and other major social contexts such as neighborhoods, communities, and service systems also are important.

Methodology

An ever-expanding number of quantitative and qualitative methods are available for conducting prevention research. Basic and advanced statistical and methodological training are essential to high-quality graduate training. Gaining understanding and experience in conducting research in field settings is key to developing methodological skills. Some topics to be covered in training include structural equation modeling, hierarchical linear modeling, growth curve modeling, and ethnography.

COURSES

Two courses in prevention science, a practicum, and approved elective courses are required of students seeking the doctoral minor or graduate/professional certificate. It is recommended that the two courses in prevention science be taken in the second year of a student's graduate program after introductory courses in theory and a substantive area have been taken in the student's home department.

Code	Title	Credits
Required Courses		
ED PSYCH/ HDFS/NURSING/ SOC WORK 880	Prevention Science ¹	3
ED PSYCH/ HDFS/NURSING/ SOC WORK 881	Capstone Seminar in Prevention Science ²	1
Practicum ³		
Electives ⁴		
Students should select two to four additional courses in one of the areas of concentration. Examples of courses that meet the requirements of the minor and certificate program are listed below.		
NURSING 702	Health Promotion and Disease Prevention in Diverse Communities	3
SOC WORK 921	Child Welfare	2-3
ED PSYCH 920	Seminar in Child Development	2-3

SOC WORK 952	PhD Proseminar	3
HDFS 872	Bridging the Gap Between Research and Action	3
HDFS 843	Family Policy: How It Affects Families & What Professionals Can Do	3
HDFS 766	Current Topics in Human Development and Family Studies	1-3
HDFS 869	Advanced Seminar in Family Stress and Coping	3
NURSING 713	Family Process, Health and Illness	3
ED PSYCH 862	Multivariate Analysis	3
SOC/ED POL 955	Seminar-Qualitative Methodology	3
CURRIC 726	Qualitative Methods of Studying Children and Contexts	3
PUB AFFR/ A A E/ENVIR ST/ POP HLTH 881	Benefit-Cost Analysis	3
HDFS 766	Current Topics in Human Development and Family Studies	1-3
NURSING 701	Interpretive Research in Health Care Settings	3

¹ This course is typically offered during the fall semester.

² This course, typically offered each spring, should be taken after completing SOC WORK/ED PSYCH/HDFS/NURSING 880 and at or near the end of the minor program.

³ Students must participate in a prevention-related research project (practicum) with university faculty as part of the training program. The practicum will result in the completion of a product (e.g., evaluation or intervention report, program or training manual) associated with one of the four concentration areas. This project provides opportunities to apply prevention concepts, methods, and approaches to important educational, health, or social issues and problems. The practicum can be used to supplement the student's educational program without course credit or can be taken for 1–3 research credits that count toward satisfying the requirements of the minor or certificate program.

On-campus institutes that are likely to provide training experiences for the practicum and for student research include the Institute on Aging, Waisman Center on Mental Retardation and Human Development, Institute for Research on Poverty, and Wisconsin Center for Educational Research.

⁴ Courses required for a student's major area of study may be counted toward the certificate program but not the doctoral minor. Other courses can be recommended by students or faculty and are subject to approval of the program faculty.

PEOPLE

Faculty: Professors Carter (Rehabilitation Psychology and Special Education), Albers (Educational Psychology), Magnuson (Social Work), Riesch (Nursing), Sparks (Human Development and Family Studies)

PREVENTION AND INTERVENTION SCIENCE, GRADUATE/ PROFESSIONAL CERTIFICATE

The doctoral minor and graduate/professional certificate have three special features:

1. Training emphasizes programmatic efforts that seek to prevent the development of problematic outcomes and to promote optimal functioning in individuals or groups across the life course.
2. Preventive interventions are implemented and evaluated in family, school, and community contexts—their outcome is investigated in interaction within these contexts.
3. Training emphasizes methodological and statistical training and their applications in prevention research. Particular attention is given to the concentrations of interventions in social services, health, and education; family and community studies; social policy; and methodology.

This multidisciplinary program addresses contemporary health and social issues facing at-risk and vulnerable groups across the life course. Participating units are Rehabilitation Psychology and Special Education; Educational Psychology; Human Development and Family Studies; Nursing; Population Health Sciences; and Social Work. Training leads to a doctoral minor (Option A) or a graduate/professional certificate in prevention and intervention science.

ADMISSIONS

Application information for the doctoral minor and graduate/professional certificate are available online (see Web site). Completed applications must be signed by faculty advisors and submitted to Carol Aspinwall, Coordinator of Doctoral Student Academic Services, School of Nursing, CSC K6/133, 600 Highland Ave, Madison, WI 53792; caaspinwall@wisc.edu.

REQUIREMENTS

TRAINING OPTIONS

Students may earn a graduate/professional certificate or a doctoral minor (p. 472) in Prevention and Intervention Science.

Graduate students may earn a graduate/professional certificate in prevention science by completing a total of 16 credits in approved courses. One course must be in methodology. Students can also use a research practicum of 3 credits toward the certificate requirement.

AREAS OF CONCENTRATION

Four areas of concentration are available. Students must select one as a major emphasis.

Interventions in Social Services, Health, and Education

The design, implementation, evaluation, and dissemination of a variety of programs in education, health, and social welfare are of high societal priority and are reflected in training. School-based programs are increasingly viewed as key strategies of educational reform. Social service and health delivery to children, families, and adults continue to undergo substantial innovation. The promotion of health and

development of individuals and groups with and without special health-care needs also is a focal point of interventions.

Social Policy

This area concerns how social policies and issues affect human and family behavior across the life course. Substantive areas include, among others, child care, poverty, welfare reform, school reform, and health-care reform. An emphasis is given to large-scale policies and programs as well as dissemination and use.

Family and Community Studies

How family and community contexts and processes affect individuals is a key issue for the development and analysis of preventive interventions, and for basic research on families and communities. Family and community-based programs are central to addressing myriad social problems and issues. The relationship between family development and other major social contexts such as neighborhoods, communities, and service systems also are important.

Methodology

An ever-expanding number of quantitative and qualitative methods are available for conducting prevention research. Basic and advanced statistical and methodological training are essential to high-quality graduate training. Gaining understanding and experience in conducting research in field settings is key to developing methodological skills. Some topics to be covered in training include structural equation modeling, hierarchical linear modeling, growth curve modeling, and ethnography.

COURSES

Two courses in prevention science, a practicum, and approved elective courses are required of students seeking the doctoral minor or graduate/professional certificate. It is recommended that the two courses in prevention science be taken in the second year of a student's graduate program after introductory courses in theory and a substantive area have been taken in the student's home department.

Code	Title	Credits
Required Courses		
ED PSYCH/ HDFS/NURSING/ SOC WORK 880	Prevention Science ¹	3
ED PSYCH/ HDFS/NURSING/ SOC WORK 881	Capstone Seminar in Prevention Science ²	1
Practicum ³		
Electives ⁴		
Students should select two to four additional courses in one of the areas of concentration. Examples of courses that meet the requirements of the minor and certificate program are listed below.		
NURSING 702	Health Promotion and Disease Prevention in Diverse Communities	3
SOC WORK 921	Child Welfare	2-3
ED PSYCH 920	Seminar in Child Development	2-3
SOC WORK 952	PhD Proseminar	3
HDFS 872	Bridging the Gap Between Research and Action	3
HDFS 843	Family Policy: How It Affects Families & What Professionals Can Do	3

HDFS 766	Current Topics in Human Development and Family Studies	1-3
HDFS 869	Advanced Seminar in Family Stress and Coping	3
NURSING 713	Family Process, Health and Illness	3
ED PSYCH 862	Multivariate Analysis	3
SOC/ED POL 955	Seminar-Qualitative Methodology	3
CURRIC 726	Qualitative Methods of Studying Children and Contexts	3
PUB AFFR/ A A E/ENVIR ST/ POP HLTH 881	Benefit-Cost Analysis	3
HDFS 766	Current Topics in Human Development and Family Studies	1-3
NURSING 701	Interpretive Research in Health Care Settings	3

- ¹ This course is typically offered during the fall semester.
- ² This course, typically offered each spring, should be taken after completing SOC WORK/ED PSYCH/HDFS/NURSING 880/SOC WORK/ED PSYCH/HDFS/NURSING 880 and at or near the end of the minor program.
- ³ Students must participate in a prevention-related research project (practicum) with university faculty as part of the training program. The practicum will result in the completion of a product (e.g., evaluation or intervention report, program or training manual) associated with one of the four concentration areas. This project provides opportunities to apply prevention concepts, methods, and approaches to important educational, health, or social issues and problems. The practicum can be used to supplement the student's educational program without course credit or can be taken for 1–3 research credits that count toward satisfying the requirements of the minor or certificate program. On-campus institutes that are likely to provide training experiences for the practicum and for student research include the Institute on Aging, Waisman Center on Mental Retardation and Human Development, Institute for Research on Poverty, and Wisconsin Center for Educational Research.
- ⁴ Courses required for a student's major area of study may be counted toward the certificate program but not the doctoral minor. Other courses can be recommended by students or faculty and are subject to approval of the program faculty.

LEARNING OUTCOMES

1. Students will identify, explain, and demonstrate the core foundational concepts within prevention science and compare and contrast with other closely related professional domains.
2. Students will define, explain, and demonstrate how the concepts of risk, promotive, and protective factors are associated with different positive and negative outcomes and how theories related to human behavior and development describe the processes and mechanisms through which risk, promotive, and protective factors are related to positive and negative outcomes.
3. Students will explain and demonstrate prevention/intervention development principles and how to engage relevant stakeholders in the

development, adaptation, and implementation of prevention/intervention programs.

4. Students will identify appropriate research design principles and various statistical methods associated with prevention science research.

PEOPLE

Faculty: Professors Carter (Rehabilitation Psychology and Special Education), Albers (Educational Psychology), Magnuson (Social Work), Riesch (Nursing), Sparks (Human Development and Family Studies)

ELECTRICAL AND COMPUTER ENGINEERING

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Electrical Engineering, Doctoral Minor (p. 475)
- Electrical Engineering, M.S. (p. 475)
- Electrical Engineering, Ph.D. (p. 487)

PEOPLE

Faculty: Professors Booske (chair), Gubner (vice-chair), Anderson, Barmish, Behdad, Boston, Botez, Davoodi, DeMarco, Farrell, Fawaz, Hagness, Hitchon, Hu, Jahns, Jiang, Jog, Kats, Kim, Knezevic, Lesieutre, Lessard, Li, Lipasti, Ludois, Ma, Mawst, Milenkovic, Nowak, Papailiopoulos, Ramanathan, Roald, San Miguel, Sayeed, Sethares, Severson, Shohet, van der Weide, Van Veen, Velten, Venkataramanan, Wendt, Willett, Yu

ELECTRICAL ENGINEERING, DOCTORAL MINOR

REQUIREMENTS

Ph.D. students from other UW–Madison graduate programs who wish to earn a minor degree in Electrical Engineering are required to complete a minimum of 9 credits of Electrical and Computer Engineering courses (http://guide.wisc.edu/courses/e_c_e) numbered 400 or above, approved by the E C E department, with grades of B or better. In addition, at least three of these 9 credits must be earned in courses numbered 700 or above. At most, one course cross-listed with the student's major program may be counted toward the minor credits provided such a course is taught by E C E faculty. Moreover, such a course cannot be applied to satisfy the student's major requirements. No examinations are required other than those given in the courses.

PEOPLE

Faculty: Professors Booske (chair), Gubner (vice-chair), Anderson, Barmish, Behdad, Boston, Botez, Davoodi, DeMarco, Farrell, Fawaz,

Hagness, Hitchon, Hu, Jahns, Jiang, Jog, Kats, Kim, Knezevic, Lesieutre, Lessard, Li, Lipasti, Ludois, Ma, Mawst, Milenkovic, Nowak, Papailiopoulos, Ramanathan, Roald, San Miguel, Sayeed, Sethares, Severson, Shohet, van der Weide, Van Veen, Velten, Venkataramanan, Wendt, Willett, Yu

ELECTRICAL ENGINEERING, M.S.

The E C E department offers graduate studies leading to a master of science degree. The master's program emphasizes the enhancement of professional knowledge and research techniques.

The typical graduate course load is 8 to 12 credits per semester, which can include research credits. We encourage degree candidates to select major professors and begin research work soon after enrolling, preferably by the beginning of their second semester in residence.

The M.S. degree in Electrical Engineering is awarded for successful completion of any one of three tracks designated by the E C E department. These tracks for an M.S. degree in Electrical Engineering include preparing a thesis, completing a project report, or a course-only option.

In order to be awarded an M.S. degree in Electrical Engineering, students must adhere to department and Graduate School policies and requirements. Please refer to the Graduate Student Handbook for more information.

There are two named options offered in the Electrical Engineering M.S. in the Department of Electrical and Computer Engineering: Power Engineering (p. 480) (an online, off-campus program) and Signal Processing and Machine Learning (p. 483) (a 12-month accelerated program that is on campus).

ADMISSIONS

An applicant must have a bachelor's degree from a regionally accredited U.S. institution or a comparable degree from an international institution. International applicants can find specific information for their country on the Graduate School Admission Requirements (<http://grad.wisc.edu/admissions/requirements>) page. The department welcomes applications from scientific, engineering, and mathematical disciplines other than E C E.

Admission Requirements:

- A grade point average of 3.0 (4.0 basis) is the minimum requirement for admission consideration. Applicants from an international institution must demonstrate strong academic achievement comparable to a 3.0. The Graduate School will use your institution's grading scale. Please do not convert your grades to a 4.0 scale.
- A submitted online application is required, consisting of:
 - your resume/CV;
 - a statement of purpose (see the guidelines (<https://grad.wisc.edu/apply/prepare>) provided by the Graduate School);
 - an uploaded transcript; and
 - payment of the one-time application fee of \$75.
 - This fee is non-refundable. It can be paid by credit card (MasterCard or Visa) or debit/ATM card. By Wisconsin state law, this fee can only be waived or deferred through

the conditions outlined by the Graduate School. (<https://grad.wisc.edu/apply/fee-grant>)

- Applicants must also obtain three letters of recommendation for consideration.
- Graduate Record Exam (GRE) general test scores are required for all applicants. Please send your scores electronically via ETS to institution code 1846. UW undergraduate students, specifically those who have a B.S. degree in Electrical Engineering or Computer Engineering, may be exempt from the GRE requirement. Please inquire with the E C E Graduate Admissions Team at ecegradadmission@engr.wisc.edu. (ecegradadmission@engr.wisc.edu)
- Applicants whose native language is not English must provide an English proficiency score. There are a few situations in which applicants are exempt from this requirement. Please see the Graduate School's English Proficiency Requirement (<https://grad.wisc.edu/apply/requirements>), which also lists the exemptions and required method of delivery.

The application deadline for Fall is **December 15** of the year prior to starting the program (ex: December 15, 2018 for Fall 2019). There are no Spring or Summer admission cycles. Only completed applications, including supportive materials, by the application deadline are guaranteed consideration. Please note that it is highly advised to take the GRE and TOEFL/IELTS tests well in advance of the deadline to ensure time for receiving and processing the scores.

If you have any admissions questions, please contact the E C E Graduate Admissions team at ecegradadmission@engr.wisc.edu.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

FINANCIAL SUPPORT

Research Assistantships

Students should contact professors in their area of interest. Professors decide whom they will appoint on their research grants.

Teaching Assistantships

Current graduate students may apply to teaching assistantship or hourly grader positions at the E C E TA/grader portal: <https://www.aims.wisc.edu/tagrader/Default.aspx> Non-native English speakers are required to pass the SPEAK Test <http://www.english.wisc.edu/esl/speak.htm> at the English as a Second Language Program on campus.

Students wishing to take the SPEAK Test should contact the E C E TA Coordinator via e-mail to register for the exam.

Project Assistantships

There are a few project assistant opportunities on campus. Announcements of openings are posted on TA/PA bulletin boards in Engineering Hall and on the UW Job Center Web Page. <http://www.jobcenter.wisc.edu/>

Fellowships

Information concerning fellowships is sent to graduate students through email from the department, faculty, and/or the Graduate School.

Grader Positions

Current graduate students may apply to teaching assistantship or hourly grader positions at the E C E TA/grader portal: <https://www.aims.wisc.edu/tagrader/Default.aspx>.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum 30 credits
Credit Requirement

Minimum Residence Credit Requirement	16 credits
Minimum Graduate Coursework Requirement	Half of degree coursework must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.
Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	<ol style="list-style-type: none"> 1. A grade of B or better in any graduate course is acceptable. A grade of S in E C E 790 Master's Research or Thesis, E C E 890 Pre-Dissertator's Research and E C E 990 Research or Thesis is acceptable. 2. A grade of BC in an E C E course is acceptable, provided the total cumulative GPA for graduate E C E courses is greater than or equal to 3.00. 3. A grade of C or lower in an E C E course is not acceptable. 4. A grade of BC or lower in an independent study course (E C E 699 Advanced Independent Study or E C E 999 Advanced Independent Study) or a grade of U in Research or Thesis (E C E 790, E C E 890 or E C E 990) is not acceptable. 5. A grade of BC or C in a non-E C E course is acceptable only if approved by the Graduate Committee. 6. If students are unable to complete coursework by the end of the term, an instructor may enter a temporary grade of I for incomplete. If students have not resolved all Incompletes by the end of the next fall or spring term in which they are enrolled, they are considered in bad standing by the Graduate School; however, the instructor may impose an earlier deadline. If not resolved within this time period, the grade is considered unsatisfactory and will remain an "I" unless changed to a final grade by the instructor. An unresolved I grade lapses to a grade of PI after five years. Students may be placed on probation or suspended from the Graduate School for failing to complete the work and receive a final grade in a timely fashion. Outstanding Incompletes must be resolved before a degree is granted.
Assessments and Examinations	A thesis, a project, or a specified course sequence must be completed, depending upon which degree plan the student follows.
Language Requirements	Non-native speakers of English who enroll in the M.S. program must take the ESLAT test on arrival at the university and then take any recommended courses based on the exam results. In addition, if a student's advisor believes that his or her technical writing ability needs improvement, the student may be required to undertake remedial work.

REQUIRED COURSES

Students may select one of three tracks for completing the degree: Thesis, Project, and Course. Students in the Thesis and Project tracks have the same required coursework:

- At least 15 must be in E C E Courses 400-level or higher, and at least 15 must be in courses numbered 700 or higher. Only graduate courses, namely those courses listed or approved for listing in the

Graduate School Bulletin are applicable for graduate credit, with the exceptions that 300-level E C E courses and E C E 702 are not acceptable. E C E 890 and E C E 990 are not applicable to the M.S. degree.

- Of the 30 credits, a minimum of 3 and a maximum of 9 credits must be in E C E 790. These E C E 790 credits are applicable toward both the 15 E C E credit requirement and the 700-level requirement. The combined number of credits in E C E 790, E C E 699, and E C E 999 applied toward the degree may not exceed 9.

Students in the Course track have the following required coursework:

- At least 15 credits must be in E C E courses 400-level or higher, at least 15 credits must be in courses numbered 700 or higher, AND at least 9 credits must be in E C E courses numbered 700 or higher.
- At most, 6 credits may be in E C E 699 or E C E 999. E C E 702, E C E 790, E C E 890, and E C E 990 are not counted as part of these 30 credits.

Electrical and Computer Engineering courses:

Code	Title	Credits
E C E 401	Electro-Acoustical Engineering	3
E C E 411	Introduction to Electric Drive Systems	3
E C E 412	Power Electronic Circuits	3
E C E 420	Electromagnetic Wave Transmission	3
E C E 427	Electric Power Systems	3
E C E 431	Digital Signal Processing	3
E C E 432	Digital Signal Processing Laboratory	3
E C E 434	Photonics	3
E C E/COMP SCI/ MATH 435	Introduction to Cryptography	3
E C E 436	Communication Systems I	3
E C E 437	Communication Systems II	3
E C E/M E 439	Introduction to Robotics	3
E C E 440	Electromagnetic Fields and Waves	3
E C E 445	Semiconductor Physics and Devices	3
E C E 447	Applied Communications Systems	3
E C E 453	Embedded Microprocessor System Design	4
E C E 454	Mobile Computing Laboratory	4
E C E/B M E 461	Mathematical and Computer Modeling of Physiological Systems	3
E C E/B M E 462	Medical Instrumentation	3
E C E/B M E 463	Computers in Medicine	3
E C E 466	Electronics of Solids	3
E C E 489	Honors in Research	1-3
E C E 491	Senior Design Project	3
E C E 504	Electric Machine & Drive System Laboratory	2-3
E C E/COMP SCI 506	Software Engineering	3
E C E 511	Theory and Control of Synchronous Machines	3
E C E 512	Power Electronics Laboratory	3

E C E/COMP SCI/ I S Y E 524	Introduction to Optimization	3	E C E 713	Electromagnetic Design of AC Machines	3
E C E/N E/ PHYSICS 525	Introduction to Plasmas	3	E C E 714	Utility Application of Power Electronics	3
E C E/N E/ PHYSICS 527	Plasma Confinement and Heating	3	E C E 717	Linear Systems	3
E C E/N E 528	Plasma Processing and Technology	3	E C E 719	Optimal Systems	3
E C E/COMP SCI/ M E 532	Matrix Methods in Machine Learning	3	E C E 723	On-Line Control of Power Systems	3
E C E/COMP SCI 533	Image Processing	3	E C E/N E/ PHYSICS 724	Waves and Instabilities in Plasmas	3
E C E 536	Integrated Optics and Optoelectronics	3	E C E/N E/ PHYSICS 725	Plasma Kinetic Theory and Radiation Processes	3
E C E 537	Communication Networks	3	E C E/N E/ PHYSICS 726	Plasma Magnetohydrodynamics	3
E C E/COMP SCI/ M E 539	Introduction to Artificial Neural Network and Fuzzy Systems	3	E C E 729	Theory of Information Processing and Transmission	3
E C E 541	Analog MOS Integrated Circuit Design	3	E C E 730	Modern Probability Theory and Stochastic Processes	3
E C E 542	Introduction to Microelectromechanical Systems	3	E C E 731	Advanced Power System Analysis	3
E C E/CBE/ M S & E 544	Processing of Electronic Materials	3	E C E 734	VLSI Array Structures for Digital Signal Processing	3
E C E 545	Advanced Microwave Measurements for Communications	3	E C E 735	Signal Synthesis and Recovery Techniques	3
E C E/PHYSICS 546	Lasers	2-3	E C E 736	Wireless Communications	3
E C E 547	Advanced Communications Circuit Design	3	E C E 738	Advanced Digital Image Processing	3
E C E 548	Integrated Circuit Design	3	E C E/M E 739	Advanced Robotics	3
E C E 549	Integrated Circuit Fabrication Laboratory	3	E C E 740	Electromagnetic Theory	3
E C E 551	Digital System Design and Synthesis	3	E C E 741	Semiconductor Diode Lasers and other Optoelectronic Devices	3
E C E/COMP SCI 552	Introduction to Computer Architecture	3	E C E 742	Computational Methods in Electromagnetics	3
E C E 553	Testing and Testable Design of Digital Systems	3	E C E 743	High-Power Diode Lasers and Amplifiers	3
E C E 554	Digital Engineering Laboratory	4	E C E 744	Theory of Microwave Circuits and Devices	3
E C E 555	Digital Circuits and Components	3	E C E 745	Solid State Electronics	3
E C E 556	Design Automation of Digital Systems	3	E C E/PHYSICS 746	Quantum Electronics	3
E C E/M E 577	Automatic Controls Laboratory	4	E C E/PHYSICS 748	Linear Waves	3
E C E 600	Seminar in Electrical and Computer Engineering	0	E C E/N E/ PHYSICS 749	Coherent Generation and Particle Beams	3
E C E 601	Special Topics in Electrical and Computer Engineering	1-4	E C E/COMP SCI 750	Real-time Computing Systems	3
E C E 610	Seminar in Electrical and Computer Engineering	1	E C E 751	Embedded Computing Systems	3
E C E 611	Introduction to Doctoral Research in Electrical & Computer Engineering	2	E C E/COMP SCI 752	Advanced Computer Architecture I	3
E C E 630	All of Signal Processing	3	E C E 753	Fault-Tolerant Computing	3
E C E/MATH 641	Introduction to Error-Correcting Codes	3	E C E/COMP SCI 755	VLSI Systems Design	3
E C E 699	Advanced Independent Study	1-6	E C E/COMP SCI 756	Computer-Aided Design for VLSI	3
E C E/COMP SCI 707	Mobile and Wireless Networking	3	E C E/COMP SCI 757	Advanced Computer Architecture II	3
E C E 711	Dynamics and Control of AC Drives	3	E C E/COMP SCI/ E M A/E P/M E 759	High Performance Computing for Applications in Engineering	3
E C E 712	Solid State Power Conversion	3	E C E/COMP SCI 761	Mathematical Foundations of Machine Learning	3
			E C E/B M E 762	Biomedical Instrumentation	3
			E C E/B M E 763	Projects in Computers in Medicine	3
			E C E/CBE/ MATH 777	Nonlinear Dynamics, Bifurcations and Chaos	3
			E C E 790	Master's Research or Thesis	1-9

E C E 817	Nonlinear Systems	3
E C E 821	Optimal Control and Variational Methods	3
E C E 830	Estimation and Decision Theory	3
E C E 841	Electromagnetic Radiation and Transmission	3
E C E/MATH 842	Topics in Applied Algebra	3
E C E 845	Transport in Semiconductor Devices	3
E C E/PHYSICS 848	Nonlinear Waves	3
E C E/COMP SCI/STAT 861	Theoretical Foundations of Machine Learning	3
E C E 901	Special Topics in Electrical and Computer Engineering	1-3
E C E/N E/PHYSICS 922	Seminar in Plasma Physics	1
E C E 999	Advanced Independent Study	1-3

E C E 610 Seminar in Electrical and Computer Engineering seminar requirement

All on-campus E C E graduate students must register for E C E 610 during their first semester of graduate studies. MS-degree seeking students must take 1 credit of E C E 610 in the Fall semester of which they are entering the program. Students with a course conflict with E C E 610 can defer taking the seminar by one year provided their faculty advisor agrees.

The purpose of E C E 610 is to expose students in their first semester of graduate school to various areas within E C E and to areas outside of E C E to which E C E has or could have connections, e.g., biotechnology, physics, mathematics, business, software. Electrical and Computer Engineering is very interdisciplinary in nature, and so it is important that students be aware of state-of-the-art research in areas other than their own.

Thesis Track ¹

The **thesis track** consists of 30 semester hours of graduate credits and approval of a master's thesis based on independent research. Of these 30 credits, at least 15 must be in E C E courses 400 level or higher, and at least 15 must be in courses numbered 700 or higher. Only graduate courses, namely those courses listed or approved for listing in the Graduate School Bulletin are applicable for graduate credit, with the exceptions that 300-level E C E courses and E C E 702 are not acceptable. E C E 890 and E C E 990 are not applicable to the M.S. degree.

Of the 30 credits, a minimum of 3 and a maximum of 9 credits must be in E C E 790 Master's Research or Thesis. These E C E 790 credits are applicable toward both the 15 E C E credit requirement and the 700-level requirement. The combined number of credits in E C E 790, E C E 699, and E C E 999 Advanced Independent Study applied toward the degree may not exceed 9.

Project Track ¹

The **project track** consists of 30 semester hours of graduate credits and approval of a limited scope project with a prepared report. Of these 30 credits, at least 15 must be in E C E courses 400 level or higher, and at least 15 must be in courses numbered 700 or higher. Only graduate courses, namely those courses listed or approved for listing in the Graduate School Bulletin are applicable for graduate credit, with the

exceptions that 300-level E C E courses and E C E 702 are not acceptable. E C E 890 and E C E 990 are not applicable to the M.S. degree.

Of the 30 credits, a minimum of 3 and a maximum of 9 credits must be in E C E 790 Master's Research or Thesis. These E C E 790 credits are applicable toward both the 15 E C E credit requirement and the 700-level requirement. The combined number of credits in E C E 790, E C E 699, and E C E 999 Advanced Independent Study applied toward the degree may not exceed 9.

Course Track ¹

The **course track** consists of 30 semester hours of coursework. Of these, at least 15 credits must be in E C E courses 400 level or higher, at least 15 credits must be in courses number 700 or higher, AND at least 9 credits must be in E C E courses numbered 700 or higher. At most, 6 credits may be in E C E 699 or E C E 999. E C E 702, E C E 790, E C E 890 and E C E 990 are not counted as part of these 30 credits. No thesis or project is required.

Footnotes

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

NAMED OPTIONS (SUB-MAJORS)

A named option is a formally documented sub-major within an academic major program. Named options appear on the transcript with degree conferral.

- Electrical Engineering: Power Engineering, M.S. (p. 480)
- Electrical Engineering: Signal Processing and Machine Learning, M.S. (p. 483)

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (https://docs.google.com/document/d/1vzDpUN5CGy2Rdl7SnD2ZAsG7-b_8I7QaXOLGfSToHnY/edit) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count graduate coursework from other institutions toward the minimum graduate degree credit requirement and the minimum graduate coursework (50%) requirement. No credits from other institutions can be counted toward the minimum graduate residence credit requirement. Coursework earned

five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

With program approval, up to 7 credits numbered 400 or above can be counted toward the minimum graduate degree credit requirement. Up to 7 credits of E C E courses numbered 700 or above can be counted toward the minimum graduate coursework (50%) requirement. No credits can be counted toward the minimum graduate residence credit requirement.

UW–Madison University Special

With program approval, students are allowed to count up to 9 credits of coursework numbered 400 or above taken as a UW–Madison University Special student toward the minimum graduate residence credit requirement, and the minimum graduate degree credit requirement. Courses numbered 700 or above taken as a UW–Madison Special student toward the minimum graduate coursework (50%) requirement.

Coursework earned five or more years prior to admission is not allowed to satisfy requirements.

PROBATION

Students must be in good academic standing with the Graduate School, their program, and their advisor. The Graduate School regularly reviews the record of any student who received grades of BC, C, D, F, or I in graduate-level courses (300 or above), or grades of U in research and thesis. This review could result in academic probation with a hold on future enrollment, and the student may be suspended from graduate studies.

The Graduate School may also put students on probation for incompletes not cleared within one term. All incomplete grades must be resolved before a degree is granted.

The status of a student can be one of three options:

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

A semester GPA below 3.0 will result in the student being placed on academic probation. If a semester GPA of 3.0 is not attained during the subsequent semester of full time) the student may be dismissed from the program or allowed to continue for 1 additional semester based on advisor appeal to the Graduate School.

ADVISOR / COMMITTEE

New students must declare an advisor by the end of the second week of classes in the first semester.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their

absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Funding is not guaranteed and applicants should be prepared to fund their degree. The department awards a small number of research assistantships, teaching assistantships, project assistantships, and fellowships each year. All applications are automatically considered for department funding. Students in the online Power Engineering program are not permitted to accept assistantships.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Demonstrate a strong understanding of mathematical, scientific, and engineering principles in the field.
2. Demonstrate an ability to formulate, analyze, and solve advanced engineering problems.
3. Demonstrate creative, independent problem solving skills.
4. Apply the latest scientific and technological advancements, advanced techniques, and modern engineering tools to these problems.
5. Recognize and apply principles of ethical and professional conduct.

PEOPLE

Faculty: Professors Booske (chair), Gubner (vice-chair), Anderson, Barmish, Behdad, Boston, Botez, Davoodi, DeMarco, Farrell, Fawaz, Hagness, Hitchon, Hu, Jahns, Jiang, Jog, Kats, Kim, Knezevic, Lesieutre, Lessard, Li, Lipasti, Ludois, Ma, Mawst, Milenkovic, Nowak, Papailiopoulos, Ramanathan, Roald, San Miguel, Sayeed, Sethares, Severson, Shohet, van der Weide, Van Veen, Velten, Venkataramanan, Wendt, Willett, Yu

ELECTRICAL ENGINEERING: POWER ENGINEERING, M.S.

This is a named option in the Electrical Engineering M.S. (p. 475)

The Master of Science Electrical Engineering: Power Engineering program will prepare you for leading-edge positions in industry in the areas of electric power, power electronics, motor drives, and electric machines.

UW-Madison's Power Engineering master's degree provides graduate students applicable and theoretical knowledge in power electronics,

including alternative energy, through research and study of technological and conceptual innovations in electrical and computer engineering.

The education you receive at UW-Madison is directly applicable to a career in industry and is suitable for a new or recent graduate, as well as experienced professionals who seek the necessary (re)training to change or advance their careers.

UW-Madison's Department of Electrical and Computer Engineering is recognized for excellence in research, instruction and service to the profession. It ranks among the top electrical and computer engineering departments in national surveys, consistently producing talented graduates whose skills are highly respected throughout the nation and around the world.

The Wisconsin Electric Machines and Power Electronics Consortium (WEMPEC) (<https://wempec.wisc.edu>) is a UW-Madison technology focus center sponsored by companies holding an interest in electric machines and power electronics. With a mission to provide education, research and service, WEMPEC is a model program demonstrating strong interaction between university and industry.

UW-Madison's online engineering graduate programs are world-class degree and consistently ranked in the Top 10 online engineering master's programs by *U.S. News & World Report*.

Admittance into the Master of Science: Electrical Engineering program requires completion of the Capstone Certificate in Power Conversion and Control. (<http://guide.wisc.edu/nondegree/capstone/power-conversion-control-capstone-certificate>)

ADMISSIONS

ADMISSIONS REQUIREMENTS

- Completion of the Capstone Certificate in Power Conversion and Control (<http://guide.wisc.edu/nondegree/capstone/power-conversion-control-capstone-certificate>) with a GPA of 3.3
- A B.S. degree from a program accredited by ABET or the equivalent.* An electrical engineering major is preferred.
- A minimum undergraduate grade point average (GPA) of 3.00 on the equivalent of the last 60 semester hours (approximately two years of work) or a master's degree with a minimum cumulative GPA of 3.00. Applicants from an international institution must have a strong academic performance comparable to a 3.00 for an undergraduate or master's degree. All GPAs are based on a 4.00 scale. We use your institution's grading scale; do not convert your grades to a 4.00 scale.
- Applicants whose native language is not English must provide scores from the Test of English as a Foreign Language (TOEFL). The minimum acceptable score on the TOEFL is 580 on the written version, 243 on the computer version, or 92 on the Internet version.
- International applicants must have a degree comparable to an approved U.S. bachelor's degree.

We do **not** require applicants to submit scores from the Graduate Record Examination (GRE).

ADMISSIONS DEADLINES

Applications are accepted for admission during the fall and spring terms.

Fall deadline is June 1.

Spring deadline is November 1.

ADMISSIONS PROCESS

Application steps are listed on the program's admissions webpage (<https://epd.wisc.edu/online-degree/electrical-engineering-power-engineering/#/apply>).

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Students in the online Electrical Engineering: Power Engineering program are not permitted to accept tuition-waiving assistantships or seek dual or double degrees.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
No	No	Yes	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely

online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Graduate Requirement 30 credits

Minimum Residence Requirement 16 credits

Minimum Graduate Coursework Requirement Half of degree coursework must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements

1. A grade of B or better in any graduate course is acceptable. A grade of S in E C E 790 Master's Research or Thesis is acceptable.
2. A grade of BC in an E C E course is acceptable, provided the total cumulative GPA for graduate E C E courses is greater than or equal to 3.00.
3. A grade of C or lower in an E C E course is not acceptable.
4. A grade of BC or lower in an independent study course (E C E 699 Advanced Independent Study or E C E 999 Advanced Independent Study) or a grade of U in Research or Thesis (E C E 790) is not acceptable.
5. A grade of BC or C in a non-E C E course is acceptable only if approved by the Graduate Committee.
6. If students are unable to complete coursework by the end of the term, an instructor may enter a temporary grade of I for incomplete. If students have not resolved all Incompletes by the end of the next fall or spring term in which they are enrolled, they are considered in bad standing by the Graduate School; however, the instructor may impose an earlier deadline. If not resolved within this time period, the grade is considered unsatisfactory and will remain an "I" unless changed to a final grade by the instructor. An unresolved I grade lapses to a grade of PI after five years. Students may be placed on probation or suspended from the Graduate School for failing to complete the work and receive a final grade in a timely fashion. Outstanding Incompletes must be resolved before a degree is granted.

Assessments and Examinations A thesis, a project, or a specified course sequence must be completed, depending upon which degree plan the student follows.

Language Requirements n/a

REQUIRED COURSES

Students must complete E C E 600, a professional development assignment. Students must watch or attend 22 hours of lectures about

engineering topics, and submit a summary report. Appropriate video lectures are available online for distance students to watch.

Students must take one three-week, on-campus summer laboratory in Madison, Wisconsin. Students may choose from E C E 504 Electric Machine & Drive System Laboratory or E C E 512 Power Electronics Laboratory, which are offered in alternate summers.

Code	Title	Credits
<i>Choose 30 credits from the following courses:</i>		
E C E 411	Introduction to Electric Drive Systems (completed during Capstone)	
E C E 412	Power Electronic Circuits (completed during Capstone)	
E C E 427	Electric Power Systems	
M E 446	Automatic Controls (completed during Capstone)	
M E 447	Computer Control of Machines and Processes	
E C E 504	Electric Machine & Drive System Laboratory	
E C E 511	Theory and Control of Synchronous Machines	
E C E 512	Power Electronics Laboratory	
M E/E C E 577	Automatic Controls Laboratory	
E C E 699	Advanced Independent Study	
E C E 711	Dynamics and Control of AC Drives	
E C E 712	Solid State Power Conversion	
E C E 713	Electromagnetic Design of AC Machines	
E C E 714	Utility Application of Power Electronics	
E C E/M E 739	Advanced Robotics	
M E 746	Dynamics of Controlled Systems	
M E 747	Advanced Computer Control of Machines and Processes	
E C E 790	Master's Research or Thesis	

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

NAMED OPTION-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (https://docs.google.com/document/d/1vzDpUN5CGy2RdI7SnD2ZAsG7-b_8I7QaXOLGfStoHnY/edit?usp=sharing) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count graduate coursework from other institutions toward the minimum graduate degree credit requirement and the minimum graduate coursework (50%) requirement. No credits from other institutions can be counted toward the minimum graduate residence credit requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

With program approval, up to 7 credits numbered 400 or above can be counted toward the minimum graduate degree credit requirement. Up to 7 credits of E C E courses numbered 700 or above can be counted toward the minimum graduate coursework (50%) requirement. No credits can be counted toward the minimum graduate residence credit requirement.

UW–Madison University Special

With program approval, students are allowed to count up to 9 credits of coursework numbered 400 or above taken as a UW–Madison University Special student toward the minimum graduate residence credit requirement, and the minimum graduate degree credit requirement. Courses numbered 700 or above taken as a UW–Madison Special student toward the minimum graduate coursework (50%) requirement. Coursework earned five or more years prior to admission is not allowed to satisfy requirements.

PROBATION

Students must be in good academic standing with the Graduate School, their program, and their advisor. The Graduate School regularly reviews the record of any student who received grades of BC, C, D, F, or I in graduate-level courses (300 or above), or grades of U in research and thesis. This review could result in academic probation with a hold on future enrollment, and the student may be suspended from graduate studies.

The Graduate School may also put students on probation for incompletes not cleared within one term. All incomplete grades must be resolved before a degree is granted.

The status of a student can be one of three options:

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

A semester GPA below 3.0 will result in the student being placed on academic probation. If a semester GPA of 3.0 is not attained during the subsequent semester of full time) the student may be dismissed from the program or allowed to continue for 1 additional semester based on advisor appeal to the Graduate School.

ADVISOR / COMMITTEE

An academic advisor will be assigned to newly-admitted students. Students who want to pursue research must secure a research advisor who matches their research area and agrees to supervise their research. A research advisor is not guaranteed.

CREDITS PER TERM ALLOWED

15 credits (most students take 3 credits per term)

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Students in the online Power Engineering program are not permitted to accept assistantships.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PEOPLE

Faculty: Professors Booske (chair), Gubner (vice-chair), Anderson, Barmish, Behdad, Boston, Botez, Davoodi, DeMarco, Farrell, Fawaz, Hagness, Hitchon, Hu, Jahns, Jiang, Jog, Kats, Kim, Knezevic, Lesieutre, Lessard, Li, Lipasti, Ludois, Ma, Mawst, Milenkovic, Nowak, Papailiopoulos, Ramanathan, Roald, San Miguel, Sayeed, Sethares, Severson, Shohet, van der Weide, Van Veen, Velten, Venkataramanan, Wendt, Willett, Yu

ELECTRICAL ENGINEERING: SIGNAL PROCESSING AND MACHINE LEARNING, M.S.

This is a named option in the Electrical Engineering M.S. (p. 475)

The Signal Processing and Machine Learning (MLSP) program is intended for students looking for a jump-start on a career in data science, with a passion for quantitative thinking, practical problem solving, computer programming, and applications to a variety of domains. It is designed for motivated students ready for the rigors of a 12-month accelerated program.

The required coursework draws upon both classical and modern methods in MLSP, and is taught by faculty conducting cutting-edge MLSP research. Successful students will have some experience with linear algebra, statistics, and computer programming. The combined focus on the mathematical foundations of data science and their practical

application to real-world problems will prepare graduates to be ready to immediately contribute in a variety of different MLSP jobs.

The focus of the MLSP program differs from the standard research-based MS program by the replacing the independent research that leads to a written thesis with an accelerated coursework plan, the summer practicum, and a focus on courses in the MLSP area. If you are interested in research and advanced concept development, you are better served pursuing a research-focused MS program. If you want to complete your degree in 12 months and be part of data science in the work force, then the MLSP program is right for you.

ADMISSIONS

An applicant must have a bachelor's degree from a regionally accredited U.S. institution or a comparable degree from an international institution. International applicants can find specific information for their country on the Graduate School Admission Requirements (<http://grad.wisc.edu/admissions/requirements>) page. The department welcomes applications from scientific, engineering, and mathematical disciplines other than E C E.

Admission Requirements:

- It is preferred that applicants have a B.S. degree in Electrical and Computer Engineering or in a related area.
- A grade point average of 3.0 (4.0 basis) is the minimum requirement for admission consideration. Applicants from an international institution must demonstrate strong academic achievement comparable to a 3.0. The Graduate School will use your institution's grading scale. Please do not convert your grades to a 4.0 scale.
- A submitted online application is required, consisting of:
 - your resume/CV;
 - a statement of purpose (see the guidelines (<https://grad.wisc.edu/apply/prepare>) provided by the Graduate School);
 - an uploaded transcript; and
 - payment of the one-time application fee of \$75.
 - This fee is non-refundable. It can be paid by credit card (MasterCard or Visa) or debit/ATM card. By Wisconsin state law, this fee can only be waived or deferred through the conditions outlined by the Graduate School (<https://grad.wisc.edu/apply/fee-grant>).
- Applicants must also obtain three letters of recommendation for consideration.
- Graduate Record Exam (GRE) general test scores are required for all applicants. Please send your scores electronically via ETS to institution code 1846. UW undergraduate students, specifically those who have a B.S. degree in Electrical Engineering or Computer Engineering, may be exempt from the GRE requirement. Please inquire with the E C E Graduate Admissions Team at ecegradadmission@engr.wisc.edu (ecegradadmission@engr.wisc.edu).
- Applicants whose native language is not English must provide an English proficiency score. There are a few situations in which applicants are exempt from this requirement. Please see the Graduate School's English Proficiency Requirement (<https://grad.wisc.edu/apply/requirements>), which also lists the exemptions and required method of delivery.

The application deadline for Fall is **March 15** of the year the student wishes to start the program (e.g., March 15, 2019 for Fall 2019).

There are no Spring or Summer admission cycles. Only completed applications, including supportive materials, by the application deadline are guaranteed consideration. Please note that it is highly advised to take the GRE and TOEFL/IELTS tests well in advance of the deadline to ensure time for receiving and processing the scores.

- If you have any admissions questions, please contact the E C E Graduate Admissions team at ecegradadmission@engr.wisc.edu.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

Students in the Signal Processing and Machine Learning program are not permitted to accept tuition-waiving assistantships or seek double or dual degrees.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	Yes

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely

online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum 30 credits

Credit Requirement

Minimum 16 credits

Residence

Credit Requirement

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements

1. A grade of B or better in any graduate course is acceptable.
2. A grade of BC in an E C E course is acceptable, provided the total cumulative GPA for graduate E C E courses is greater than or equal to 3.00.
3. A grade of BC or C in a non-E C E course is acceptable only if approved by the Graduate Committee.

Assessments and Examinations A specified course sequence must be completed.

Language Requirements Non-native speakers of English who enroll in the M.S. program must take the ESLAT test on arrival at the university and then take any recommended courses based on the exam results. In addition, if a student's advisor believes that his or her technical writing ability needs improvement, the student may be required to undertake remedial work.

REQUIRED COURSES

Fall Semester (14 credits)—choose at the minimum four courses from the list below if wishing to graduate in one year.

Code	Title	Credits
E C E 431	Digital Signal Processing	3
E C E 436	Communication Systems I	3
E C E/COMP SCI/ I S Y E 524	Introduction to Optimization	3
E C E/COMP SCI/ M E 532	Matrix Methods in Machine Learning	3
E C E/COMP SCI 533	Image Processing	3
E C E/COMP SCI/ M E 539	Introduction to Artificial Neural Network and Fuzzy Systems	3
E C E 717	Linear Systems	3
E C E 729	Theory of Information Processing and Transmission	3

E C E 730	Modern Probability Theory and Stochastic Processes	3
E C E/COMP SCI 761	Mathematical Foundations of Machine Learning	3
E C E 901	Special Topics in Electrical and Computer Engineering	1-3
E P D 611 or E P D 612	Engineering Economics and Management Technical Project Management	3

Spring Semester (13 credits)—choose at the minimum four courses from the list below if wishing to graduate in one year.

Code	Title	Credits
E C E 437	Communication Systems II	3
E C E/COMP SCI/ I S Y E 524	Introduction to Optimization	3
E C E 719	Optimal Systems	3
E C E 735	Signal Synthesis and Recovery Techniques	3
E C E 736	Wireless Communications	3
E C E 738	Advanced Digital Image Processing	3
E C E 830	Estimation and Decision Theory	3
E C E/COMP SCI/ STAT 861	Theoretical Foundations of Machine Learning	3
E C E 901	Special Topics in Electrical and Computer Engineering	1-3
E P D 617	Communicating Technical Information	3

Summer (3 credits)

Code	Title	Credits
E C E 699	Advanced Independent Study	3
E C E 702	Graduate Cooperative Education Program ¹	1-2

¹ Up to two credits of E C E 702 (Co-Op) may count towards this degree.

E C E 610 Seminar in Electrical and Computer Engineering requirement

All on-campus E C E graduate students must register for E C E 610 during their first semester of graduate studies. M.S.-degree-seeking students must take 1 credit of E C E 610 in the fall semester of which they are entering the program. Students with a course conflict with E C E 610 should discuss with their faculty advisor regarding an exception to the requirement.

The purpose of E C E 610 is to expose students in their first semester of graduate school to various areas within E C E and to areas outside of E C E to which E C E has or could have connections, e.g., biotechnology, physics, mathematics, business, software. Electrical and computer engineering is very interdisciplinary in nature, and so it is important that students be aware of state-of-the-art research in areas other than their own.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

NAMED OPTION-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (https://docs.google.com/document/d/1vzDpUN5CGy2Rdl7SnD2ZAsG7-b_8I7QaXOLGfSToHnY/edit?usp=sharing) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions ¹

With program approval, students may count graduate coursework from other institutions toward the minimum graduate degree credit requirement and the minimum graduate coursework (50%) requirement. No credits from other institutions may be counted toward the minimum graduate residence credit requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate ¹

With program approval, up to 6 credits from UW–Madison numbered 300 or above can be counted toward the minimum graduate degree credit requirement. Up to 7 credits of E C E courses numbered 700 or above can be counted toward the minimum graduate coursework (50%) requirement. No credits can be counted toward the minimum graduate residence credit requirement.

With program approval, students may count up to 7 credits of undergraduate coursework from a bachelor of science degree in Electrical Engineering, Computer Engineering, Electrical and Computer Engineering, Electrical Engineering and Computer Science, or Computer Science from an ABET-accredited program at other institutions (not UW–Madison) toward fulfillment of minimum degree requirements. Courses numbered 300 or above may be counted towards the minimum graduate degree credit requirement and courses numbered 700 or above may be counted towards the minimum graduate coursework (50%) requirement. No credits from other institutions can be counted toward the minimum graduate residence credit requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison University Special ¹

With program approval, students are allowed to count up to 9 credits of coursework numbered 400 or above taken as a UW–Madison University Special student toward the minimum graduate residence credit requirement, and the minimum graduate degree credit requirement. Courses numbered 700

or above taken as a UW–Madison Special student toward the minimum graduate coursework (50%) requirement. Coursework earned five or more years prior to admission is not allowed to satisfy requirements.

¹ The total of the credits from graduate work from other institutions, undergraduate work from other institutions, and UW–Madison undergraduate work cannot exceed 7.

PROBATION

Students must be in good academic standing with the Graduate School, their program, and their advisor. The Graduate School regularly reviews the record of any student who received grades of BC, C, D, F, or I in graduate-level courses (300 or above), or grades of U in research and thesis. This review could result in academic probation with a hold on future enrollment, and the student may be suspended from graduate studies.

The Graduate School may also put students on probation for incompletes not cleared within one term. All incomplete grades must be resolved before a degree is granted.

The status of a student can be one of three options:

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

A semester GPA below 3.0 will result in the student being placed on academic probation. If a semester GPA of 3.0 is not attained during the subsequent semester of full time) the student may be dismissed from the program or allowed to continue for one additional semester based on advisor appeal to the Graduate School.

ADVISOR / COMMITTEE

New students must declare a course plan approved by an advisor by the end of the second week of classes in the first semester.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

n/a

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PEOPLE

Faculty: Professors Booske (chair), Gubner (vice-chair), Anderson, Barmish, Behdad, Boston, Botez, Davoodi, DeMarco, Farrell, Fawaz, Hagness, Hitchon, Hu, Jahns, Jiang, Jog, Kats, Kim, Knezevic, Lesieutre, Lessard, Li, Lipasti, Ludois, Ma, Mawst, Milenkovic, Nowak, Papailiopoulos, Ramanathan, Roald, San Miguel, Sayeed, Sethares, Severson, Shohet, van der Weide, Van Veen, Velten, Venkataramanan, Wendt, Willett, Yu

ELECTRICAL ENGINEERING, PH.D.

The E C E department offers graduate studies leading to a doctor of philosophy degree. The doctorate is a research degree emphasizing creativity and original approaches to problem-solving in electrical and computer engineering.

A student who is admitted to the Ph.D. program must pass the Ph.D. Qualifier Examination (QII), usually in the fourth semester, and achieve Advanced Graduate Standing (AGS) by the E C E Department Graduate Committee. Students must satisfy the UW–Madison Graduate School (<http://www.wisc.edu/grad>) credit requirement, and pursue a major, secondary, and minor field of study in consultation with a faculty advisor.

The doctoral program involves a study phase with course requirements in the student's major area of study, describing the proposed dissertation research, and culminating in the presentation and oral defense of an original research thesis. Typical minor programs draw upon the expertise of mechanical engineering, computer sciences, math, and physics.

In order to be awarded a Ph.D. degree in Electrical Engineering, students must adhere to department and Graduate School policies and requirements. Please refer to the Graduate Student Handbook for more information.

There are opportunities for research at both M.S. and Ph.D. levels.

ADMISSIONS

An applicant must have a bachelor's degree from a regionally accredited U.S. institution or a comparable degree from an international institution. International applicants can find specific information for their country on the Graduate School Admission Requirements (<http://grad.wisc.edu/admissions/requirements>) page. The department welcomes applications from scientific, engineering, and mathematical disciplines other than E C E.

Admission Requirements:

- A grade point average of 3.0 (4.0 basis) is the minimum requirement for admission consideration. Applicants from an international institution must demonstrate strong academic achievement

comparable to a 3.0. The Graduate School will use your institution's grading scale. Please do not convert your grades to a 4.0 scale.

- A submitted online application is required, consisting of:
 - your resume/CV;
 - a statement of purpose (see the guidelines (<https://grad.wisc.edu/apply/prepare>) provided by the Graduate School);
 - an uploaded transcript; and
 - payment of the one-time application fee of \$75.
 - This fee is nonrefundable. It can be paid by credit card (MasterCard or Visa) or debit/ATM card. By Wisconsin state law, this fee can only be waived or deferred through the conditions outlined by the Graduate School (<https://grad.wisc.edu/apply/fee-grant>).
- Applicants must also obtain three letters of recommendation for consideration.
- Graduate Record Exam (GRE) general test scores are required for all applicants. Please send your scores electronically via ETS to institution code 1846. UW undergraduate students, specifically those who have a B.S. degree in electrical engineering or computer engineering, may be exempt from the GRE requirement. Please inquire with the E C E Graduate Admissions Team at ecegradadmission@engr.wisc.edu (ecegradadmission@engr.wisc.edu).
- Applicants whose native language is not English must provide an English proficiency score. There are a few situations in which applicants are exempt from this requirement. Please see the Graduate School's English Proficiency Requirement (<https://grad.wisc.edu/apply/requirements>), which also lists the exemptions and required method of delivery.

The application deadline for fall is **December 15** of the year prior to starting the program (example: December 15, 2018, for fall 2019). There are no spring or summer admission cycles. Only completed applications, including supportive materials, by the application deadline are guaranteed consideration. Please note that it is highly advised to take the GRE and TOEFL/IELTS tests well in advance of the deadline to ensure time for receiving and processing the scores.

If you have any admissions questions, please contact the E C E Graduate Admissions team at ecegradadmission@engr.wisc.edu.

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

FINANCIAL SUPPORT

Research Assistantships

Students should contact professors in their area of interest. Professors decide whom they will appoint on their research grants.

Teaching Assistantships

Current graduate students may apply to teaching assistantship or hourly grader positions at the E C E TA/grader portal (<https://apps.aims.wisc.edu/tagrader/default.aspx>). Non-native English speakers are required to pass the SPEAK Test (<https://esl.wisc.edu/ita-training/speak>) at the English as a Second Language Program on campus. Students wishing to take the SPEAK Test should contact the E C E TA Coordinator via email to register for the exam.

Project Assistantships

There are a few project assistant opportunities on campus. Announcements of openings are posted on TA/PA bulletin boards in Engineering Hall and on the UW Job Center website (<http://www.jobcenter.wisc.edu>).

Fellowships

Information concerning fellowships is sent to graduate students through email from the department, faculty, and/or the Graduate School.

Grader Positions

Current graduate students may apply to teaching assistantship or hourly grader positions at the E C E TA/grader portal (<https://www.aims.wisc.edu/tagrader/Default.aspx.html>).

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely

online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement	51 credits
Minimum Residence Credit Requirement	32 credits
Minimum Graduate Coursework Requirement	Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.
Overall Graduate GPA Requirement	3.00 GPA required.

Other Grade Requirements

1. A grade of B or better in any graduate course is acceptable. A grade of S in E C E 790 Master's Research or Thesis, E C E 890 Pre-Dissertator's Research and E C E 990 Research or Thesis is acceptable.
2. A grade of BC in an E C E course is acceptable, provided the total cumulative GPA for graduate E C E courses is greater than or equal to 3.00.
3. A grade of C or lower in an E C E course is not acceptable.
4. A grade of BC or lower in an independent study course (E C E 699 Advanced Independent Study or E C E 999 Advanced Independent Study) or a grade of U in Research or Thesis (E C E 790, E C E 890 or E C E 990) is not acceptable.
5. A grade of BC or C in a non-E C E course is acceptable only if approved by the Graduate Committee.
6. If students are unable to complete coursework by the end of the term, an instructor may enter a temporary grade of I for incomplete. If students have not resolved all Incompletes by the end of the next fall or spring term in which they are enrolled, they are considered in bad standing by the Graduate School; however, the instructor may impose an earlier deadline. If not resolved within this time period, the grade is considered unsatisfactory and will remain an "I" unless changed to a final grade by the instructor. An unresolved I grade lapses to a grade of PI after five years. Students may be placed on probation or suspended from the Graduate School for failing to complete the work and receive a final grade in a timely fashion. Outstanding Incompletes must be resolved before a degree is granted.

Assessments and Examinations As soon as a student has passed all the requirements for the Ph.D. degree (except completion of the dissertation), the student is classified as a Dissertator. Specifically, the student must:

1. Take the Ph.D. Qualifying Examination;
2. Be awarded Advanced Graduate Standing;
3. Have completed 32 graduate credits at UW-Madison;
4. Satisfy the Primary Area Course Requirement;
5. Satisfy the Secondary Area Course Requirement;
6. Satisfy the Minor Requirement;
7. Satisfy the English Competency Requirement;
8. Satisfy the E C E Seminar Requirements;
9. Pass the Preliminary Examination.

Language Requirements Non-native speakers of English who enroll in the Ph.D. program must take the ESLAT test on arrival at the university and then take any recommended courses based on the exam results. In addition, if a student's advisor believes that his or her technical writing ability needs improvement, the student may be required to undertake remedial work.

Doctoral Minor/Breadth Requirements All doctoral students are required to complete coursework in a primary area, a secondary area, and one or more minor areas. Students are expected to consult with their advisors concerning minor/breadth requirements.

REQUIRED COURSES

Students choose from one of eight graduate research areas for their Primary Area:

Automatic Control Systems ¹

Code	Title	Credits
E C E 717	Linear Systems	3
E C E 817	Nonlinear Systems	3
E C E 821	Optimal Control and Variational Methods	3

Select 6 credits from the following:

E C E 719	Optimal Systems
E C E/M E 739	Advanced Robotics
E C E/CBE/MATH 777	Nonlinear Dynamics, Bifurcations and Chaos
E C E 901	Special Topics in Electrical and Computer Engineering
MATH 521	Analysis I

Select 3 credits from the following:

E C E 730	Modern Probability Theory and Stochastic Processes
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¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Biomedical Engineering ¹

At least 12 credits of E C E courses, only 3 of which may be at the 600-level or below and at least 3 credits of coursework in the biological sciences at the 300 level or higher. The specific course plan must be approved by a committee of three E C E faculty from Biomedical Engineering area, which may include the advisor. Courses that are cross-listed with Electrical and Computer Engineering are not eligible

to satisfy the biological sciences requirement. Examples of suitable biological sciences courses include ANAT&PHY 335 Physiology, B M E/CBE 510 Introduction to Tissue Engineering, B M E/CBE 520 Stem Cell Bioengineering, ZOOLOGY/PSYCH 523 Neurobiology, ZOOLOGY 570 Cell Biology, and BIOCHEM 501 Introduction to Biochemistry.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Communications, Machine Learning, and Signal Processing ¹

Code	Title	Credits
MATH 521	Analysis I	3
Choose 9 credits from the following:		
E C E 729	Theory of Information Processing and Transmission	
E C E 730	Modern Probability Theory and Stochastic Processes	
E C E 734	VLSI Array Structures for Digital Signal Processing	
E C E 735	Signal Synthesis and Recovery Techniques	
E C E 736	Wireless Communications	
E C E 738	Advanced Digital Image Processing	
E C E/COMP SCI 761	Mathematical Foundations of Machine Learning	
E C E 830	Estimation and Decision Theory	
E C E/COMP SCI/STAT 861	Theoretical Foundations of Machine Learning	

Credits from E C E 901 Special Topics in Electrical and Computer Engineering can be applied toward the 9-credit requirement with advisor approval.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Computer Engineering ¹

Code	Title	Credits
At least 18 credits from the following list:		
E C E 453	Embedded Microprocessor System Design (Must take one of these.)	
or E C E 554	Digital Engineering Laboratory	
E C E 537	Communication Networks	
E C E 551	Digital System Design and Synthesis	
E C E/COMP SCI 552	Introduction to Computer Architecture (Must take this class.)	
E C E 553	Testing and Testable Design of Digital Systems	
E C E 555	Digital Circuits and Components	
E C E 556	Design Automation of Digital Systems	

Must include at least 2 courses from below:

E C E/ COMP SCI 707	Mobile and Wireless Networking
E C E/ COMP SCI 750	Real-time Computing Systems
E C E 751	Embedded Computing Systems
E C E/ COMP SCI 752	Advanced Computer Architecture I
E C E 753	Fault-Tolerant Computing
E C E/ COMP SCI 755	VLSI Systems Design
E C E/ COMP SCI 756	Computer-Aided Design for VLSI
E C E/ COMP SCI 757	Advanced Computer Architecture II
E C E 901	Special Topics in Electrical and Computer Engineering

A student may be exempted from up to six credits of this requirement by use of 1) equivalent courses taken as an undergraduate student; 2) equivalent courses taken as a graduate student elsewhere, or 3) other relevant courses not listed. Exemptions must be approved by the student's advisor. Courses used for exemption may not be used to satisfy other Ph.D. degree requirements such as the Secondary Area Course Requirement or the Minor Requirement. An exemption may not be used to satisfy the requirement for two courses at the 700-902 level.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Electromagnetic Fields and Waves

Code	Title	Credits
<i>Choose 12 credits from the following:</i>		
E C E 545	Advanced Microwave Measurements for Communications	
E C E 547	Advanced Communications Circuit Design	
E C E 740	Electromagnetic Theory (Strongly recommended)	
E C E 742	Computational Methods in Electromagnetics	
E C E 744	Theory of Microwave Circuits and Devices	
E C E/ PHYSICS 748	Linear Waves	
E C E/N E/ PHYSICS 749	Coherent Generation and Particle Beams	
E C E 841	Electromagnetic Radiation and Transmission	
E C E/ PHYSICS 848	Nonlinear Waves	
E C E 901	Special Topics in Electrical and Computer Engineering (no more than 2 semesters can be used to fulfill this requirement.)	

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do

not appear in the Graduate School admissions application, and they will not appear on the transcript.

Energy and Power Systems

Code	Title	Credits
E C E 411	Introduction to Electric Drive Systems	3
E C E 412	Power Electronic Circuits	3
E C E 427	Electric Power Systems	3
<i>Choose 12 credits from the following list:</i>		
E C E 504	Electric Machine & Drive System Laboratory	
E C E 511	Theory and Control of Synchronous Machines	
E C E 512	Power Electronics Laboratory	
E C E 711	Dynamics and Control of AC Drives	
E C E 712	Solid State Power Conversion	
E C E 713	Electromagnetic Design of AC Machines	
E C E 714	Utility Application of Power Electronics	
E C E 723	On-Line Control of Power Systems	
E C E 731	Advanced Power System Analysis	

Students with strong interdisciplinary interests (e.g.,: control, reliability, materials, optimization techniques, numerical methods, electro-magnetics, energy policy, thermal issues, electric transportation, wind energy) may take up to a maximum of 6 credits in a related area upon approval by their academic adviser. Note: E C E 512 is not regularly scheduled.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Plasmas and Controlled Fusion

Code	Title	Credits
E C E/N E/ PHYSICS 525	Introduction to Plasmas	3
<i>Choose 3 credits from the following list:</i>		
N E 526	Laboratory Course in Plasmas	
E C E/N E/ PHYSICS 527	Plasma Confinement and Heating	
E C E/N E 528	Plasma Processing and Technology	
<i>Choose one course from the following:</i>		
E C E/N E/ PHYSICS 724	Waves and Instabilities in Plasmas	
E C E/N E/ PHYSICS 725	Plasma Kinetic Theory and Radiation Processes	
E C E/N E/ PHYSICS 726	Plasma Magnetohydrodynamics	
E C E/ PHYSICS 748	Linear Waves	
E C E/ PHYSICS 848	Nonlinear Waves	

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Solid State Electronics and Photonics

Code	Title	Credits
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Choose 18 credits from the following:

E C E 434	Photonics	
E C E 445	Semiconductor Physics and Devices	
E C E 466	Electronics of Solids	

Must include 6 credits from the list below:

E C E 536	Integrated Optics and Optoelectronics	
E C E 541	Analog MOS Integrated Circuit Design	
E C E 542	Introduction to Microelectromechanical Systems	
E C E/CBE/ M S & E 544	Processing of Electronic Materials	
E C E 548	Integrated Circuit Design	
E C E 549	Integrated Circuit Fabrication Laboratory	
E C E 601	Special Topics in Electrical and Computer Engineering	

Must include 9 credits from the list below:

E C E 741	Semiconductor Diode Lasers and other Optoelectronic Devices	
E C E 743	High-Power Diode Lasers and Amplifiers	
E C E 745	Solid State Electronics	
E C E/ PHYSICS 746	Quantum Electronics	
E C E 845	Transport in Semiconductor Devices	
E C E 901	Special Topics in Electrical and Computer Engineering	

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Secondary Area Course Requirement

The Secondary Area Course Requirement consists of a minimum of six credits of University of Wisconsin E C E courses numbered 700 or higher outside the student's primary area. Secondary area courses need not be in the same E C E specialty area, and cannot be used to satisfy the student's Ph.D minor program. No research courses can be used to satisfy this requirement, but E C E independent study may with justification. E C E 702 may not be used for this purpose. The secondary area courses must be achieved with a grade point average of 3.25 or higher. Up to six credits of the secondary area courses may be substituted with other graduate-level courses if approved by the student's advisor and the E C E graduate committee following submission of a coherent course plan that justifies the substitution. The Secondary Area Course Approval form is available in online at: [https://](https://www.engr.wisc.edu/app/uploads/2016/01/ECE-graduate-phd-secondary-area-course-approval-form-2.pdf)

www.engr.wisc.edu/app/uploads/2016/01/ECE-graduate-phd-secondary-area-course-approval-form-2.pdf

E C E 610 Seminar in Electrical and Computer Engineering Requirement

All on-campus E C E graduate students must register for E C E 610 during their first semester of graduate studies. Ph.D. degree seeking students must take 1 credit of E C E 610 in the Fall semester of which they are entering the program and 2 credits of E C E 611 in the following Spring semester. This requirement must be done in the Ph.D student's first year. Due to the additional credits, these seminar credits will count toward the 51 credits required by the Ph.D. degree.

The purpose of E C E 610 is to expose students in their first semester of graduate school to various areas within E C E and to areas outside of E C E to which E C E has or could have connections, e.g., biotechnology, physics, mathematics, business, software. Electrical and computer engineering is very interdisciplinary in nature, and so it is important that students be aware of state-of-the-art research in areas other than their own.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (https://docs.google.com/document/d/1vzDpUN5CGy2Rdl7SnD2ZAsG7-b_8I7QaXOLGfSToHnY/edit?usp=sharing) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count graduate coursework from other institutions toward the minimum graduate degree credit requirement and the minimum graduate coursework (50%) requirement. No credits from other institutions can be counted toward the minimum graduate residence credit requirement. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW-Madison Undergraduate

With program approval, up to 7 credits numbered 400 or above can be counted toward the minimum graduate degree credit requirement. Up to 7 credits of E C E courses numbered 700 or above can be counted toward the minimum graduate coursework (50%) requirement. No credits can be counted toward the minimum graduate residence credit requirement.

UW-Madison University Special

With program approval, students are allowed to count up to 9 credits of coursework numbered 400 or above taken as a

UW–Madison University Special student toward the minimum graduate residence credit requirement, and the minimum graduate degree credit requirement. Courses numbered 700 or above taken as a UW–Madison Special student toward the minimum graduate coursework (50%) requirement. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

PROBATION

Students must be in good academic standing with the Graduate School, their program, and their advisor. The Graduate School regularly reviews the record of any student who received grades of BC, C, D, F, or I in graduate-level courses (300 or above), or grades of U in research and thesis. This review could result in academic probation with a hold on future enrollment, and the student may be suspended from graduate studies.

The Graduate School may also put students on probation for incompletes not cleared within one term. All incomplete grades must be resolved before a degree is granted.

The status of a student can be one of three options:

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

A semester GPA below 3.0 will result in the student being placed on academic probation. If a semester GPA of 3.0 is not attained during the subsequent semester of full time) the student may be dismissed from the program or allowed to continue for 1 additional semester based on advisor appeal to the Graduate School.

ADVISOR / COMMITTEE

An oral examination is required in defense of the completed Ph.D. dissertation. The examination is administered by a committee appointed by the Dean of the Graduate School, upon recommendation by the student's research advisor. The committee must consist of four or more members of the graduate faculty and is chaired by the student's advisor. At least one committee member must be from outside the E C E department and field, and at least two committee members must be from within the E C E Department. Students must designate at least three members of their committee to be readers of their dissertation. A student must provide copies of their Ph.D. thesis to defense committee members at least two weeks prior to the scheduled defense.

The final examination cannot be taken until all other requirements for the Ph.D. have been satisfied, including being eligible to receive dissertator status. The student's record must be cleared of all Incomplete and Progress "P" grades (E C E 990 grades can be cleared after the student has successfully defended their dissertation).

Students must request the Final Examination Warrant from the Graduate Student Services Office, 3182 Mechanical Engineering, at least three weeks prior to the date of the examination. The Student Services office must be notified of the student's examination date,

time, and other defense details AT LEAST one week prior to the examination. There is no limit to the number of times a student may take the final oral examination.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

The qualifying exam must be taken in the fourth semester of study. The preliminary examination must be passed in the fourth year of study.

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Funding is not guaranteed and applicants should be prepared to fund their degree. The department awards a small number of research assistantships, teaching assistantships, project assistantships, and fellowships each year. All applications are automatically considered for department funding.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Demonstrate an ability to synthesize knowledge from a subset of the biological, physical, and social sciences to help frame problems critical to the future of their discipline.
2. Conduct original research.
3. Demonstrate an ability to create new knowledge and communicate it to their peers.
4. Fosters ethical and professional conduct.

PEOPLE

Faculty: Professors Booske (chair), Gubner (vice-chair), Anderson, Barmish, Behdad, Boston, Botez, Davoodi, DeMarco, Farrell, Fawaz, Hagness, Hitchon, Hu, Jahns, Jiang, Jog, Kats, Kim, Knezevic, Lesieutre, Lessard, Li, Lipasti, Ludois, Ma, Mawst, Milenkovic, Nowak, Papailiopoulos, Ramanathan, Roald, San Miguel, Sayeed, Sethares,

Severson, Shohet, van der Weide, Van Veen, Velten, Venkataramanan, Wendt, Willett, Yu

ENGINEERING - COLLEGE-WIDE

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Engineering, M.Eng. (p. 493)
- Environmental Chemistry and Technology, Doctoral Minor (p. 508)
- Environmental Chemistry and Technology, M.S. (p. 509)
- Environmental Chemistry and Technology, Ph.D. (p. 511)
- Manufacturing Systems Engineering, M.S. (p. 515)

ENGINEERING, M.ENG.

OUR PROGRAMS

We improve the practice of engineering by providing world-class, objective continuing education and credit instruction for technical professionals. We increase students' communication skills, enhance the public's understanding of science and technology, and emulate the Wisconsin Idea. (<https://wisconsinidea.wisc.edu/history-of-the-wisconsin-idea>)

Programs are structured to help working professionals continue their educational path without interrupting their full-time jobs. You will be empowered, engaged, and more passionate about your career after completing courses or a degree program from UW–Madison. You will have the confidence and skills to take your projects or your responsibilities to the next level. UW–Madison's instructors are leading experts from industry, research, private practice, government, and education.

The named options are:

- Master of Engineering–Named Option: Engine Systems (p. 495)
- Master of Engineering–Named Option: Engineering Data Analytics (p. 497)
- Master of Engineering–Named Option: Engineering Management (p. 499)
- Master of Engineering–Named Option: Manufacturing Systems Engineering (p. 502)
- Master of Engineering–Named Option: Sustainable Systems Engineering (p. 504)
- Master of Engineering–Named Option: Technical Japanese (p. 506)

ADMISSIONS

The Graduate School sets minimum requirements for admissions (<https://grad.wisc.edu/admissions/requirements>). Academic program admission requirements are often more rigorous than those set by the Graduate School. Please check the program's website for details.

Students apply to the master of engineering through one of the named options:

- Master of Engineering–Named Option: Engine Systems (p. 495)
- Master of Engineering–Named Option: Engineering Data Analytics (p. 497)
- Master of Engineering–Named Option: Engineering Management (p. 499)
- Master of Engineering–Named Option: Manufacturing Systems Engineering (p. 502)
- Master of Engineering–Named Option: Sustainable Systems Engineering (p. 504)
- Master of Engineering–Named Option: Technical Japanese (p. 506)

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Students in the Engineering M.Eng. programs are not permitted to accept teaching assistantships, project assistantships, research assistantships or other appointments that would result in a tuition waiver. Students in these programs cannot enroll in other graduate programs nor take courses outside the prescribed curriculum. If you intend to combine study in this program with other academic programs at UW–Madison, please contact Shainah Greene, graduate programs coordinator (shainah.greene@wisc.edu).

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

Note: The major is currently non-admitting. Students are admitted through one of the named options (sub-majors) below (p. 494).

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
No	No	Yes	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules.

Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement See one of the M.Eng. named options (linked below) for specific requirement information.

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements Must retake any courses for which a grade below C is recorded.

Assessments and Examinations No formal examination required.

Language Requirements No language requirements.

REQUIRED COURSES

Select a named option (p. 494) for courses required.

NAMED OPTIONS (SUB-MAJORS)

A named option is a formally documented sub-major within an academic major program. Named options appear on the transcript with degree conferral. Students pursuing the master of engineering must select one of the following named options:

- Engineering: Engine Systems, M.Eng. (p. 495)
- Engineering: Engineering Data Analytics, M.Eng. (p. 497)
- Engineering: Engineering Management, M.Eng. (p. 499)
- Engineering: Manufacturing Systems Engineering, M.Eng. (p. 502)
- Engineering: Sustainable Systems Engineering, M.Eng. (p. 504)
- Engineering: Technical Japanese, M.Eng. (p. 506)

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies

beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://uwmadison.app.box.com/s/gdm737wsnc8iut551kaivz58skq7du4k>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count graduate coursework from other institutions toward the minimum graduate degree credit requirement and the minimum graduate coursework (50%) requirement. No credits from other institutions can be counted toward the minimum graduate residence credit requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

Up to 7 credits numbered 300 or above can be counted toward the minimum graduate degree credit requirement. Up to 7 credits of courses numbered 600 or above can be counted toward the minimum graduate coursework (50%) requirement. No credits can be counted toward the minimum graduate residence credit requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison University Special

With program approval, students are allowed to count up to 9 credits of coursework numbered 300 or above taken as a UW–Madison Special student toward the minimum graduate residence credit requirement, and the minimum graduate degree credit requirement, and up to 15 credits of courses numbered 700 or above taken as a UW–Madison Special student toward the minimum graduate coursework (50%) requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The status of a student can be one of three options:

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

ADVISOR / COMMITTEE

All students have both a plan advisor and academic advisor (typically the program director or academic director for each program); programs without a fixed curriculum are required to meet

with their advisor to outline an approved plan of study by the end of their first academic term.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Students enrolled in these programs are not permitted to accept teaching assistantships, project assistantships, research assistantships, or other appointments that would result in a tuition waiver. Students in these programs cannot enroll in other graduate programs nor take courses outside the prescribed curriculum. If you intend to combine study in this program with other academic programs at UW–Madison, please contact Shainah Greene, graduate programs coordinator (shainah.greene@wisc.edu (Shainah.Greene@wisc.edu)).

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Acquire a strong background in engineering principles and a thorough knowledge of the latest.
2. Acquire practical engineering experience that will be immediately applicable in the workplace.
3. Demonstrate an ability to formulate, analyze, and solve advanced engineering problems.
4. Demonstrate creative, independent problem solving skills.
5. Apply the latest scientific and technological advancements, advanced techniques, and modern engineering tools to these problems.
6. Acquire knowledge and practice of career-enhancing competencies that enhance professional opportunities and personal success.
7. Recognize and apply principles of ethical and professional conduct.

ENGINEERING: ENGINE SYSTEMS, M.ENG.

This is a named option within the Engineering M.Eng (p. 493).

The named option Engine Systems is the only online engineering master's degree focused on internal combustion engine development. This interactive, web-based program provides internal combustion engine engineers with a broad base of skills in:

- Dynamics and design
- Combustion and fluid mechanics
- Control and vibrations
- Global teamwork

The program is tailored for working engineers, offering:

- An online platform accessible to you from anywhere in the world
- Flexible learning times
- Courses and projects that apply immediately to real-world work
- A supportive structure that keeps you on track

ADMISSIONS

A small cohort of students is selected each fall term. Fall deadline is July 1.

Admission requirements for engineers interested in applying are:

- A B.S. degree in engineering or similar degree from an ABET-accredited program
- A minimum undergraduate grade point average (GPA) of 3.00 on the equivalent of the last 60 semester hours (approximately two years of work) or a master's degree with a minimum cumulative GPA of 3.00

This 30-credit program spans seven semesters, or three-and-a-half years. Students are required to attend a one-week residency on the UW–Madison campus each year of the program. For details, please contact Dr. Sandra Anderson, program director, at 608-890-2026; sandra.anderson@wisc.edu; or see the program website (<https://epd.wisc.edu/online-degree/master-of-engineering-engine-systems>).

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Students in the Engineering M.Eng. programs are not permitted to accept teaching assistantships, project assistantships, research assistantships or other appointments that would result in a tuition waiver. Students in these programs cannot enroll in other graduate programs

nor take courses outside the prescribed curriculum. If you intend to combine study in this program with other academic programs at UW–Madison, please contact Shainah Greene, graduate programs coordinator (shainah.greene@wisc.edu).

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
No	No	Yes	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement All courses in this fixed curriculum program are graduate-level courses, identified with the Graduate Level Coursework attribute in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>), and are offered exclusively to Graduate students in the M.Eng. degree program.

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements Must retake any courses for which a grade below C is recorded.

Assessments and Examinations No formal examination required.

Language Requirements No language requirements.

REQUIRED COURSES

Code	Title	Credits
E P D 641	Essential Skills for Engineering Productivity	2
E P D 642	Thermal Systems Engineering	2
E P D 626	Engine Project Management	3
E P D 622	Engine Design I	2
E P D 623	Engine Design II	4
E P D 624	Engine Performance and Combustion	4
E P D 625	Engine Gas Dynamics	3
E P D 643	Analysis of Trends in Engines - Legislative Drivers and Alternative Fuels	1
E P D 644	Analysis of Trends in Engines - Powertrain Technologies and Manufacturing	1
E P D 627	Perspectives on Engine Modeling	2
E P D 629	Powertrain Systems and Controls	4

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

NAMED OPTION-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

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PRIOR COURSEWORK

Graduate Work from Other Institutions

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UW–Madison Undergraduate

Up to 7 credits numbered 300 or above can be counted toward the minimum graduate degree credit requirement. Up to 7 credits of courses numbered 600 or above can be counted toward the minimum graduate coursework (50%) requirement. No credits can be counted toward the minimum graduate residence credit requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison University Special

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PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

ADVISOR / COMMITTEE

All students have both a plan advisor and academic advisor (typically the program director or academic director for each program); programs without a fixed curriculum are required to meet with their advisor to outline an approved plan of study by the end of their first academic term.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Students enrolled in these programs are not permitted to accept teaching assistantships, project assistantships, research assistantships or other appointments that would result in a tuition

waiver. Students in these programs cannot enroll in other graduate programs nor take courses outside the prescribed curriculum. If you intend to combine study in this program with other academic programs at UW-Madison, please contact Graduate Programs Coordinator Shainah Greene (Shainah.Greene@wisc.edu).

PROFESSIONAL DEVELOPMENT**GRADUATE SCHOOL RESOURCES**

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

ENGINEERING: ENGINEERING DATA ANALYTICS, M.ENG.

This is a named option within the Engineering M.Eng. (p. 493)

The named option of Engineering Data Analytics is an online master's degree program that teaches students how to use hardware and software to analyze, process, and build conclusions using "big data" in the design, testing, and operations phases of numerous computationally intensive engineering processes.

The degree offers students a chance to become proficient in:

- High performance computing
- Modeling, simulation, and visualization
- Emerging hardware and software
- Programming languages
- Problem-solving methodologies
- Pattern recognition
- Optimum design

Students will also have the opportunity to sharpen their digital and technical communications skills, including project management, and how to lead technical teams.

ADMISSIONS

Applications are accepted on a rolling basis for fall and spring terms.

- Spring deadline is November 1.
- Fall deadline is July 1.

The degree may be earned by engineers who have:

- A B.S. degree in engineering or computer science from an ABET-approved program
- A minimum undergraduate grade point average (GPA) of 3.00 on the equivalent of the last 60 semester hours (approximately two years of work) or a master's degree with a minimum cumulative GPA of 3.00

Interested applicants with B.S. degrees in related fields should contact the graduate programs coordinator for more specific admission information at gradadmissions@epd.wisc.edu. For more details, see the program website (<https://epd.wisc.edu/online-degree/engineering-data-analytics>).

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Students in the Engineering M.Eng. programs are not permitted to accept teaching assistantships, project assistantships, research assistantships or other appointments that would result in a tuition waiver. Students in these programs cannot enroll in other graduate programs nor take courses outside the prescribed curriculum. If you intend to combine study in this program with other academic programs at UW–Madison, please contact Shainah Greene, graduate programs coordinator (shainah.greene@wisc.edu).

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
No	No	Yes	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely

online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement	30 credits
Minimum Residence Credit Requirement	16 credits
Minimum Graduate Coursework Requirement	Half of degree coursework (at least 15 credits out of 30 total credits) must be in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (https://registrar.wisc.edu/course-guide/).
Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	Must retake any courses for which a grade below C is recorded.
Assessments and Examinations	No formal examination required.
Language Requirements	No language requirements.

REQUIRED COURSES

Contact program for more information.

Code	Title	Credits
I SY E 412	Fundamentals of Industrial Data Analytics	3
M E/COMP SCI/ E C/E M A/E P 759	High Performance Computing for Applications in Engineering	3
L I S 751	Database Design for Information Professionals	3
E P D 416	Engineering Applications of Statistics	3
M E/COMP SCI/ E C E 532	Matrix Methods in Machine Learning	3

POLICIES

GRADUATE SCHOOL POLICIES

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NAMED OPTION-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

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PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count graduate coursework from other institutions toward the minimum graduate degree credit requirement and the minimum graduate coursework (50%) requirement. No credits from other institutions can be counted toward the minimum graduate residence credit requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

Up to 7 credits numbered 300 or above can be counted toward the minimum graduate degree credit requirement. Up to 7 credits of courses numbered 600 or above can be counted toward the minimum graduate coursework (50%) requirement. No credits can be counted toward the minimum graduate residence credit requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison University Special

With program approval, students are allowed to count up to 9 credits of coursework numbered 300 or above taken as a UW–Madison Special student toward the minimum graduate residence credit requirement, and the minimum graduate degree credit requirement, and up to 15 credits of courses numbered 700 or above taken as a UW–Madison Special student toward the minimum graduate coursework (50%) requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

ADVISOR / COMMITTEE

All students have both a plan advisor and academic advisor (typically the program director or academic director for each

program); programs without a fixed curriculum are required to meet with their advisor to outline an approved plan of study by the end of their first academic term.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Students enrolled in these programs are not permitted to accept teaching assistantships, project assistantships, research assistantships or other appointments that would result in a tuition waiver. Students in these programs cannot enroll in other graduate programs nor take courses outside the prescribed curriculum. If you intend to combine study in this program with other academic programs at UW–Madison, please contact Shainah Greene, graduate programs coordinator (shainah.greene@wisc.edu).

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

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ENGINEERING: ENGINEERING MANAGEMENT, M.ENG.

This is a named option within the Engineering M. Eng. (p. 493)

The named option Engineering Management is a two-year online engineering master's degree program designed to give experienced engineers from all disciplines the tools and capabilities to be more effective engineering leaders. Students gain technical proficiency in:

- Organizational leadership
- Project management
- Business operations
- Communications
- Quality management
- Data-based management
- Engineering law
- Marketing for technical professionals
- International engineering practice

The program is tailored for working engineers, offering:

- An online platform accessible to you from anywhere in the world
- Flexible learning times
- Courses and projects that apply immediately to real-world work

Note: The named option in engineering management in the master of engineering degree program was formerly named professional practice (MEPP). The program was renamed in summer 2014.

ADMISSIONS

A cohort of students begins in summer each year. This is the recommended term to start. Students are also accepted on a rolling basis for fall and spring terms.

- Spring deadline is November 1
- Summer deadline is May 1
- Fall deadline is June 1

Admission requirements for engineers interested in applying are:

- A B.S. degree in engineering from an ABET-approved program
- A minimum undergraduate grade-point average (GPA) of 3.00 on the equivalent of the last 60 semester hours (approximately two years of work) or a master's degree with a minimum cumulative GPA of 3.00
- Two years of post-baccalaureate work experience in engineering (co-op or intern experience counts toward requirement)

Interested applicants with B.S. degrees in related fields should contact the graduate programs coordinator for more specific admission information at gradadmissions@epd.wisc.edu. For further details about the program, contact Wayne Pferdehirt, program director, at 608-265-2361, wayne.pferdehirt@wisc.edu, or see the program website (<https://epd.wisc.edu/online-degree/master-of-engineering-management>).

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Students in the Engineering M.Eng. programs are not permitted to accept teaching assistantships, project assistantships, research assistantships, or other appointments that would result in a tuition waiver. Students in these programs cannot enroll in other graduate programs nor take courses outside the prescribed curriculum. If you intend to combine study in this program with other academic programs at UW–Madison, please contact Shainah Greene, graduate programs coordinator (shainah.greene@wisc.edu).

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
No	No	Yes	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

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Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement All courses in this curriculum program are graduate-level courses, identified with the Graduate Level Coursework attribute in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>), and are offered exclusively to graduate students in the M.Eng. degree program.

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements Must retake any courses for which a grade below C is recorded.

Assessments No formal examination required.
and
Examinations

Language No language requirements.
Requirements

REQUIRED COURSES

Code	Title	Credits
E P D 700	Connected Learning Essentials	1
E P D 710	Foundations of Engineering Leadership	2
E P D 611	Engineering Economics and Management	3
E P D 612	Technical Project Management	3
E P D 617	Communicating Technical Information	3
E P D 470	Engineering Problem Solving with Computers ¹	3
or E P D 690	Special Topics in Engineering Professional Development	
E P D 416	Engineering Applications of Statistics ¹	3
or E P D 690	Special Topics in Engineering Professional Development	
E P D 690	Special Topics in Engineering Professional Development ¹	1-3
E P D 613	International Engineering Strategies and Operations	3
E P D 618	Applied Leadership and Management of Engineering Organizations	3
E P D 518	Quality Engineering and Quality Management	3
E P D 708	Creating Breakthrough Innovations	1
or E P D/ GEN BUS/ M H R 785	Effective Negotiation Strategies	

¹ E P D 690—Special Topics must be recommended and/or approved by program director.

POLICIES

GRADUATE SCHOOL POLICIES

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NAMED OPTION-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

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(<https://uwmadison.app.box.com/s/>)

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UW–Madison Undergraduate

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UW–Madison University Special

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PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

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ADVISOR / COMMITTEE

All students have both a plan advisor and academic advisor (typically the program director or academic director for each program); programs without a fixed curriculum are required to meet with their advisor to outline an approved plan of study by the end of their first academic term.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

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PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

ENGINEERING: MANUFACTURING SYSTEMS ENGINEERING, M.ENG.

This is a named option within the Engineering M.Eng (p. 493).

The named option Manufacturing Systems Engineering is an online master's degree program designed to prepare participants to lead their manufacturing operations into the future. Students will gain cross-functional expertise to drive creative product and process improvement leveraging advanced tools, technologies, and automation systems .

The degree offers students a chance to:

- Analyze, compare, and contrast technical and business systems to optimize their operation
- Learn how to simulate production processes and evaluate large data sets to identify areas of improvement and develop long-term strategies
- Solve problems and drive innovation to remain competitive
- Understand new automation and smart manufacturing technologies that will change the manufacturing processes and positively affect the business

ADMISSIONS

The degree may be earned by engineers who have:

- A B.S. degree in engineering from an ABET-approved program

- A minimum undergraduate grade-point average (GPA) of 3.00 on the equivalent of the last 60 semester hours (approximately two years of work) or a master's degree with a minimum cumulative GPA of 3.00.

Interested applicants with B.S. degrees in related fields should contact the graduate programs coordinator for more specific admission information at gradadmissions@epd.wisc.edu. For more details, see the program website. (<https://epd.wisc.edu/online-degree/manufacturing-systems-engineering>)

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Students in the Engineering M.Eng. programs are not permitted to accept teaching assistantships, project assistantships, research assistantships, or other appointments that would result in a tuition waiver. Students in these programs cannot enroll in other graduate programs nor take courses outside the prescribed curriculum. If you intend to combine study in this program with other academic programs at UW–Madison, please contact Shainah Greene, graduate programs coordinator (shainah.greene@wisc.edu).

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
No	No	Yes	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement Half of degree coursework (at least 15 credits out of 30 total credits) must be in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements Must retake any courses for which a grade below C is recorded.

Assessments and Examinations No formal examination required.

Language Requirements No language requirements.

REQUIRED COURSES

Code	Title	Credits
E P D 518	Quality Engineering and Quality Management	3
E P D 611	Engineering Economics and Management	3
E P D 612	Technical Project Management	3
I SY E 412	Fundamentals of Industrial Data Analytics	3
I SY E 615	Production Systems Control	3
I SY E/M E 641	Design and Analysis of Manufacturing Systems	3
M E/E C E 739	Advanced Robotics	3
OTM/ MARKETNG 722	Logistics Management	3

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

NAMED OPTION-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://uwmadison.app.box.com/s/gdm737wsnc8iut551kaivz58skq7du4k>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count graduate coursework from other institutions toward the minimum graduate degree credit requirement and the minimum graduate coursework (50%) requirement. No credits from other institutions can be counted toward the minimum graduate residence credit requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW-Madison Undergraduate

Up to 7 credits numbered 300 or above can be counted toward the minimum graduate degree credit requirement. Up to 7 credits of courses numbered 600 or above can be counted toward the minimum graduate coursework (50%) requirement. No credits can be counted toward the minimum graduate residence credit requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW-Madison University Special

With program approval, students are allowed to count up to 9 credits of coursework numbered 300 or above taken as a UW-Madison Special student toward the minimum graduate residence credit requirement, and the minimum graduate degree credit requirement, and up to 15 credits of courses numbered 700 or above taken as a UW-Madison Special student toward the minimum graduate coursework (50%) requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

1. Good standing (progressing according to standards; any funding guarantee remains in place).

2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

ADVISOR / COMMITTEE

All students have both a plan advisor and academic advisor (typically the program director or academic director for each program); programs without a fixed curriculum are required to meet with their advisor to outline an approved plan of study by the end of their first academic term.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Students enrolled in these programs are not permitted to accept teaching assistantships, project assistantships, research assistantships, or other appointments that would result in a tuition waiver. Students in these programs cannot enroll in other graduate programs nor take courses outside the prescribed curriculum. If you intend to combine study in this program with other academic programs at UW–Madison, please contact Shainah Greene, graduate programs coordinator (shainah.greene@wisc.edu).

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

ENGINEERING: SUSTAINABLE SYSTEMS ENGINEERING, M.ENG.

This is a named option within the Engineering M.Eng. (p. 493)

The named option Sustainable Systems Engineering is an online master's degree program designed to prepare students to analyze, design and operate complex systems with low negative impact on the quality of water, land, air, energy, economics, and society. Through appropriate engineering methods, properly applied sustainability principles, and responsible management practices, students will create objective, credible, reliable, cost-effective, and sustainable solutions to society's grand challenges.

The program is tailored for working engineers, offering:

- Knowledge and skills that can immediately be applied to work situations
- Project-based learning with experienced professionals
- Award-winning distance-learning design

ADMISSIONS

Applications are accepted on a rolling basis for fall and spring terms.

- Spring deadline is November 1.
- Fall deadline is July 1.

The degree may be earned by engineers who have:

- A B.S. degree in engineering from an ABET-approved program
- A minimum undergraduate grade-point average (GPA) of 3.00 on the equivalent of the last 60 semester hours (approximately two years of work) or a master's degree with a minimum cumulative GPA of 3.00

Interested applicants with B.S. degrees in related fields should contact the graduate programs coordinator for more specific admission information at gradadmissions@epd.wisc.edu. For more details, see the program website. (<https://epd.wisc.edu/online-degree/sustainable-systems-engineering>)

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Students in the Engineering M.Eng. programs are not permitted to accept teaching assistantships, project assistantships, research assistantships, or other appointments that would result in a tuition waiver. Students in these programs cannot enroll in other graduate programs nor take courses outside the prescribed curriculum. If you intend to combine study in this program with other academic programs at UW–Madison, please contact Shainah Greene, graduate programs coordinator (shainah.greene@wisc.edu).

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
No	No	Yes	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement Half of degree coursework (at least 15 credits out of 30 total credits) must be in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements Must retake any courses for which a grade below C is recorded.

Assessments and Examinations No formal examination required.

Language Requirements No language requirements.

REQUIRED COURSES

Code	Title	Credits
GEOSCI/ ENVIR ST 411	Energy Resources	3
E P D 690	Special Topics in Engineering Professional Development	1-3
BSE/ENVIR ST 367	Renewable Energy Systems	3
E P D 669	Sustainable Systems Engineering Capstone	3
E P D 730	Sustainable Facilities	3
E P D 700	Connected Learning Essentials	1
E P D 702	Professional Presentations	1
E P 602	Special Topics in Engineering Physics	1-3
E P D 708 or E P D/ GEN BUS/ M H R 785	Creating Breakthrough Innovations Effective Negotiation Strategies	1

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

NAMED OPTION-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://uwmadison.app.box.com/s/gdm737wsnc8iut551kaivz58skq7du4k>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count graduate coursework from other institutions toward the minimum graduate degree credit requirement and the minimum graduate coursework (50%) requirement. No credits from other institutions can be counted toward the minimum graduate residence credit requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW-Madison Undergraduate

Up to 7 credits numbered 300 or above can be counted toward the minimum graduate degree credit requirement. Up to 7 credits of courses numbered 600 or above can be counted toward the minimum graduate coursework (50%) requirement. No credits can be counted toward the minimum graduate residence credit requirement. Coursework earned five or more

years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison University Special

With program approval, students are allowed to count up to 9 credits of coursework numbered 300 or above taken as a UW–Madison Special student toward the minimum graduate residence credit requirement, and the minimum graduate degree credit requirement, and up to 15 credits of courses numbered 700 or above taken as a UW–Madison Special student toward the minimum graduate coursework (50%) requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

ADVISOR / COMMITTEE

All students have both a plan advisor and academic advisor (typically the program director or academic director for each program); programs without a fixed curriculum are required to meet with their advisor to outline an approved plan of study by the end of their first academic term.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Students enrolled in these programs are not permitted to accept teaching assistantships, project assistantships, research assistantships, or other appointments that would result in a tuition waiver. Students in these programs cannot enroll in other graduate programs nor take courses outside the prescribed curriculum. If you intend to combine study in this program with other academic programs at UW–Madison, please contact Shainah Greene, graduate programs coordinator (shainah.greene@wisc.edu).

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

ENGINEERING: TECHNICAL JAPANESE, M.ENG.

Admissions to the Engineering: Technical Japanese M.Eng. have been suspended as of fall 2017. If you have any questions, please contact the department (<https://epd.wisc.edu/about/contact-us>).

This is a named option within the Engineering M.Eng. (p. 493)

The named option Technical Japanese provides the necessary skills and knowledge to interact effectively with Japanese counterparts in the technical or business arena. This degree program begins in the fall of each year. To obtain the degree, candidates must complete at least 30 credits of approved course work (beyond a B.S. degree) in technical Japanese, Japanese language, and technology development in Japan.

Students with a bachelor's degree other than a B.S. degree must provide transcript evidence of the completion of a minimum of 16 semester credits of undergraduate courses in science or engineering in order to be admitted to this degree program. All applicants must have at least a 3.0 GPA from their undergraduate institution (where 4.0 = A).

All courses are offered regularly to students on the UW–Madison campus, and are also offered at a distance. Students must complete E P D/E ASIAN 374 Intermediate Technical Japanese I / E ASIAN/ E P D 375 Intermediate Technical Japanese II. At least 18 credits must come from approved courses numbered 600 or higher. No more than 6 credits of independent study (E P D 699 Independent Study) are allowed. Most students enroll in one course per semester over a period of four years; however, it is possible for highly motivated students to complete the degree in one academic year. For questions concerning the curriculum or the application process, contact Professor James L. Davis, program director, at 608-262-4810, jlDavis1@wisc.edu.

ADMISSIONS

Admissions to the Engineering: Technical Japanese M.Eng. have been suspended as of fall 2017. If you have any questions, please contact the department (<https://epd.wisc.edu/about/contact-us>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Students in the Engineering M.Eng. programs are not permitted to accept teaching assistantships, project assistantships, research assistantships, or other appointments that would result in a tuition waiver. Students in these programs cannot enroll in other graduate programs nor take courses outside the prescribed curriculum. If you intend to combine study in this program with other academic programs at UW–Madison, please contact Shainah Greene, graduate programs coordinator (shainah.greene@wisc.edu).

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
No	No	Yes	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum 30 credits
Credit Requirement

Minimum 16 credits
Residence Credit Requirement

Minimum Graduate Coursework Requirement More than half of degree coursework (at least 18 credits out of 30 total credits) must be in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements Must retake any courses for which a grade below C is recorded.

Assessments and Examinations No formal examination required.

Language Requirements No language requirements.

REQUIRED COURSES

Code	Title	Credits
E P D/E ASIAN 330	Basic Technical Japanese I ¹	3
E P D/E ASIAN 332	Basic Technical Japanese II ¹	3
E P D/E ASIAN 374	Intermediate Technical Japanese I	3
E P D/E ASIAN 375	Intermediate Technical Japanese II	3
E P D/E ASIAN 601	Japanese for Business and Industry	3-4
E P D/E ASIAN 602	Japanese for Politics and Government	3-4
E P D 603	Advanced Technical Japanese Seminar	3-4
E P D 604	Research in Japanese Technical Literature	2-6

¹ Two courses may be waived with previous experience as determined by the program director.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

NAMED OPTION-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://uwmadison.app.box.com/s/gdm737wsnc8iut551kaivz58skq7du4k>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count graduate coursework from other institutions toward the minimum graduate degree credit requirement and the minimum graduate coursework (50%) requirement. No credits from other institutions can be counted toward the minimum

graduate residence credit requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

Up to 7 credits numbered 300 or above can be counted toward the minimum graduate degree credit requirement. Up to 7 credits of courses numbered 600 or above can be counted toward the minimum graduate coursework (50%) requirement. No credits can be counted toward the minimum graduate residence credit requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison University Special

With program approval, students are allowed to count up to 9 credits of coursework numbered 300 or above taken as a UW–Madison Special student toward the minimum graduate residence credit requirement, and the minimum graduate degree credit requirement, and up to 15 credits of courses numbered 700 or above taken as a UW–Madison Special student toward the minimum graduate coursework (50%) requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

ADVISOR / COMMITTEE

All students have both a plan advisor and academic advisor (typically the program director or academic director for each program); programs without a fixed curriculum are required to meet with their advisor to outline an approved plan of study by the end of their first academic term.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Students enrolled in these programs are not permitted to accept teaching assistantships, project assistantships, research assistantships, or other appointments that would result in a tuition waiver. Students in these programs cannot enroll in other graduate programs nor take courses outside the prescribed curriculum. If you intend to combine study in this program with other academic programs at UW–Madison, please contact Shainah Greene, graduate programs coordinator (shainah.greene@wisc.edu).

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

ENVIRONMENTAL CHEMISTRY AND TECHNOLOGY, DOCTORAL MINOR

Any student enrolled in a University of Wisconsin–Madison doctoral program can pursue a doctoral minor in Environmental Chemistry and Technology (EC&T). The strength of the EC&T program lies in its interdisciplinary approach bringing state-of-the-art scientific and engineering principles to the field of environmental chemistry. This enables EC&T to educate and train graduate students for varied careers as well as to advance knowledge and techniques for both scientific research and applied problem solving.

ADMISSIONS

Contact James P. Hurley, Chair, Environmental Chemistry and Technology Program, jphurley@wisc.edu.

REQUIREMENTS

A minimum of 9 course credits associated with the EC&T Ph.D. major's core classwork (CIV ENGR 703 or GEOSCI 875, CIV ENGR 502 or CIV ENGR 704, CIV ENGR/ATM OCN 701) and/or advanced electives (numbered 500 or higher) associated with the program. One semester of CIV ENGR 909 must be included. Breadth of courses should complement the Ph.D. major and the student's academic background. Students are expected to achieve a B or better in all courses for the minor. EC&T minor courses and those required by the Ph.D. major cannot overlap or double-count.

PEOPLE

Faculty: Bleam (Soil Science), Ginder-Vogel (Civil and Environmental Engineering), Harrington (Civil and Environmental Engineering), Helmke (Soil Science), Hurley (chair) (Civil and Environmental Engineering), Karthikeyan (Biological Systems Engineering), McMahon (Civil and Environmental Engineering), Noguera (Civil and Environmental Engineering), Pedersen (Molecular and Environmental Toxicology/Soil Science), Remucal (Civil and Environmental Engineering), Roden (Geoscience), Root (Chemical and Biological Engineering), Schauer

(Civil and Environmental Engineering), Thompson (Biological Systems Engineering)

ENVIRONMENTAL CHEMISTRY AND TECHNOLOGY, M.S.

The program has been organized to offer advanced instruction and research training in environmental chemistry and environmental technology leading to the master of science. The program trains candidates for careers in teaching, research, resource management, environmental consulting, and private sector/industrial positions. Areas of work include the development of advanced technologies and materials for air and water purification and for the saving and storage of energies, alternative energy technologies, water and air pollution control, soil and sediment remediation, environmental technology, chemical limnology, and groundwater chemistry.

The M.S. degree is designed for students who have a strong background in chemistry and who desire graduate training in applying chemistry to environmental systems. Individual programs are tailored to meet the candidate's interests through selection of a specialization and elective courses. Areas of specialization include aquatic chemistry, air pollution chemistry, terrestrial chemistry, and chemical- and bio-technology development.

The Environmental Chemistry and Technology Program faculty is composed of an interdepartmental committee. Several committee members who have appointments in the Department of Civil and Environmental Engineering are located in the Water Science and Engineering Laboratory. Other members are located in their respective departments.

The environmental chemistry and technology area occupies over 10,000 square feet of office and laboratory space in the Water Science and Engineering Laboratory. Facilities include offices, conference room, classrooms, computer facilities, and over 8,000 square feet devoted to research. The research areas, including trace element and mercury clean laboratories, are designed for research in aquatic chemistry, air pollution chemistry, and environmental technology. Shop facilities (electronics/mechanical) allow fabrication of specialized equipment tailored to the particular field and laboratory research needs. Other specialized facilities include areas for investigations of air pollution chemistry, ceramic membrane technologies, hazardous material remediation, and development of energy storage devices.

In addition to the Water Science and Engineering Laboratory, students also have access to numerous facilities on the UW–Madison campus, including laboratories in the Departments of Soil Science, Chemical and Biological Engineering, Materials Science and Engineering, Chemistry, Geoscience, Civil and Environmental Engineering, the Center for Limnology, and the State Laboratory of Hygiene.

ADMISSIONS

Students seeking admission should have a background in the fundamental areas of general, organic, physical, and analytical chemistry. In addition, students should have some background in applied sciences which can be fulfilled with a minimum of 6 credits in natural sciences such as botany, zoology, bacteriology, earth science, material science,

biochemistry, or engineering. Students who have not met these requirements must do so prior to the completion of the master's degree.

The application deadline is January 1 for the fall term. Late applications may not be reviewed for funding opportunities.

Required materials

1. All applicants must use the UW–Madison Graduate School online application system.
2. Three letters of recommendation
3. Statement of purpose.
4. Please send GRE and TOEFL scores electronically to UW–Madison, institution code 1846.
5. All items should be submitted through the online application. Please do not mail or e-mail materials directly to our program at the time of application. If you are admitted to our program, we will request an official copy of your transcript at that time.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Students accepted into the program can expect to be fully funded through through fellowships, teaching assistant-ships, or research assistant-ships on research projects. Admission decisions are based on the student's qualifications and research interests, the availability of funding, and the focus of funded research projects. Funding includes a waiver of tuition (excluding segregated fees), health benefits (including family coverage), and a yearly stipend.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements Students must earn a B or above in all courses counting toward degree requirements.

Assessments and Examinations The thesis track requires a formal thesis.

Language Requirements No language requirements.

REQUIRED COURSES

Students are required to develop a plan of courses with their advisor. Additional courses beyond the core courses may be included with approval of the student's academic advisor and the approval of the EC&T Academic Planning Committee.

All incoming EC&T students should have basic preparation in the fundamental areas of general, organic, physical and analytical chemistry.

Students should also have previous coursework in the natural sciences, which can include botany, bacteriology, zoology, earth science, material science, biochemistry or engineering. Note that CIV ENGR 500 Water Chemistry or equivalent material is a prerequisite for many of the core EC&T courses. If these requirements have not been met prior to entering the program, this should be considered when planning the coursework.

Code	Title	Credits
Core Courses		
<i>Environmental Inorganic Chemistry</i>		
CIV ENGR 703 or GEOSCI 875	Environmental Geochemistry Advanced Topics in Geology	1-3
<i>Environmental Organic Chemistry</i>		
CIV ENGR 502 or CIV ENGR 704	Environmental Organic Chemistry Environmental Chemical Kinetics	3
<i>Air Chemistry</i>		
CIV ENGR/ ATM OCN 701 or CHEM 630	The Chemistry of Air Pollution Selected Topics in Analytical Chemistry	1-3
<i>Additional Coursework</i>		
CIV ENGR 909	Graduate Seminar - Environmental Chemistry & Technology ¹	1
CIV ENGR 790	Master's Research or Thesis ²	4

¹ Students must enroll in CIV ENGR 909 Graduate Seminar - Environmental Chemistry & Technology each semester. Ph.D. students are required to present a seminar at least once during their master's program.

² Students must complete minimum of 4 research credits of CIV ENGR 790 Master's Research or Thesis with their faculty advisor. If supported with a graduate assistantship (TA, RA, PA), students should enroll in the appropriate number of research credits each semester to achieve full-time status as required by credit-load rules.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students may be allowed to count credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

With program approval, 7 credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

With program approval, 15 credits taken as a UW–Madison Special student are allowed toward minimum coursework requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

ADVISOR / COMMITTEE

All incoming students are assigned an advisor. Students are expected to meet with their advisor on a regular basis.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Admitted students will be contacted directly by faculty regarding funding opportunities.

PROFESSIONAL DEVELOPMENT**GRADUATE SCHOOL RESOURCES**

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Articulate research problems, potentials, and limits with respect to theory, knowledge, or practice within the field of environmental chemistry and technology.

2. Formulate ideas, concepts, and/or techniques beyond the current boundaries of knowledge in environmental chemistry and technology.
3. Create research or scholarship that makes a substantive contribution.
4. Demonstrate breadth within their learning experiences.
5. Advance contributions to the field of environmental chemistry.
6. Communicate complex ideas in a clear and understandable manner.
7. Recognize and apply principles of ethical and professional conduct.

PEOPLE

Civil and Environmental Engineering Faculty: Professors Noyce (chair), Adams, Bahia, Cramer, Feigl, Hanna, Harrington, Holloway, Hurley, Karthikeyan, Lee, Likos, Long, McMahon, Noguera, Park, Parra-Montesinos (director), Pedersen, Potter, Ran, Russell, Schauer, Wu; Associate Professors Ahn, Fratta, Hurley, Loheide, Pincheira, Tinjum; Assistant Professors Block, Gadikota, Ginder-Vogel, Hedegaard, Hicks, Prabhakar, Remucal, Sone, Wang, Wright. See also CEE faculty (<http://directory.engr.wisc.edu/cee/faculty>).

Geological Engineering Faculty: Professors Likos (director) (Civil and Environmental Engineering), Anderson (Geoscience), Bahr (Geoscience), Feigl (Geoscience), Goodwin (Geoscience), Holloway (Nelson Institute), Thurber (Geoscience), Tikoff (Geoscience), Tobin (Geoscience), Wang (Geoscience), Wu (Civil and Environmental Engineering); Associate Professors Fratta (Civil and Environmental Engineering), Loheide (Civil and Environmental Engineering), Tinjum (Engineering Professional Development); Assistant Professors Cardiff (Geoscience), Ginder-Vogel (Civil and Environmental Engineering), Hicks (Civil and Environmental Engineering), Sone (Civil and Environmental Engineering), Zoet (Geoscience); Affiliate Professors Kung (Soil Science), Lowery (Soil Science), Plesha (Engineering Physics), Potter (Civil and Environmental Engineering). See also GLE faculty (<https://www.engr.wisc.edu/geological-engineering/people>).

Environmental Chemistry and Technology: Professors Hurley (director) (Civil and Environmental Engineering), Bertram (Chemistry), Bleam (Soil Science), Ginder-Vogel (Civil and Environmental Engineering), Gadikota (Civil and Environmental Engineering), Harrington (Civil and Environmental Engineering), Karthikeyan (Biological Systems Engineering), McMahon (Civil and Environmental Engineering/Bacteriology), Pedersen (Soil Science), Remucal (Civil and Environmental Engineering), Roden (Geoscience), Root (Chemical and Biological Engineering), Schauer (Civil and Environmental Engineering), Thompson (Biological Systems Engineering). See also ECT Faculty (<https://www.engr.wisc.edu/academics/graduate-academics/environmental-chemistry-technology>).

ENVIRONMENTAL CHEMISTRY AND TECHNOLOGY, PH.D.

The program has been organized to offer advanced instruction and research training in environmental chemistry and environmental technology leading to the doctor of philosophy. A doctoral minor in environmental chemistry and technology is also offered. The program trains candidates for careers in teaching, research, resource management, environmental consulting, and private sector/industrial

positions. Areas of work include the development of advanced technologies and materials for air and water purification and for the saving and storage of energies, alternative energy technologies, water and air pollution control, soil and sediment remediation, environmental technology, chemical limnology, and groundwater chemistry.

The Ph.D. degree is designed for students who have a strong background in chemistry and who desire graduate training in applying chemistry to environmental systems. Individual programs are tailored to meet the candidate's interests through selection of a specialization and elective courses. Areas of specialization include aquatic chemistry, air pollution chemistry, terrestrial chemistry, and chemical- and bio-technology development.

The Environmental Chemistry and Technology Program faculty is composed of an interdepartmental committee. Several committee members who have appointments in the Department of Civil and Environmental Engineering are located in the Water Science and Engineering Laboratory. Other members are located in their respective departments.

The environmental chemistry and technology area occupies over 10,000 square feet of office and laboratory space in the Water Science and Engineering Laboratory. Facilities include offices, conference room, classrooms, computer facilities, and over 8,000 square feet devoted to research. The research areas, including trace element and mercury clean laboratories, are designed for research in aquatic chemistry, air pollution chemistry, and environmental technology. Shop facilities (electronics/mechanical) allow fabrication of specialized equipment tailored to the particular field and laboratory research needs. Other specialized facilities include areas for investigations of air pollution chemistry, ceramic membrane technologies, hazardous material remediation, and development of energy storage devices.

In addition to the Water Science and Engineering Laboratory, students also have access to numerous facilities on the UW–Madison campus, including laboratories in the Departments of Soil Science, Chemical and Biological Engineering, Materials Science and Engineering, Chemistry, Geoscience, Civil and Environmental Engineering, the Center for Limnology, and the State Laboratory of Hygiene.

ADMISSIONS

Students seeking admission should have a background in the fundamental areas of general, organic, physical, and analytical chemistry. In addition, students should have some background in applied sciences which can be fulfilled with a minimum of 6 credits in natural sciences such as botany, zoology, bacteriology, earth science, material science, biochemistry, or engineering. Students who have not met these requirements must do so prior to the completion of the master's degree.

The application deadline is January 1 for the fall term. Late applications may not be reviewed for funding opportunities.

Required materials

1. All applicants must use the UW–Madison Graduate School online application system.
2. Three letters of recommendation
3. Statement of purpose.
4. Please send GRE and TOEFL scores electronically to UW–Madison, institution code 1846.

5. All items should be submitted through the online application. Please do not mail or e-mail materials directly to our program at the time of application. If you are admitted to our program, we will request an official copy of your transcript at that time.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Students accepted into the program can expect to be fully funded through through fellowships, teaching assistant-ships, or research assistant-ships on research projects. Admission decisions are based on the student's qualifications and research interests, the availability of funding, and the focus of funded research projects. Funding includes a waiver of tuition (excluding segregated fees), health benefits (including family coverage), and a yearly stipend.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules.

Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement	51 credits
Minimum Residence Credit Requirement	32 credits
Minimum Graduate Coursework Requirement	Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.
Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	Students must earn a B or above in all courses counting toward degree requirements.
Assessments and Examinations	Doctoral students are required to take a comprehensive preliminary exam by the end of their fifth semester of study in the Ph.D. program. A final oral exam of the doctoral dissertation is required. Deposit of the doctoral dissertation in the Graduate School is required.
Language Requirements	No language requirements.
Doctoral Minor/Breadth Requirements	All doctoral students are required to complete a minor.

REQUIRED COURSES

Students are required to develop a plan of courses with their advisor.

All incoming EC&T students should have basic preparation in the fundamental areas of general, organic, physical and analytical chemistry. Students should also have previous coursework in the natural sciences, which can include botany, bacteriology, zoology, earth science, material science, biochemistry or engineering. Note that CIV ENGR 500 Water Chemistry or equivalent material is a prerequisite for many of the core EC&T courses. If these requirements have not been met prior to entering the program, this should be considered when planning the coursework.

Code	Title	Credits
Core Courses		
<i>Environmental Inorganic Chemistry</i>		
CIV ENGR 703 or GEOSCI 875	Environmental Geochemistry Advanced Topics in Geology	1-3
<i>Environmental Organic Chemistry</i>		
CIV ENGR 502 or CIV ENGR 704	Environmental Organic Chemistry Environmental Chemical Kinetics	3
<i>Air Chemistry</i>		

CIV ENGR/ ATM OCN 701 or CHEM 630	The Chemistry of Air Pollution Selected Topics in Analytical Chemistry	1-3
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Additional Coursework

CIV ENGR 909	Graduate Seminar - Environmental Chemistry & Technology ¹	1
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¹ Students must enroll in CIV ENGR 909 Graduate Seminar - Environmental Chemistry & Technology each semester. Ph.D. students should present a seminar once per academic year, either fall or spring semester.

Graduate-Level Chemistry Requirement

Students must take two 500-level or above chemistry courses. A partial list of potential courses is included below. Other courses may be substituted for this requirement with approval of the student's academic advisor and the approval of the EC&T Academic Planning Committee.

Course options

Code	Title	Credits
Select two of the following:		
BIOCHEM 501	Introduction to Biochemistry	3
BIOCHEM 507	General Biochemistry I	3
BIOCHEM 508	General Biochemistry II	3-4
BIOCHEM 800	Practical Nuclear Magnetic Resonance Theory	2
BIOCHEM/ BOTANY 621	Plant Biochemistry	3
BIOCHEM 801	Biochemical Applications of Nuclear Magnetic Resonance	2
CBE 547	Introduction to Colloid and Interface Science	3
CHEM 613	Chemical Crystallography	3
CHEM 624	Electrochemistry	2-3
CHEM 625	Separations in Chemical Analysis	2-3
CHEM 628	Chemical Instrumentation: Design and Control Applications	3
CHEM 636	Topics in Chemical Instrumentation: Introduction to NMR	2
CHEM 637	Topics in Chemical Instrumentation: Advanced Methods in NMR	1-2
CHEM 638	Topics in Chemical Instrumentation: Introduction to Mass Spectrometry	1
CHEM 652	Chemistry of Inorganic Materials	3
CHEM 653	Chemistry of Nanoscale Materials	3
CHEM/ BIOCHEM 665	Biophysical Chemistry	4
CHEM 668	Biophysical Spectroscopy	2-3
CHEM 777	Physical Chemistry of Surfaces	2-3
CIV ENGR 501	Water Analysis-Intermediate	3
CIV ENGR 609	Special Topics in Water Chemistry	1-3
CIV ENGR 700	Chemistry of Natural Waters	3
M S & E 748	Structural Analysis of Materials	3
M S & E 758	Transmission Electron Microscopy Laboratory	1
SOIL SCI 621	Soil Chemistry	3

SOIL SCI 875

Special Topics

1-4

preliminary examination and to be admitted to candidacy a second time.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students may be to count credits of graduate coursework from other institutions. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

With program approval, 7 credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

With program approval, 15 credits taken as a UW–Madison Special student are allowed toward minimum coursework requirements.

PROBATION

A semester GPA below 3.0 will result in the student being placed on academic probation. If a semester GPA of 3.0 is not attained during the subsequent semester of enrollment the student may be dismissed from the program or allowed to continue for one additional semester based on advisor appeal to the Graduate School.

ADVISOR / COMMITTEE

All incoming students are assigned an advisor. Students are expected to meet with their advisor on a regular basis.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another

OTHER

Admitted students will be contacted directly by faculty regarding funding opportunities.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Articulate research problems, potentials, and limits with respect to theory, knowledge, or practice within the field of environmental chemistry and technology.
2. Formulate ideas, concepts, and/or techniques beyond the current boundaries of knowledge in environmental chemistry and technology.
3. Create research or scholarship that makes a substantive contribution.
4. Demonstrate breadth within their learning experiences.
5. Advance contributions to the field of environmental chemistry.
6. Communicate complex ideas in a clear and understandable manner.
7. Fosters ethical and professional conduct.

PEOPLE

Civil and Environmental Engineering Faculty: Professors Noyce (chair), Adams, Bahia, Cramer, Feigl, Hanna, Harrington, Holloway, Hurley, Karthikeyan, Lee, Likos, Long, McMahan, Noguera, Park, Parra-Montesinos (director), Pedersen, Potter, Ran, Russell, Schauer, Wu; Associate Professors Ahn, Fratta, Hurley, Loheide, Pincheira, Tinjum; Assistant Professors Block, Gadikota, Ginder-Vogel, Hedegaard, Hicks, Prabhakar, Remucal, Sone, Wang, Wright. See also CEE faculty (<http://directory.engr.wisc.edu/cee/faculty>).

Geological Engineering Faculty: Professors Likos (director) (Civil and Environmental Engineering), Anderson (Geoscience), Bahr (Geoscience), Feigl (Geoscience), Goodwin (Geoscience), Holloway (Nelson Institute), Thurber (Geoscience), Tikoff (Geoscience), Tobin (Geoscience), Wang (Geoscience), Wu (Civil and Environmental Engineering); Associate Professors Fratta (Civil and Environmental Engineering), Loheide (Civil and Environmental Engineering), Tinjum (Engineering Professional Development); Assistant Professors Cardiff (Geoscience), Ginder-Vogel (Civil and Environmental Engineering), Hicks (Civil and Environmental Engineering), Sone (Civil and Environmental Engineering), Zoet (Geoscience); Affiliate Professors Kung (Soil Science), Lowery (Soil Science), Plesha (Engineering Physics), Potter (Civil and Environmental Engineering). See also GLE faculty (<https://www.engr.wisc.edu/geological-engineering/people>).

Environmental Chemistry and Technology: Professors Hurley (director) (Civil and Environmental Engineering), Bertram (Chemistry),

Bleam (Soil Science), Ginder-Vogel (Civil and Environmental Engineering), Gadikota (Civil and Environmental Engineering), Harrington (Civil and Environmental Engineering), Karthikeyan (Biological Systems Engineering), McMahon (Civil and Environmental Engineering/Bacteriology), Pedersen (Soil Science), Remucal (Civil and Environmental Engineering), Roden (Geoscience), Root (Chemical and Biological Engineering), Schauer (Civil and Environmental Engineering), Thompson (Biological Systems Engineering). See also ECT Faculty (<https://www.engr.wisc.edu/academics/graduate-academics/environmental-chemistry-technology>).

MANUFACTURING SYSTEMS ENGINEERING, M.S.

The Master of Science in Manufacturing Systems Engineering (MSE) is an on-campus, multidisciplinary degree, drawing courses and faculty from engineering, business, computer sciences, and statistics. As the first program of its kind in the United States, and among the first in the world, MSE has long been recognized as a leading provider of resourceful engineers for global and dynamic manufacturing firms. Hands-on projects, along with classes taught by internationally recognized experts and state-of-the-art technology, provide an ideal foundation for anyone entering today's advanced manufacturing environment.

MSE graduates leave the program skilled beyond narrow specialties and equipped to lead technical teams. Students are exposed to practical problems and cutting-edge concepts, resulting in engineers who combine management skills with advanced technical abilities. Courses cover a broad range of manufacturing issues, while reinforcing a systems approach. The variety of subjects allows students to tailor their studies to individual goals or interests. More than 400 MSE alumni currently work in industry.

The student body of the MSE program is predominantly composed of students returning from industry or working for their degrees while employed. The program also has a substantial number of international students. Prospective students find the midsized program an ideal learning environment.

Specifically, the program addresses solutions to problems in the design, development, implementation, operation, evaluation, and management of modern manufacturing systems. A named option in the MSE M.S. degree titled Engineering Management Specialization is also offered, ideal for engineering students with a special interest in management issues pertaining to manufacturing. For students seeking advanced training in management, the School of Business offers an MBA in operations and technology management. A maximum of 6 advanced credits of MSE course work can be used to satisfy some of the MBA degree requirements.

Students may also consider the named option Engineering Management Specialization (p. 520) in the manufacturing systems engineering M.S.

ADMISSIONS

MSE ADMISSIONS PROFILE ([HTTPS://TOOLS.GRAD.WISC.EDU/MAS/DETAILS/VIEW/G624](https://tools.grad.wisc.edu/mas/details/view/g624))

ADMISSION INFORMATION FOR THE ON-CAMPUS MANUFACTURING SYSTEMS ENGINEERING M.S.

To be admitted to the M.S. program, applicants must satisfy the Graduate School's minimum admission requirements as well as the following program requirements: undergraduate engineering degree from an ABET-accredited program or its equivalent (students with a physical sciences degree other than engineering and considerable industry experience are also eligible); an undergraduate grade point average of at least 3.0 on a 4.0 scale (exceptions may be made by the admissions committee in favor of applicants with industry experience); and at least two years of work experience in manufacturing.

The application deadline for entry in the fall semester is January 1. (Fall admissions only)

Admission to the master's program in manufacturing systems engineering (MSE) steps:

1. Please visit the UW–Madison Graduate School Admissions (<https://grad.wisc.edu/admissions/requirements>) to review requirements for admission. Frequently Asked Questions. (<https://grad.wisc.edu/admissions/faq>)
2. Apply at the UW–Madison Graduate School (<http://www.grad.wisc.edu>).
3. Please submit the required application materials to the MSE program uploaded to the online application system including a statement of purpose, 3 letters of recommendation, current vitae/resume and transcript information for all post high school education. (Students applying from non-U.S. universities must supply GRE and either TOEFL, MELAB, or IELTS scores).

After you have submitted all the application materials to the MSE program as well as the graduate school, we will review your qualifications and check if everything is complete. The MSE program will then recommend qualified candidates for admission to the graduate school.

For further information, please contact msaegradadmission@engr.wisc.edu.

Costs of Graduate School/ Tuition Information (<https://grad.wisc.edu/admissions/cost>)

International Applicant Financial Information

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed in graduate-level coursework in the College of Engineering, the School of Business, the Department of Statistics, the Department of Biological Systems Engineering, or the Department of Computer Sciences; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Requirements determined by the program.

Language Requirements No language requirements.

REQUIRED COURSES

The on-campus Manufacturing Systems Engineering M.S. program has three tracks: course only, industrial thesis, and research thesis. Students must take four courses from the core course areas with at least one course from each of the core course areas. All students are required to take the capstone course I SY E/M E 641 Design and Analysis of Manufacturing Systems. The remaining course requirements vary depending on the program track that is chosen and are described in the table below.

Course Only Track ¹

Code	Title	Credits
Four courses selected from the Core Course Areas ²		12
I SY E/M E 641	Design and Analysis of Manufacturing Systems (Offered in spring semester)	3
Elective Courses ³		12
Industry Thesis (Optional for course only option)		3
Total Credits		30

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

² At least one course must be selected from each of the three core areas.

³ Up to one credit of Independent Study for an internship may count as elective credit toward the degree. A written report must be approved by the advisor. This credit cannot be used toward fulfillment of the Industry Thesis or Thesis Research requirements.

Industry Thesis Track ¹

Code	Title	Credits
Four courses selected from the Core Course Areas ²		12

I SY E/M E 641	Design and Analysis of Manufacturing Systems (Offered in spring semester)	3
Industry Thesis		3
Elective Courses ³		12
Total Credits		30

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

² At least one course must be selected from each of the three core areas.

³ Up to one credit of Independent Study for an internship may count as elective credit toward the degree. A written report must be approved by the advisor. This credit cannot be used toward fulfillment of the Industry Thesis or Thesis Research requirements.

Research Thesis Track¹

Code	Title	Credits
Four courses selected from the Core Course Areas ²		12
I SY E/M E 641	Design and Analysis of Manufacturing Systems (Offered in spring semester)	3
Research Thesis		12
Elective Courses ³		3
Total Credits		30

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

² At least one course must be selected from each of the three core areas.

³ Up to one credit of Independent Study for an internship may count as elective credit toward the degree. A written report must be approved by the advisor. This credit cannot be used toward fulfillment of the Industry Thesis or Thesis Research requirements.

Core Course Areas

Code	Title	Credits
Fundamentals of Process and Technology		
CBE 450	Process Design	3
CBE 470	Process Dynamics and Control	3
CBE 540	Polymer Science and Technology	3
CBE 541	Plastics and High Polymer Laboratory	1-3
CBE 770	Advanced Process Dynamics and Control ¹	3
E C E 412	Power Electronic Circuits	3
E C E 453	Embedded Microprocessor System Design	4
E C E/B M E 462	Medical Instrumentation	3
E C E/N E 528	Plasma Processing and Technology	3
E C E 549	Integrated Circuit Fabrication Laboratory	3

I SY E 415	Introduction to Manufacturing Systems, Design and Analysis	3
I SY E 605	Computer Integrated Manufacturing	3
M E 417	Transport Phenomena in Polymer Processing	3
M E 418	Engineering Design with Polymers	3
M E 419	Fundamentals of Injection Molding	3
M E 429	Metal Cutting	3
M E 437	Advanced Materials Selection	3
M E/E C E 439	Introduction to Robotics	3
M E 446	Automatic Controls	3
M E 447	Computer Control of Machines and Processes	3
M E 469	Internal Combustion Engines	3
M E/N E 565	Power Plant Technology	3
M E 514	Additive Manufacturing	3
M E/E C E 577	Automatic Controls Laboratory	4
M E 601	Special Topics in Mechanical Engineering (Fundamentals of Microfabrication) ²	1-3
M E 601	Special Topics in Mechanical Engineering (Design and Prototype Fabrication) ²	1-3
M E 601	Special Topics in Mechanical Engineering (Material Selection) ²	1-3
M E 717	Advanced Polymer Processing ¹	3
M E/E C E 739	Advanced Robotics ¹	3
M E 747	Advanced Computer Control of Machines and Processes ¹	3
M E/CBE 567	Solar Energy Technology	3
M S & E 434	Introduction to Thin-Film Deposition Processes	3
M S & E 461	Advanced Metal Casting	3
N E 405	Nuclear Reactor Theory	3
M S & E 465	Fundamentals of Heat Treatment	3
N E 405	Nuclear Reactor Theory	3
Fundamentals of Systems Engineering and Design		
CBE 430	Chemical Kinetics and Reactor Design	3
CIV ENGR 498	Construction Project Management	3
CIV ENGR 370	Transportation Engineering	3
CIV ENGR 498	Construction Project Management ²	3
COMP SCI/E C E 755	VLSI Systems Design	3
COMP SCI/E C E 756	Computer-Aided Design for VLSI ¹	3
E C E 427	Electric Power Systems	3
M E 418	Engineering Design with Polymers	3
M E 444	Design Problems in Elasticity	3
M E 535	Computer-Aided Geometric Design	3
M E 549	Product Design	3
M E 601	Special Topics in Mechanical Engineering (Mechatronics in Control and Product Realization) ²	1-3

M E 601	Special Topics in Mechanical Engineering (Design of Computer Control Systems) ²	1-3
M E 601	Special Topics in Mechanical Engineering (Computer Aided Design and Analysis of Mechanical Systems) ²	1-3
M E 748	Optimum Design of Mechanical Elements and Systems ¹	3
MARKETNG 427	Enterprise Systems and Supply Chain Management	3
MARKETNG 440	Emerging Issues in New Product Development	3
MARKETNG 740	Emerging Issues in New Product Development	3
OTM 860	Sustainable Design of Innovative Products, Services and Systems	3
I SY E/M E 510	Facilities Planning	3
I SY E/M E 512	Inspection, Quality Control and Reliability	3
I SY E 515	Engineering Management of Continuous Process Improvement	3
I SY E 520	Quality Assurance Systems	3
I SY E/B M E 564	Occupational Ergonomics and Biomechanics	3
I SY E 575	Introduction to Quality Engineering	3
I SY E 612	Information Sensing and Analysis for Manufacturing Processes	3
I SY E 620	Simulation Modeling and Analysis	3
I SY E/M E 643	Performance Analysis of Manufacturing Systems	3
OTM 654	Production Planning and Control	3
OTM 770	Sustainable Approaches to System Improvement ^{1,3}	4
OTM 875	Seminar in Operations and Technology Management	3
STAT/M E 424	Statistical Experimental Design	3
Fundamentals of Buisness and Management		
ACCT I S 300	Accounting Principles	3
ACCT I S 301	Financial Reporting I	3
ACCT I S 710	Managerial Accounting	3
GEN BUS 765	Contemporary Topics	1-4
FINANCE/ECON 300	Introduction to Finance	3
FINANCE 757	Entrepreneurial Finance ¹	3
I SY E/PSYCH 653	Organization and Job Design	3
M H R 700	Organizational Behavior	3
M H R 715	Strategic Management of Innovation ¹	3
M H R 722	Entrepreneurial Management ¹	3
M H R 765	Contemporary Topics ¹	1-4
MARKETNG/OTM 421	Fudamentals of Supply Chain Management	3
MARKETNG/OTM 422	Logistics Management	3
MARKETNG 724	Strategic Global Sourcing	3

OTM 365 & OTM 765	Contemporary Topics and Contemporary Topics	2-7
OTM 758	Managing Technological and Organizational Change ¹	3
OTM 861	Strategic Systems and Sustainability	3

¹ Most 700-level courses are only taught every three or four semesters. Please check with instructor about the next offering before completing study plan.

² This course number is used for multiple seminar classes. Please check the Course Guide for correct listing.

³ Offered online through Sustainable Systems Engineering.

NAMED OPTIONS (SUB-MAJORS)

A named option is a formally documented sub-major within an academic major program. Named options appear on the transcript with degree conferral.

- Manufacturing Systems Engineering: Engineering Management Specialization, M.S. (p. 520)

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 12 credits of graduate coursework from other institutions toward the minimum graduate degree requirement and toward the minimum graduate coursework (50%) requirement. No credits from other institutions can be counted toward the minimum graduate residence credit requirement. Coursework earned five or more years prior to admission is not allowed to satisfy requirements.

UW–Madison Undergraduate

With program approval, up to 7 credits from the UW–Madison Undergraduate career numbered 400 or above may be counted toward the minimum graduate degree credit requirement. No prior coursework from the UW–Madison undergraduate career may be counted toward the minimum graduate coursework (50%) requirement or the minimum graduate residence credit requirement. Coursework earned five or more years prior to admission is not allowed to satisfy requirements.

UW–Madison University Special

With program approval, students are allowed to count up to 15 credits of coursework numbered 400 or above taken as a UW–Madison Special student toward the minimum graduate residence credit requirement and the minimum graduate degree credit requirement; coursework numbered 700 or above may satisfy the minimum graduate coursework (50%) requirement. Coursework earned five or more years prior to admission is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

The director of the Manufacturing Systems Engineering Program (https://directory.engr.wisc.edu/me/Faculty/Pfefferkorn_Frank) is assigned as the advisor to incoming students. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies. (See People section of this Guide for possible MSE advisors).

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence.

OTHER

The Manufacturing Systems Engineering Program Guide, with academic information for students, can be found here (https://www.engr.wisc.edu/app/uploads/2016/02/MSE_Program_Guide_10-27-2013.pdf).

- An IDP can help you communicate your professional development and career planning needs and intentions to others including your mentor, which can lead to helpful advice and resources.
- You can use the IDP to make sure you and your mentor's expectations are clearly outlined and in agreement so that there are no big surprises, particularly at the end of your training.
- The current job market is challenging and research has shown that individuals who perform structured career planning achieve greater career success and satisfaction.

The onus to engage in the IDP process is your responsibility—although your mentor, PI, or others may encourage and support you in doing so. The IDP itself remains private to you, and you choose which parts to share with which mentors. Through the IDP process, you may decide to identify various mentors to whom you can go for expertise and advice.

ENGINEERING CAREER SERVICES ([HTTPS://ECS.WISC.EDU](https://ecs.wisc.edu))

Julie Rae, Assistant Director for Graduate Student Career Services, graduate students in all engineering programs

- Resumes and Cover Letters (<https://ecs.wisc.edu/students/resumes-and-cover-letters>)
- Job Search Strategies
- Job Offers and Negotiation (<https://ecs.wisc.edu/students/offers-and-negotiation>)
- CPT for Graduate Students (<https://ecs.wisc.edu/students/co-op-and-internship>)
- Student Appointments: Schedule Here (<http://go.wisc.edu/ecs-grad-appt>)
- Employer Recruitment List for Industrial Engineering Students (<https://ecs.wiscweb.wisc.edu/wp-content/uploads/sites/86/2017/03/IE-Employer-Recruitment-List.pdf>)

UW WRITING CENTER ([HTTP://WRITING.WISC.EDU](http://writing.wisc.edu))

6171 Helen C. White Hall
608-263-1992

The UW Writing Center provides free of charge face-to-face and online consultations that focus on a number of different writing scenarios (i.e. drafts of course papers, resumes, reports, application essays, cover letters, theses, etc). Writing Center instructors will not edit or proofread papers. Instead, their goal is to teach students to edit and proofread on their own in order to become a better, more confident writers.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PROGRAM RESOURCES

THE INDIVIDUAL DEVELOPMENT PLAN ([HTTPS://GRAD.WISC.EDU/PD/IDP](https://grad.wisc.edu/pd/idp))

An Individual Development Plan helps with self-assessment, planning, and communication:

LEARNING OUTCOMES

1. Demonstrate a strong understanding of mathematical, scientific, and engineering principles in the field.
2. Demonstrate an ability to formulate, analyze, and solve advanced engineering problems.
3. Demonstrate creative, independent problem solving skills.
4. Apply the latest scientific and technological advancements, advanced techniques, and modern engineering tools to these problems.
5. Recognize and apply principles of ethical and professional conduct.

PEOPLE

PROFESSORS

- Frank Pfefferkorn (MSE Director; Mechanical Engineering) (https://directory.engr.wisc.edu/me/Faculty/Pfefferkorn_Frank)
- Gregory A. DeCroix (School of Business) Associate (https://directory.engr.wisc.edu/ie/Faculty/Decroix_Gregory)
- Neil Duffie (Mechanical Engineering)–Emeritus (https://directory.engr.wisc.edu/me/Faculty/Duffie_Neil)
- Mark Finster (School of Business) (<https://bus.wisc.edu/faculty/mark-finster>)
- Ananth Krishnamurthy (Industrial and Systems Engineering) (https://directory.engr.wisc.edu/ie/Faculty/Krishnamurthy_Ananth)
- Rafael Lazimy (School of Business) (<https://bus.wisc.edu/faculty/rafi-lazimy>)
- Jingshan Li (Industrial and Systems Engineering) (https://directory.engr.wisc.edu/ie/Faculty/Li_Jingshan)
- Miron Livny (Computer Science) (<http://www.cs.wisc.edu/people/miron>)
- Robert Lorenz (Mechanical Engineering) (https://directory.engr.wisc.edu/me/Faculty/Lorenz_Robert)
- Ella Mae Matusumura (School of Business) (<https://bus.wisc.edu/faculty/ella-mae-matsumura>)
- Sangkee Min (Mechanical Engineering) (https://directory.engr.wisc.edu/me/Faculty/Min_Sangkee)
- Tim Osswald (Mechanical Engineering) (https://directory.engr.wisc.edu/me/Faculty/Osswald_Tim)
- Robert Radwin (Industrial and Systems Engineering) (https://directory.engr.wisc.edu/ie/Faculty/Radwin_Robert)
- Bin Ran (Civil and Environmental Engineering) (https://directory.engr.wisc.edu/cee/faculty/ran_bin)
- Robert Rowlands (Mechanical Engineering) (https://directory.engr.wisc.edu/me/Faculty/Rowlands_Robert)
- Jeffrey S. Russell (Vice Provost for Lifelong Learning/ Dean of Continuing Studies) (<https://continuingstudies.wisc.edu/bios/russell-jeffrey.html>)
- Leyuan Shi (Industrial and Systems Engineering) (https://directory.engr.wisc.edu/ie/Faculty/Shi_Leyuan)
- Kumar Sridharan (Engineering Physics) (https://directory.engr.wisc.edu/ep/faculty/sridharan_kumar)
- Donald S. Stone (Material Science and Engineering) (https://directory.engr.wisc.edu/mse/Faculty/Stone_Donald)
- Krishnan Suresh (Mechanical Engineering) Associate (https://directory.engr.wisc.edu/me/faculty/suresh_krishnan)

- Lih-Sheng (Tom) Turng (Mechanical Engineering) (https://directory.engr.wisc.edu/me/Faculty/Turng_Lih-sheng)
- Raj Veeramani (Industrial and Systems Engineering) (https://directory.engr.wisc.edu/ie/Faculty/Veeramani_Raj)
- Xin Wang (Industrial and Systems Engineering) (https://directory.engr.wisc.edu/ie/Faculty/Wang_Xin)
- Urban Wemmerlov (School of Business) (<https://bus.wisc.edu/faculty/urban-wemmerlov>)
- Michael R. Zinn (Mechanical Engineering) (https://directory.engr.wisc.edu/me/Faculty/Zinn_Michael)
- Shiyu Zhou (Industrial and Systems Engineering) (https://directory.engr.wisc.edu/ie/Faculty/Zhou_Shiyu)

MANUFACTURING SYSTEMS ENGINEERING: ENGINEERING MANAGEMENT SPECIALIZATION, M.S.

This is a named option within the M.S. in Manufacturing Systems Engineering (p. 515).

This program addresses problems in the design, development, implementation, operation, evaluation, and management of modern manufacturing systems. This program is ideal for students with a special interest in management issues pertaining to manufacturing.

ADMISSIONS

To be admitted to the M.S. program, applicants must satisfy the Graduate School's minimum admission requirements as well as the following program requirements: undergraduate engineering degree from an ABET-accredited program or its equivalent (students with a physical sciences degree other than engineering and considerable industry experience are also eligible); an undergraduate grade point average of at least 3.0 on a 4.0 scale (exceptions may be made by the admissions committee in favor of applicants with industry experience); and at least two years of work experience in manufacturing.

The application deadline for entry in the fall semester is January 1. (Fall admissions only)

Admission to the master's program in manufacturing systems engineering (MSE) steps:

1. Please visit the UW–Madison Graduate School Admissions (<https://grad.wisc.edu/admissions/requirements>) to review requirements for admission. Frequently Asked Questions. (<https://grad.wisc.edu/admissions/faq>)
2. Apply at the UW–Madison Graduate School (<http://www.grad.wisc.edu>).
3. Please submit the required application materials to the MSE program uploaded to the online application system including a statement of purpose, 3 letters of recommendation, current vitae/resume' and transcript information for all post high school

education. (Students applying from non-U.S. universities must supply GRE and either TOEFL, MELAB, or IELTS scores).

After you have submitted all the application materials to the MSE program as well as the graduate school, we will review your qualifications and check if everything is complete. The MSE program will then recommend qualified candidates for admission to the graduate school.

For further information, please contact msaegradadmission@engr.wisc.edu.

Costs of Graduate School/ Tuition Information (<https://grad.wisc.edu/admissions/cost>)

International Applicant Financial Information

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement	30 credits
Minimum Residence Credit Requirement	16 credits
Minimum Graduate Coursework Requirement	Half of degree coursework (15 credits out of 30 total credits) must be completed in graduate-level coursework in the College of Engineering, the School of Business, the Department of Statistics, the Department of Biological Systems Engineering, or the Department of Computer Sciences; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (https://registrar.wisc.edu/course-guide/).
Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Requirements determined by the program.

Language Requirements No language requirements.

REQUIRED COURSES

Code	Title	Credits
Four courses selected from the Core Course Areas ¹		12

One of the four courses must be:

OTM 758	Managing Technological and Organizational Change
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Capstone Course

ISYE/M E 641	Design and Analysis of Manufacturing Systems (Offered in spring semester)	3
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Industry Thesis (Optional for course only option)	3
Elective Courses ²	12

Students must take 9 elective credits from the two areas listed below, with no more than 7 credits from any one area. At least six of the credits must be from the School of Business.

Accounting, Finance, and Management

ACCT I S 710	Managerial Accounting
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FINANCE/ ECON 300	Introduction to Finance	
M H R 700	Organizational Behavior	
M H R 722	Entrepreneurial Management	
M H R 723	Business Strategy	
<i>Operations and Technology Management</i>		
M H R 765	Contemporary Topics (Topic: Technology Entrepreneurship)	
OTM 770	Sustainable Approaches to System Improvement	
OTM 860	Sustainable Design of Innovative Products, Services and Systems	
OTM 861	Strategic Systems and Sustainability	
OTM 875	Seminar in Operations and Technology Management	
I SY E 515	Engineering Management of Continuous Process Improvement	
I SY E/PSYCH 653	Organization and Job Design	
Total Credits		30

¹ At least one course must be selected from each of the three core areas.

² Up to one credit of Independent Study for an internship may count as elective credit toward the degree. A written report must be approved by the advisor. This credit cannot be used toward fulfillment of the Industry Thesis or Thesis Research requirements.

Core Course Areas

Code	Title	Credits
Fundamentals of Process and Technology		
CBE 450	Process Design	3
CBE 470	Process Dynamics and Control	3
CBE 540	Polymer Science and Technology	3
CBE 541	Plastics and High Polymer Laboratory	1-3
CBE 770	Advanced Process Dynamics and Control ¹	3
E C E 412	Power Electronic Circuits	3
E C E 453	Embedded Microprocessor System Design	4
E C E/B M E 462	Medical Instrumentation	3
E C E/N E 528	Plasma Processing and Technology	3
E C E 549	Integrated Circuit Fabrication Laboratory	3
I SY E 415	Introduction to Manufacturing Systems, Design and Analysis	3
I SY E 605	Computer Integrated Manufacturing	3
M E 417	Transport Phenomena in Polymer Processing	3
M E 418	Engineering Design with Polymers	3
M E 419	Fundamentals of Injection Molding	3
M E 429	Metal Cutting	3
M E 437	Advanced Materials Selection	3
M E/E C E 439	Introduction to Robotics	3
M E 446	Automatic Controls	3

M E 447	Computer Control of Machines and Processes	3
M E 469	Internal Combustion Engines	3
M E/N E 565	Power Plant Technology	3
M E 514	Additive Manufacturing	3
M E/E C E 577	Automatic Controls Laboratory	4
M E 601	Special Topics in Mechanical Engineering (Fundamentals of Microfabrication) ²	1-3
M E 601	Special Topics in Mechanical Engineering (Design and Prototype Fabrication) ²	1-3
M E 601	Special Topics in Mechanical Engineering (Material Selection) ²	1-3
M E 717	Advanced Polymer Processing ¹	3
M E/E C E 739	Advanced Robotics ¹	3
M E 747	Advanced Computer Control of Machines and Processes ¹	3
M E/CBE 567	Solar Energy Technology	3
M S & E 434	Introduction to Thin-Film Deposition Processes	3
M S & E 461	Advanced Metal Casting	3
N E 405	Nuclear Reactor Theory	3
M S & E 465	Fundamentals of Heat Treatment	3
N E 405	Nuclear Reactor Theory	3
Fundamentals of Systems Engineering and Design		
CBE 430	Chemical Kinetics and Reactor Design	3
CIV ENGR 498	Construction Project Management	3
CIV ENGR 370	Transportation Engineering	3
CIV ENGR 498	Construction Project Management ²	3
COMP SCI/E C E 755	VLSI Systems Design	3
COMP SCI/E C E 756	Computer-Aided Design for VLSI ¹	3
E C E 427	Electric Power Systems	3
M E 418	Engineering Design with Polymers	3
M E 444	Design Problems in Elasticity	3
M E 535	Computer-Aided Geometric Design	3
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M E 601	Special Topics in Mechanical Engineering (Mechatronics in Control and Product Realization) ²	1-3
M E 601	Special Topics in Mechanical Engineering (Design of Computer Control Systems) ²	1-3
M E 601	Special Topics in Mechanical Engineering (Computer Aided Design and Analysis of Mechanical Systems) ²	1-3
M E 748	Optimum Design of Mechanical Elements and Systems ¹	3
MARKETNG 427	Enterprise Systems and Supply Chain Management	3
MARKETNG 440	Emerging Issues in New Product Development	3

MARKETNG 740	Emerging Issues in New Product Development	3
OTM 860	Sustainable Design of Innovative Products, Services and Systems	3
I SY E/M E 510	Facilities Planning	3
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I SY E 520	Quality Assurance Systems	3
I SY E/B M E 564	Occupational Ergonomics and Biomechanics	3
I SY E 575	Introduction to Quality Engineering	3
I SY E 612	Information Sensing and Analysis for Manufacturing Processes	3
I SY E 620	Simulation Modeling and Analysis	3
I SY E/M E 643	Performance Analysis of Manufacturing Systems	3
OTM 654	Production Planning and Control	3
OTM 770	Sustainable Approaches to System Improvement ^{1,3}	4
OTM 875	Seminar in Operations and Technology Management	3
STAT/M E 424	Statistical Experimental Design	3
Fundamentals of Business and Management		
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ACCT I S 301	Financial Reporting I	3
ACCT I S 710	Managerial Accounting	3
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FINANCE 757	Entrepreneurial Finance ¹	3
I SY E/PSYCH 653	Organization and Job Design	3
M H R 700	Organizational Behavior	3
M H R 715	Strategic Management of Innovation ¹	3
M H R 722	Entrepreneurial Management ¹	3
M H R 765	Contemporary Topics ¹	1-4
MARKETNG/ OTM 421	Fundamentals of Supply Chain Management	3
MARKETNG/ OTM 422	Logistics Management	3
MARKETNG 724	Strategic Global Sourcing	3
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OTM 758	Managing Technological and Organizational Change ¹	3
OTM 861	Strategic Systems and Sustainability	3

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NAMED OPTION-SPECIFIC POLICIES

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UW–Madison University Special

With program approval, students are allowed to count up to 15 credits of coursework numbered 400 or above taken as a UW–Madison Special student toward the minimum graduate residence credit requirement and the minimum graduate degree credit requirement; coursework numbered 700 or above may satisfy the minimum graduate coursework (50%) requirement. Coursework earned five or more years prior to admission is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

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CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence.

OTHER

Students enrolled in these programs are not permitted to accept teaching assistantships, project assistantships, research assistantships or other appointments that would result in a tuition waiver. Students in these programs cannot enroll in other graduate programs nor take courses outside the prescribed curriculum.

The Manufacturing Systems Engineering Program Guide, with academic information for students, can be found here (https://www.engr.wisc.edu/app/uploads/2016/02/MSE_Program_Guide_10-27-2013.pdf).

PROFESSIONAL DEVELOPMENT

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PEOPLE

PROFESSORS

- Frank Pfefferkorn (MSE Director; Mechanical Engineering) (https://directory.engr.wisc.edu/me/Faculty/Pfefferkorn_Frank)
- Gregory A. DeCroix (School of Business) Associate (https://directory.engr.wisc.edu/ie/Faculty/Decroix_Gregory)
- Neil Duffie (Mechanical Engineering)–Emeritus (https://directory.engr.wisc.edu/me/Faculty/Duffie_Neil)
- Mark Finster (School of Business) (<https://bus.wisc.edu/faculty/mark-finster>)
- Ananth Krishnamurthy (Industrial and Systems Engineering) (https://directory.engr.wisc.edu/ie/Faculty/Krishnamurthy_Ananth)
- Rafael Lazimy (School of Business) (<https://bus.wisc.edu/faculty/rafi-lazimy>)
- Jingshan Li (Industrial and Systems Engineering) (https://directory.engr.wisc.edu/ie/Faculty/Li_Jingshan)
- Miron Livny (Computer Science) (<http://www.cs.wisc.edu/people/miron>)
- Robert Lorenz (Mechanical Engineering) (https://directory.engr.wisc.edu/me/Faculty/Lorenz_Robert)
- Ella Mae Matusumura (School of Business) (<https://bus.wisc.edu/faculty/ella-mae-matsumura>)
- Sangkee Min (Mechanical Engineering) (https://directory.engr.wisc.edu/me/Faculty/Min_Sangkee)
- Tim Osswald (Mechanical Engineering) (https://directory.engr.wisc.edu/me/Faculty/Osswald_Tim)
- Robert Radwin (Industrial and Systems Engineering) (https://directory.engr.wisc.edu/ie/Faculty/Radwin_Robert)
- Bin Ran (Civil and Environmental Engineering) (https://directory.engr.wisc.edu/cee/faculty/ran_bin)
- Robert Rowlands (Mechanical Engineering) (https://directory.engr.wisc.edu/me/Faculty/Rowlands_Robert)
- Jeffrey S. Russell (Vice Provost for Lifelong Learning/ Dean of Continuing Studies) (<https://continuingstudies.wisc.edu/bios/russell-jeffrey.html>)
- Leyuan Shi (Industrial and Systems Engineering) (https://directory.engr.wisc.edu/ie/Faculty/Shi_Leyuan)
- Kumar Sridharan (Engineering Physics) (https://directory.engr.wisc.edu/ep/faculty/sridharan_kumar)
- Donald S. Stone (Material Science and Engineering) (https://directory.engr.wisc.edu/mse/Faculty/Stone_Donald)
- Krishnan Suresh (Mechanical Engineering) Associate (https://directory.engr.wisc.edu/me/faculty/suresh_krishnan)
- Lih-Sheng (Tom) Turng (Mechanical Engineering) (https://directory.engr.wisc.edu/me/Faculty/Turng_Lih-sheng)
- Raj Veeramani (Industrial and Systems Engineering) (https://directory.engr.wisc.edu/ie/Faculty/Veeramani_Raj)
- Xin Wang (Industrial and Systems Engineering) (https://directory.engr.wisc.edu/ie/Faculty/Wang_Xin)
- Urban Wemmerlov (School of Business) (<https://bus.wisc.edu/faculty/urban-wemmerlov>)
- Michael R. Zinn (Mechanical Engineering) (https://directory.engr.wisc.edu/me/Faculty/Zinn_Michael)
- Shiyu Zhou (Industrial and Systems Engineering) (https://directory.engr.wisc.edu/ie/Faculty/Zhou_Shiyu)

ENGINEERING PHYSICS

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE PROFESSIONAL/CERTIFICATES

- Engineering Mechanics, Doctoral Minor (p. 525)
- Engineering Mechanics, M.S. (p. 525)
- Engineering Mechanics, Ph.D. (p. 530)

- Nuclear Engineering and Engineering Physics, M.S. (p. 533)
- Nuclear Engineering and Engineering Physics, Ph.D. (p. 535)
- Nuclear Engineering, Doctoral Minor (p. 538)

PEOPLE

Faculty: Professors T. Allen, Blanchard, Bonazza, Crone, Fonck, Hegna, Henderson (chair), Lakes, Smith, Sovinec, Waleffe, Wilson; Associate Professors M. Allen, Schmitz, Witt; Assistant Professors Couet, Notbohm, Scarlet, Thevamaran; Affiliate Professors Bednarz, Bier, Graham, Ludois, Ma, Miller, Morgan, Nellis, Pfothhauer, Porter, Prabhakar, Robertson, Szlufarska, Thomadsen, Trujillo, Vanderby; Emeritus Professors Abdel-Khalik, Bisognano, Callen, Carbon, Conrad, Cook, Corradini, DeLuca, Drugan, Emmert, Hershkowitz, Kammer, Kulcinski, Mackie, Malkus, Moses, Plesha, Sandor, Schlack, Vogelsang

ENGINEERING MECHANICS, DOCTORAL MINOR

REQUIREMENTS

1. A minimum of 10 credits in E M A courses, including 3 credits in courses at the 700 level or above
 - a. All courses used for the minor must be 300 level or above taken after the bachelor's degree.
 - b. Ordinarily only one course (maximum of 3 credits) of independent study is allowed (E M A 599 Independent Study, E M A 690 Master's Research).
 - c. Research and thesis courses may not be used for the minor.
 - d. No more than 5 credits completed five or more years prior to admission to the Ph.D. major may be used.
 - e. Courses taken 10 or more years ago may not be used.
 - f. Courses taken pass/fail or for audit may not be used.
 - g. Courses with grades of S given in courses graded on a credit/no credit basis are acceptable.
2. A GPA of 3.0 must be maintained for the minor.
3. A maximum of 6 credits may be transferred from other institutions to satisfy these requirements.
4. The minor program must be approved by the department chair.
5. A student who has earned an M.S. degree in engineering mechanics will be considered to have fulfilled the minor requirements.

PEOPLE

Faculty: Professors T. Allen, Blanchard, Bonazza, Crone, Fonck, Hegna, Henderson (chair), Lakes, Smith, Sovinec, Waleffe, Wilson; Associate Professors M. Allen, Schmitz, Witt; Assistant Professors Couet, Notbohm, Scarlet, Thevamaran; Affiliate Professors Bednarz, Bier, Graham, Ludois, Ma, Miller, Morgan, Nellis, Pfothhauer, Porter, Prabhakar, Robertson, Szlufarska, Thomadsen, Trujillo, Vanderby; Emeritus Professors Abdel-Khalik, Bisognano, Callen, Carbon, Conrad, Cook, Corradini, DeLuca, Drugan, Emmert, Hershkowitz, Kammer, Kulcinski, Mackie, Malkus, Moses, Plesha, Sandor, Schlack, Vogelsang

ENGINEERING MECHANICS, M.S.

The master of science and doctor of philosophy degrees in engineering mechanics are offered within a graduate program covering contemporary areas in both theoretical and applied mechanics. With the guidance of a major professor, a program can be designed to meet an individual student's needs and interests.

The Engineering Mechanics M.S. program is appropriate for students with an undergraduate background in mechanics. Prospective M.S. students with an undergraduate background in science, who would like to transition into engineering, are encouraged to consider the Engineering Mechanics: Fundamentals of Applied Mechanics (p. 528) named option.

The program is broadly structured into several main areas of instruction and research interests in mechanics of materials and astronautics: continuum mechanics, computational mechanics, dynamics and vibration, fluid mechanics, nanomechanics, solid mechanics, and biomechanics. Related fields in which minor work may be done include civil and environmental engineering, chemical and biological engineering, electrical and computer engineering, materials science, mechanical engineering, nuclear engineering and engineering physics, physics, geological engineering and geology, mathematics, statistics, and computer science.

Current faculty research interests include adhesive-bonded joints; composites; failure criteria; analytical and computational solid mechanics; analytical and computational dynamics; multibody dynamics; analytical and computational active and passive space-structure control systems; dynamic stability; nonlinear fracture mechanics of traditional and advanced materials; continuum mechanics; modal analysis; nanomechanics and nanotribology; fluid-structure interaction; non-Newtonian fluid flow; structural mechanics; viscoelasticity; viscoplasticity; cell mechanics; and biomechanics.

Laboratories are well equipped for experimental testing and research; these include holography, Moire, atomic force microscopy, vibration testing, and other optical methods for experimental mechanics research. The department has access to collegewide facilities. The Wisconsin Laboratory for Structures and Materials Testing has facilities for testing large structures, fatigue and vibration labs, and complements the department's laboratories. The Materials Science Center provides state-of-the-art instrumentation, support facilities, and expert technical assistance for research and education in materials. Its facilities include scanning and transmission electron microscopes, image processing and analysis systems, surface and thin film characterization facilities, and x-ray diffraction facilities.

ADMISSIONS

The Graduate School sets minimum requirements for admissions (<https://grad.wisc.edu/admissions/requirements>). Academic program admission requirements are often more rigorous than those set by the Graduate School. Please check the program website (<https://www.engr.wisc.edu/department/engineering-physics/academics/ms-engineering-mechanics>) for details and admissions deadlines.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Admission and funding are separate decisions. Not all admitted students are offered support. International applicants must secure a research assistantship, teaching assistantship, fellowship, or independent funding before admission is final. A portion of the top domestic applicants are invited to visit Madison in March. The funding for RAs comes from faculty research grants. Each professor decides on his or her own RA offers. Funded students are expected to maintain full-time enrollment. See the program website (<https://www.engr.wisc.edu/department/engineering-physics/academics/ms-engineering-mechanics>) for additional information.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement 15 of the required 30 credits must be in graduate-level coursework from E M A, math, physics, chemistry, computer science, or any other engineering department except E P D; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements Courses in which grades of BC, C, or below are received cannot be counted toward the degree except as follows: 1) Credits of C will be allowed provided they are balanced by twice as many credits of A or by four times as many credits of AB, 2) Credits of BC will be allowed provided they are balanced by twice as many credits of AB or by an equal number of credits of A.

Assessments and Examinations Students who complete a thesis must defend it orally in front of a committee of three faculty members.

Language Requirements No language requirements.

REQUIRED COURSES

Program of study must include: At least 15 credits of Engineering Mechanics and Astronautics (http://guide.wisc.edu/courses/e_m_a) (E M A) courses at the 500 level or above; at least 6 of these 15 credits being in 700-level or above E M A courses; combined E M A course content of the student's undergraduate and graduate program of study must include at least 24 credits of 500-level or above mechanics coursework. As many as 3 seminar credits may be used to satisfy these requirements, but no more than one seminar credit can be taken in any given semester.

With thesis: a maximum of 12 credits of E M A 790 Master's Research and Thesis may be granted for the thesis.

Without thesis: a maximum of 12 credits of E M A 690 Master's Research may be counted toward the M.S. requirements.

NAMED OPTIONS (SUB-MAJORS)

A named option is a formally documented sub-major within an academic major program. Named options appear on the transcript with degree conferral.

- Engineering Mechanics: Fundamentals of Applied Mechanics, M.S. (p. 528)

years prior to admission to a master's is not allowed to satisfy requirements.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (https://www.engr.wisc.edu/app/uploads/2016/09/EM-GradGuide_Fall2016_09.22.16_fnl_w_chkfst.pdf) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 6 credits of graduate coursework from other institutions toward the minimum graduate degree credit requirement and the minimum graduate coursework (50%) requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW-Madison Undergraduate

With faculty approval, students who have received their undergraduate degree from UW-Madison may apply up to 7 credits numbered 400 or above toward the minimum graduate degree credit requirement. This work would not be allowed to count toward the 50% graduate coursework minimum unless taken at the 700 level or above. No credits can be counted toward the minimum graduate residence credit requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

With faculty approval, students who have received an ABET-accredited undergraduate degree (not including UW-Madison) may be eligible to apply up to 7 credits of their undergraduate coursework toward the Minimum Graduate Degree Credit Requirement. No credits can be counted toward the Minimum Graduate Residence Credit Requirement, nor the Minimum Graduate Coursework (50%) Requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW-Madison University Special

With program approval, students are allowed to count up to 15 credits of coursework numbered 400 or above taken as a UW-Madison Special student toward the minimum graduate residence credit requirement, and the minimum graduate degree credit requirement. UW-Madison coursework taken as a University Special student would not be allowed to count toward the 50% graduate coursework minimum unless taken at the 700 level or above. Coursework earned five or more

PROBATION

A semester GPA below 3.0 will result in the student being placed on academic probation. If a semester GPA of 3.0 is not attained during the subsequent semester of full time enrollment (or 12 credits of enrollment if enrolled part-time) the student may be dismissed from the program or allowed to continue for one additional semester based on advisor appeal to the Graduate School.

ADVISOR / COMMITTEE

Each student is required to meet with his or her advisor prior to registration every semester.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Students with a B.S. degree in engineering mechanics or equivalent are typically expected to complete the master of science in three semesters. Students with non-E M backgrounds will typically be permitted four semesters to complete their master's degree if more than 27 credits are required.

OTHER

Admission and funding are separate decisions. Not all admitted students are offered support. The funding for RAs comes from faculty research grants. Each professor decides on their own RA offers. Funded students are expected to maintain full-time enrollment.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Demonstrate a strong understanding of mathematical, scientific, and engineering principles in the field.
2. Demonstrate an ability to formulate, analyze, and solve advanced engineering problems.
3. Demonstrate creative, independent problem solving skills.
4. Apply the latest scientific and technological advancements, advanced techniques, and modern engineering tools to these problems.
5. Recognize and apply principles of ethical and professional conduct.

PEOPLE

Faculty: Professors T. Allen, Blanchard, Bonazza, Crone, Fonck, Hegna, Henderson (chair), Lakes, Smith, Sovinec, Waleffe, Wilson; Associate Professors M. Allen, Schmitz, Witt; Assistant Professors Couet, Notbohm, Scarlat, Thevamaran; Affiliate Professors Bednarz, Bier, Graham, Ludois,

Ma, Miller, Morgan, Nellis, Pfothenauer, Porter, Prabhakar, Robertson, Szlufarska, Thomadsen, Trujillo, Vanderby; Emeritus Professors Abdel-Khalik, Bisognano, Callen, Carbon, Conrad, Cook, Corradini, DeLuca, Drugan, Emmert, Hershkowitz, Kammer, Kulcinski, Mackie, Malkus, Moses, Plesha, Sandor, Schlack, Vogelsang

ENGINEERING MECHANICS: FUNDAMENTALS OF APPLIED MECHANICS, M.S.

This is a named option within the Engineering Mechanics M.S. (p. 525).

The Fundamentals of Applied Mechanics option of the Master of Science degree in Engineering Mechanics (FAM) is primarily designed for students with a science background who would like to transition to engineering. It may also be suitable for non-mechanics engineering students (electrical, chemical, etc.) who are interested in transitioning to mechanics. The goal of this program is to provide a bridge to careers in engineering or to a Ph.D program in mechanics. FAM is fast-paced; students are expected to complete the curriculum over a twelve-month period, starting in a summer session. Prospective graduate students with a background in mechanics are encouraged to consider our primary M.S. (p. 525) and Ph.D. in Engineering Mechanics (p. 530) programs.

ADMISSIONS

The Graduate School sets minimum requirements for admissions (<https://grad.wisc.edu/admissions/requirements>). Academic program admission requirements are often more rigorous than those set by the Graduate School. Please check the program website (<https://www.engr.wisc.edu/department/engineering-physics/academics/master-science-engineering-mechanics-fundamentals-applied-mechanics-option>) for details and admissions deadlines.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

The Department of Engineering Physics does not offer assistantship positions to its FAM students. The two semesters of the program are academically accelerated, and students are not expected to accommodate time for assistantship work.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
No	No	No	Yes	Yes

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules.

Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement 15 of the required 30 credits must be in graduate-level coursework from E M A and Engineering Physics; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements Courses in which grades of BC, C, or below are received cannot be counted toward the degree except as follows:
 1) Credits of C will be allowed provided they are balanced by twice as many credits of A or by four times as many credits of AB, 2) Credits of BC will be allowed provided they are balanced by twice as many credits of AB or by an equal number of credits of A.

Assessments and Examinations None.

Language Requirements No language requirements.

REQUIRED COURSES

Code	Title	Credits
Summer Session 3-6		
E M A 303	Mechanics of Materials	3
Recommended prerequisite (strongly recommended):		
E M A 202	Dynamics	3
Fall Semester 14		
M E/E M A 307	Mechanics of Materials Lab	1
E M A 506	Advanced Mechanics of Materials I	3
E M A 542	Advanced Dynamics	3
E M A/E P 547	Engineering Analysis I	3
E M A 601	Special Topics in Engineering Mechanics	1-3
E M A 405	Practicum in Finite Elements	3
or E M A 605	Introduction to Finite Elements	
Spring Semester 13		
E M A/E P 548	Engineering Analysis II	3
E M A 601	Special Topics in Engineering Mechanics	1-3
<i>Choose three of the following:</i> ¹ 9		
E M A/CIV ENGR/ M E 508	Composite Materials	
E M A 519	Fracture Mechanics	
E M A/M E 570	Experimental Mechanics	
E M A 611	Advanced Mechanical Testing of Materials	
E M A 622	Mechanics of Continua	
E M A 642	Satellite Dynamics	
E M A 705	Advanced Topics in Finite Elements	

¹ At least one of the three must be either E M A 705 Advanced Topics in Finite Elements, E M A 622 Mechanics of Continua, or E M A 642 Satellite Dynamics.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the

degree program faculty. Policies set by the academic degree program can be found below.

NAMED OPTION-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://www.engr.wisc.edu/department/engineering-physics/academics/master-science-engineering-mechanics-fundamentals-applied-mechanics-option>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

No transfer credits are allowed.

UW–Madison Undergraduate

With program approval, students are allowed to count up to 7 credits of coursework from the following list of courses:

Code	Title	Credits
E P/E M A 547	Engineering Analysis I	3
E P/E M A 548	Engineering Analysis II	3
E M A 303	Mechanics of Materials	3
E M A/M E 307	Mechanics of Materials Lab	1
E M A 405	Practicum in Finite Elements	3
E M A 405	Practicum in Finite Elements	3
E M A 506	Advanced Mechanics of Materials I	3
E M A/CIV ENGR/ M E 508	Composite Materials	3
E M A 519	Fracture Mechanics	3
E M A 542	Advanced Dynamics	3
E M A/M E 570	Experimental Mechanics	3
E M A 605	Introduction to Finite Elements	3
E M A 611	Advanced Mechanical Testing of Materials	3
E M A 622	Mechanics of Continua	3
E M A 642	Satellite Dynamics	3
E M A 705	Advanced Topics in Finite Elements	3

These may be counted toward the Minimum Graduate Degree Credit Requirement as applicable. No credits may be counted toward the minimum graduate residence credit requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison University Special

With program approval, students are allowed to count up to 15 credits of coursework numbered 400 or above taken as a UW–Madison Special student toward the minimum graduate residence credit requirement, and the minimum graduate degree credit requirement. UW–Madison coursework taken as a University Special student would not be allowed to count toward the 50% graduate coursework minimum unless taken at the 700 level or above. Coursework earned five or more years prior to admission to a master's is not allowed to satisfy requirements.

PROBATION

A semester GPA below 3.0 will result in the student being placed on academic probation. If a semester GPA of 3.0 is not attained during

the subsequent semester of full time enrollment (or 12 credits of enrollment if enrolled part-time) the student may be dismissed from the program or allowed to continue for one additional semester based on advisor appeal to the Graduate School.

ADVISOR / COMMITTEE

Each student is required to meet with his or her advisor prior to registration every semester.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Students are expected to complete the FAM degree program in one calendar year, i.e., 12 months (summer session plus two semesters). One additional semester is permitted to complete the requirements, if needed.

OTHER

Students in the accelerated Fundamentals of Applied Mechanics (M.S.) program are not eligible for graduate assistantships; as it is an accelerated program students are not expected to accommodate time for assistantship work.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

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ENGINEERING MECHANICS, PH.D.

The master of science and doctor of philosophy degrees in engineering mechanics are offered within a graduate program covering contemporary areas in both theoretical and applied mechanics. With the guidance of a major professor, a program can be designed to meet an individual student's needs and interests.

The program is broadly structured into several main areas of instruction and research interests in mechanics of materials and astronautics: continuum mechanics, computational mechanics, dynamics and vibration, fluid mechanics, nanomechanics, solid mechanics, and biomechanics. Related fields in which minor work may be done include civil and environmental engineering, chemical and biological engineering, electrical and computer engineering, materials science, mechanical

engineering, nuclear engineering and engineering physics, physics, geological engineering and geology, mathematics, statistics, and computer science.

Current faculty research interests include adhesive-bonded joints; composites; failure criteria; analytical and computational solid mechanics; analytical and computational dynamics; multibody dynamics; analytical and computational active and passive space-structure control systems; dynamic stability; nonlinear fracture mechanics of traditional and advanced materials; continuum mechanics; modal analysis; nanomechanics and nanotribology; fluid-structure interaction; non-Newtonian fluid flow; structural mechanics; viscoelasticity; viscoplasticity; cell mechanics; and biomechanics.

Laboratories are well equipped for experimental testing and research; these include holography, Moire, atomic force microscopy, vibration testing, and other optical methods for experimental mechanics research. The department has access to collegewide facilities. The Wisconsin Laboratory for Structures and Materials Testing has facilities for testing large structures, fatigue and vibration labs, and complements the department's laboratories. The Materials Science Center provides state-of-the-art instrumentation, support facilities, and expert technical assistance for research and education in materials. Its facilities include scanning and transmission electron microscopes, image processing and analysis systems, surface and thin film characterization facilities, and x-ray diffraction facilities.

ADMISSIONS

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GRADUATE SCHOOL RESOURCES

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PROGRAM RESOURCES

Admission and funding are separate decisions. Not all admitted students are offered support. International applicants must secure a research assistantship, teaching assistantship, fellowship, or independent funding before admission is final. A portion of the top domestic applicants are invited to visit Madison in March. The funding for RAs comes from faculty research grants. Each professor decides on his or her own RA

offers. Funded students are expected to maintain full-time enrollment. See the program website (<https://www.engr.wisc.edu/department/engineering-physics/academics/ms-engineering-mechanics>) for additional information.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 51 credits

Minimum Residence Credit Requirement 32 credits

Minimum Graduate Coursework Requirement 26 credits must be in graduate-level coursework from E M A, math, physics, chemistry, computer science, or any other engineering department except EPD; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements Courses in which grades of BC, C, or below are received cannot be counted toward the degree except as follows:
1) Credits of C will be allowed provided they are balanced by twice as many credits of A or by four times as many credits of AB, 2) Credits of BC will be allowed provided they are balanced by twice as many credits of AB or by an equal number of credits of A.

Assessments and Examinations All students must take the Ph.D. qualifying examination. After acceptance of the student's doctoral plan of study, the student must take an oral preliminary examination.

Final oral examination is required at the end of the thesis work.

Language Requirements No language requirements.

Doctoral Minor/Breadth Requirements Technical minor: 10 credits in either a single department or multiple departments as approved by the advisor.

REQUIRED COURSES

The Engineering Mechanics Ph.D. program requires 72 credits beyond the B.S. degree, where 18–24 of the credits are typically research thesis credits. Students must complete the Engineering Mechanics M.S. (p. 526) requirements and then complete at least two Engineering Mechanics and Astronautics (http://guide.wisc.edu/courses/e_m_a) (E M A) courses numbered 600 or above and an additional four courses numbered 700 level or above. The 700-level courses must include at least one E M A course, while the remainder may be from E M A or the list found in the student handbook, which is available from the program website (<https://www.engr.wisc.edu/department/engineering-physics/academics/ms-engineering-mechanics>). For students entering the program with an M.S. degree, three of the four 700-level courses must be E M A courses.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (https://www.engr.wisc.edu/app/uploads/2016/09/EM-GradGuide_Fall2016_09.22.16_fnl_w_chklst.pdf) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 6 credits of graduate coursework from other institutions toward the minimum graduate degree credit requirement and the minimum graduate coursework (50%) requirement.

Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

With faculty approval, students who have received their undergraduate degree from UW–Madison may apply up to 7 credits numbered 400 or above toward the minimum graduate degree credit requirement. This work would not be allowed to count toward the 50% graduate coursework minimum unless taken at the 700 level or above. No credits can be counted toward the minimum graduate residence credit requirement. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

With faculty approval, students who have received an ABET-accredited undergraduate degree (not including UW–Madison) may be eligible to apply up to 7 credits of their undergraduate coursework toward the Minimum Graduate Degree Credit Requirement. No credits can be counted toward the Minimum Graduate Residence Credit Requirement, nor the Minimum Graduate Coursework (50%) Requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison University Special

With program approval, students are allowed to count up to 15 credits of coursework numbered 400 or above taken as a UW–Madison Special student toward the minimum graduate residence credit requirement, and the minimum graduate degree credit requirement. UW–Madison coursework taken as a University Special student would not be allowed to count toward the 50% graduate coursework minimum unless taken at the 700 level or above. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

PROBATION

A semester GPA below 3.0 will result in the student being placed on academic probation. If a semester GPA of 3.0 is not attained during the subsequent semester of full time enrollment (or 12 credits of enrollment if enrolled part-time) the student may be dismissed from the program or allowed to continue for one additional semester based on advisor appeal to the Graduate School.

ADVISOR / COMMITTEE

Each student is required to meet with their advisor prior to registration every semester.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

The Ph.D. qualifying examination should be first taken no later than completion of the M.S. requirements, or the beginning of the fifth semester of graduate study, whichever comes first. Students entering the program with a master's degree in EMA, EP or NE from another institution, and taking the qualifying exam in that same major, must take the exam by the beginning of their third semester.

Students must submit the doctoral plan of study one month before the end of the semester following the one in which the qualifying exam is passed.

Candidates are expected to pass the Ph.D. preliminary examination no later than the end of the third year of graduate study, or by the end of the second regular semester following the one in which the Ph.D. qualifying examination was passed, whichever is later. A candidate who fails to take the preliminary examination within four years of passing the qualifying examination must retake the qualifying examination.

An oral examination on the findings of the Ph.D. research is required at the end of the thesis work. The candidate must apply for a warrant from the Graduate School through the student services office at least three weeks prior to the exam. The final oral examination must be taken within five years of passing the preliminary examination.

OTHER

Admission and funding are separate decisions. Not all admitted students are offered support. The funding for RAs comes from faculty research grants. Each professor decides on their own RA offers. Funded students are expected to maintain full-time enrollment.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Demonstrate an ability to synthesize knowledge from a subset of the biological, physical, and social sciences to help frame problems critical to the future of their discipline.
2. Conduct original research.
3. Demonstrate an ability to create new knowledge and communicate it to their peers.
4. Fosters ethical and professional conduct.

PEOPLE

Faculty: Professors T. Allen, Blanchard, Bonazza, Crone, Fonck, Hegna, Henderson (chair), Lakes, Smith, Sovinec, Waleffe, Wilson; Associate Professors M. Allen, Schmitz, Witt; Assistant Professors Couet, Notbohm, Scarlat, Thevamaran; Affiliate Professors Bednarz, Bier, Graham, Ludois, Ma, Miller, Morgan, Nellis, Pfothenauer, Porter, Prabhakar, Robertson, Szlufarska, Thomadsen, Trujillo, Vanderby; Emeritus Professors Abdel-Khalik, Bisognano, Callen, Carbon, Conrad, Cook, Corradini, DeLuca, Drugan, Emmert, Hershkowitz, Kammer, Kulcinski, Mackie, Malkus, Moses, Plesha, Sandor, Schlack, Vogelsang

NUCLEAR ENGINEERING AND ENGINEERING PHYSICS, M.S.

A broad program of instruction and research is offered in the principles of the interaction of radiation with matter and their applications, and in several areas of engineering physics. The program has strong engineering and applied science components. It emphasizes several areas of activity, including the research, design, development, and deployment of fission reactors; fusion engineering; plasma physics; radiation damage to materials; applied superconductivity and cryogenics; and large-scale computing in engineering science.

The master's degree may be pursued as a terminal degree in the fission area and in various engineering physics areas, but it is not generally recommended as a final degree in fusion research; students interested in fusion should plan to pursue the Ph.D. degree. About 40 percent of the current graduate students hold undergraduate degrees in nuclear engineering, about 40 percent in physics, and about 20 percent in other disciplines such as mechanical engineering, electrical engineering, mathematics, and materials science.

The department is considered to have one of the top five nuclear engineering programs in the nation over the last 40 years. It incorporates several research organizations including the Wisconsin Institute of Nuclear Systems, the Pegasus Toroidal Experiment Program, the Fusion Technology Institute, and the Center for Plasma Theory and Computation.

Research may be performed in areas including next generation fission reactor engineering; fluid and heat transfer modeling for transient analysis; reactor monitoring and diagnostics; fuel cycle analysis; magnetic and inertial confinement fusion reactor engineering, including the physics of burning plasmas, plasma-wall interactions, neutron transport, tritium breeding, radiation damage, and liquid-metal heat transfer; experimental and theoretical studies of plasmas including radio frequency heating, magnetic confinement, plasma instabilities, and plasma diagnostics; superconducting magnets and cryogenics; and theoretical and experimental studies of the damage to materials in fission and fusion reactors.

The department places considerable emphasis on establishing research teams or group research, as well as traditional research activity by individual faculty members and their students. The groups frequently involve faculty, scientific staff, and graduate students from several departments, adding a strong interdisciplinary flavor to the research.

Students sometimes perform thesis work at national laboratories such as Argonne National Laboratory, Idaho National Laboratory, Princeton Plasma Physics Laboratory, and Los Alamos National Laboratory.

ADMISSIONS

The Graduate School sets minimum requirements for admissions. (<https://grad.wisc.edu/admissions/requirements>) Academic program admission requirements are often more rigorous than those set by the Graduate School. Please check the program website (<https://www.engr.wisc.edu/department/engineering-physics/academics/ms-nuclear-engineering>) for details and admissions deadlines.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Admission and funding are separate decisions. Not all admitted students are offered support. International applicants must secure a research assistantship, teaching assistantship, fellowship, or independent funding before admission is final. A portion of the top domestic applicants are invited to visit Madison in March. The funding for RAs comes from faculty research grants. Each professor decides on his or her own RA offers. Funded students are expected to maintain full time enrollment. See the program website (<https://www.engr.wisc.edu/department/engineering-physics/academics/ms-nuclear-engineering>) for additional information.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules.

Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely

online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum
Credit
Requirement

Minimum
Residence
Credit
Requirement

Minimum
Graduate
Coursework
Requirement

15 of the required 30 credits must be in graduate-level coursework from nuclear engineering, math, physics, chemistry, computer science, or any other engineering department except E P D; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall
Graduate GPA
Requirement

Other Grade
Requirements

Courses in which grades of BC, C, or below are received cannot be counted toward the degree except as follows:
1) Credits of C will be allowed provided they are balanced by twice as many credits of A or by four times as many credits of AB, 2) Credits of BC will be allowed provided they are balanced by twice as many credits of AB or by an equal number of credits of A.

Assessments
and
Examinations

Students who do not complete a thesis must pass an oral exam. Students who complete a thesis must defend it orally in front of a committee of three faculty members.

Language
Requirements

No language requirements.

REQUIRED COURSES

The following courses, or courses with similar material content, must be taken prior to or during the course of study: N E 427 Nuclear Instrumentation Laboratory; N E 428 Nuclear Reactor Laboratory or N E 526 Laboratory Course in Plasmas; N E 408 Ionizing Radiation or N E/MED PHYS 569 Health Physics and Biological Effects.

Thesis track¹: maximum of 12 credits for thesis; at least 8 credits of N E courses 400 level or above; remaining credits (also 400 level or above) must be in appropriate technical areas; at least 9 credits must be 500 level and above; up to 3 credits can be seminar credits.

Non-Thesis track¹: at least 15 credits of N E courses at the 400 level or above; remaining 15 credits (also 400 level or above) must be in appropriate technical areas; at least 12 credits must be at the 500 level or above; up to 3 credits can be seminar credits.

For both the thesis and non-thesis options, only one course (maximum of 3 credits) of independent study (N E 699 Advanced Independent Study, N E 999 Advanced Independent Study) is allowed.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do

not appear in the Graduate School admissions application, and they will not appear on the transcript.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (https://www.engr.wisc.edu/app/uploads/2017/09/NEEP-GradGuide_Fall2017_final_wqual.pdf) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 6 credits of graduate coursework from other institutions toward the minimum graduate degree credit requirement and the minimum graduate coursework (50%) requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

With faculty approval, students who have received their undergraduate degree from UW–Madison may apply up to 7 credits numbered 400 or above toward the minimum graduate degree credit requirement. This work would not be allowed to count toward the 50% graduate coursework minimum unless taken at the 700 level or above. No credits can be counted toward the minimum graduate residence credit requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

With faculty approval, students who have received an ABET-accredited undergraduate degree (not including UW–Madison) may be eligible to apply up to 7 credits of their undergraduate coursework toward the Minimum Graduate Degree Credit Requirement. No credits can be counted toward the Minimum Graduate Residence Credit Requirement, nor the Minimum Graduate Coursework (50%) Requirement.

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years prior to admission to a master's is not allowed to satisfy requirements.

PROBATION

A semester GPA below 3.0 will result in the student being placed on academic probation. If a semester GPA of 3.0 is not attained during the subsequent semester of full time enrollment (or 12 credits of enrollment if enrolled part-time) the student may be dismissed from the program or allowed to continue for one additional semester based on advisor appeal to the Graduate School.

ADVISOR / COMMITTEE

Each student is required to meet with his or her advisor prior to registration every semester.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Candidates must pass an oral examination on completed coursework or on the thesis if the thesis option is chosen. Students have two attempts to pass this examination with at least one month elapsing between attempts. Candidates who have passed the Ph.D. qualifying examination will be excused from the oral master's examination.

OTHER

Admission and funding are separate decisions. Not all admitted students are offered support. International applicants must secure a research assistantship, teaching assistantship, fellowship, or independent funding before admission is final. A portion of the top domestic applicants are invited to visit Madison in March. The funding for RAs comes from faculty research grants. Each professor decides on their own RA offers. Funded students are expected to maintain full time enrollment.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Demonstrate a strong understanding of mathematical, scientific, and engineering principles in the field.
2. Demonstrate an ability to formulate, analyze, and solve advanced engineering problems.
3. Demonstrate creative, independent problem solving skills.
4. Apply the latest scientific and technological advancements, advanced techniques, and modern engineering tools to these problems.
5. Recognize and apply principles of ethical and professional conduct.

PEOPLE

Faculty: Professors T. Allen, Blanchard, Bonazza, Crone, Fonck, Hegna, Henderson (chair), Lakes, Smith, Sovinec, Waleffe, Wilson; Associate Professors M. Allen, Schmitz, Witt; Assistant Professors Couet, Notbohm, Scarlet, Thevamaran; Affiliate Professors Bednarz, Bier, Graham, Ludois, Ma, Miller, Morgan, Nellis, Pfothenauer, Porter, Prabhakar, Robertson, Szlufarska, Thomadsen, Trujillo, Vanderby; Emeritus Professors Abdel-Khalik, Bisognano, Callen, Carbon, Conrad, Cook, Corradini, DeLuca, Drugan, Emmert, Hershkowitz, Kammer, Kulcinski, Mackie, Malkus, Moses, Plesha, Sandor, Schlack, Vogelsang

NUCLEAR ENGINEERING AND ENGINEERING PHYSICS, PH.D.

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Research may be performed in areas including next generation fission reactor engineering; fluid and heat transfer modeling for transient analysis; reactor monitoring and diagnostics; fuel cycle analysis; magnetic and inertial confinement fusion reactor engineering, including the physics of burning plasmas, plasma-wall interactions, neutron transport, tritium breeding, radiation damage, and liquid-metal heat transfer; experimental and theoretical studies of plasmas including radio frequency heating, magnetic confinement, plasma instabilities, and plasma diagnostics; superconducting magnets and cryogenics; and theoretical and experimental studies of the damage to materials in fission and fusion reactors.

The department places considerable emphasis on establishing research teams or group research, as well as traditional research activity by individual faculty members and their students. The groups frequently involve faculty, scientific staff, and graduate students from several departments, adding a strong interdisciplinary flavor to the research.

Students sometimes perform thesis work at national laboratories such as Argonne National Laboratory, Idaho National Laboratory, Princeton Plasma Physics Laboratory, and Los Alamos National Laboratory.

ADMISSIONS

The Graduate School sets minimum requirements for admissions. (<https://grad.wisc.edu/admissions/requirements>) Academic program admission requirements are often more rigorous than those set by the Graduate School. Please check the program website (<https://www.engr.wisc.edu/department/engineering-physics/academics/ms-nuclear-engineering>) for details and admissions deadlines.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

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REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses

and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules.

Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum 51 credits

Credit Requirement

Minimum 32 credits

Residence Credit Requirement

Minimum 26 of the required 51 credits must be in graduate-level coursework from nuclear engineering, math, physics, chemistry, computer science, or any other engineering department except E P D; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle>).

Overall 3.00 GPA required.

Graduate GPA Requirement

Other Grade Requirements Courses in which grades of BC, C, or below are received cannot be counted toward the degree except as follows:
1) Credits of C will be allowed provided they are balanced by twice as many credits of A or by four times as many credits of AB, 2) Credits of BC will be allowed provided they are balanced by twice as many credits of AB or by an equal number of credits of A.

Assessments and Examinations Ph.D. qualifying examination is required of all students.

After acceptance of the student's doctoral plan of study, the student must take an oral preliminary examination.

Final oral examination is required at the end of the thesis work.

Language Requirements No language requirements.

Language Requirements

Doctoral Minor/Breadth Requirements All doctoral students are required to complete a 10-credit minor.

Doctoral Minor/Breadth Requirements

REQUIRED COURSES

Students must fulfill the coursework requirements for the nuclear engineering and engineering physics M.S. (<http://guide.wisc.edu/>)

graduate/engineering-physics/nuclear-engineering-engineering-physics-ms) degree whether receiving the M.S. degree or going directly to the Ph.D. They must complete an additional 9 credits of technical coursework at the graduate level, beyond the coursework requirement for the M.S. The candidate is also required to complete, as a graduate student, one course at the 400 level or above in each of the following areas: fission reactors; plasma physics and fusion; materials; engineering mathematics and computation (see below for example courses).

Candidates must take three 700-level courses; must satisfy the Ph.D. technical minor requirement; and must satisfy the Ph.D. non-technical minor requirement.

M.S. Coursework

The following courses, or courses with similar material content, must be taken prior to or during the course of study: N E 427 Nuclear Instrumentation Laboratory; N E 428 Nuclear Reactor Laboratory or N E 526 Laboratory Course in Plasmas; N E 408 Ionizing Radiation or N E/MED PHYS 569 Health Physics and Biological Effects.

Thesis track¹: maximum of 12 credits for thesis; at least 8 credits of N E courses 400 level or above; remaining credits (also 400 level or above) must be in appropriate technical areas; at least 9 credits must be 500 level and above; up to 3 credits can be seminar credits.

Non-Thesis track¹: at least 15 credits of N E courses at the 400 level or above; remaining 15 credits (also 400 level or above) must be in appropriate technical areas; at least 12 credits must be at the 500 level or above; up to 3 credits can be seminar credits.

For both the thesis and non-thesis options, only one course (maximum of 3 credits) of independent study (N E 699 Advanced Independent Study, N E 999 Advanced Independent Study) is allowed.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Area Coursework Examples

These courses are examples that would meet the requirement and are not meant to be a restricted list of possible courses.

Code	Title	Credits
Fission Reactors		
N E 405	Nuclear Reactor Theory	3
N E 408	Ionizing Radiation	3
N E 411	Nuclear Reactor Engineering	3
N E/MED PHYS 506	Monte Carlo Radiation Transport	3
N E/M E 520	Two-Phase Flow and Heat Transfer	3
N E 550	Advanced Nuclear Power Engineering	3
N E 555	Nuclear Reactor Dynamics	3
N E/M E 565	Power Plant Technology	3
N E/I SY E 574	Methods for Probabilistic Risk Analysis of Nuclear Power Plants	3
Plasma Physics & Fusion		
N E/E C E/ PHYSICS 525	Introduction to Plasmas	3
N E/E C E/ PHYSICS 527	Plasma Confinement and Heating	3

N E/E C E 528	Plasma Processing and Technology	3
N E 536	Feasibility St of Power from Controlled Thermonuclear Fusion	3
Materials		
N E/M S & E 423	Nuclear Engineering Materials	3
N E 541	Radiation Damage in Metals	3
PHYSICS 551	Solid State Physics	3
Engineering Mathematics & Computation		
E P/E M A 547	Engineering Analysis I	3
E P/E M A 548	Engineering Analysis II	3
COMP SCI/ MATH 513	Numerical Linear Algebra	3
COMP SCI/ MATH 514	Numerical Analysis	3
MATH 703	Methods of Applied Mathematics 1	3

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (https://www.engr.wisc.edu/app/uploads/2017/09/NEEP-GradGuide_Fall2017_final_wqual.pdf) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 6 credits of graduate coursework from other institutions toward the minimum graduate degree credit requirement and the minimum graduate coursework (50%) requirement. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW-Madison Undergraduate

With faculty approval, students who have received their undergraduate degree from UW-Madison may apply up to 7 credits numbered 400 or above toward the minimum graduate degree credit requirement. This work would not be allowed to count toward the 50% graduate coursework minimum unless taken at the 700 level or above. No credits can be counted toward the minimum graduate residence credit requirement. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

With faculty approval, students who have received an ABET-accredited undergraduate degree (not including UW-Madison) may be eligible to apply up to 7 credits of their undergraduate coursework toward the Minimum Graduate Degree Credit Requirement. No credits can be counted toward the Minimum

Graduate Residence Credit Requirement, nor the Minimum Graduate Coursework (50%) Requirement.

Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison University Special

With program approval, students are allowed to count up to 15 credits of coursework numbered 400 or above taken as a UW–Madison special student toward the minimum graduate residence credit requirement, and the minimum graduate degree credit requirement. UW–Madison coursework taken as a University Special student would not be allowed to count toward the 50% graduate coursework minimum unless taken at the 700 level or above. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

PROBATION

A semester GPA below 3.0 will result in the student being placed on academic probation. If a semester GPA of 3.0 is not attained during the subsequent semester of full time enrollment (or 12 credits of enrollment if enrolled part-time) the student may be dismissed from the program or allowed to continue for one additional semester based on advisor appeal to the Graduate School.

ADVISOR / COMMITTEE

Each student is required to meet with his or her advisor prior to registration every semester.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

The Ph.D. qualifying examination should be first taken no later than completion of the M.S. requirements, or the beginning of the fifth semester of graduate study, whichever comes first. Students entering the program with a master's degree in E M A, E P or N E from another institution, and taking the qualifying exam in that same major, must take the exam by the beginning of their third semester.

Students must submit the doctoral plan of study one month before the end of the semester following the one in which the qualifying exam is passed.

Candidates are expected to pass the Ph.D. preliminary examination no later than the end of the third year of graduate study, or by the end of the second regular semester following the one in which the Ph.D. qualifying examination was passed, whichever is later. A candidate who fails to take the preliminary examination within four years of passing the qualifying examination must retake the qualifying examination.

An oral examination on the findings of the Ph.D. research is required at the end of the thesis work. The candidate must apply for a warrant from the Graduate School through the student services office at least three weeks before the exam. The final oral examination must be taken within five years of passing the preliminary examination.

OTHER

Admission and funding are separate decisions. Not all admitted students are offered support. International applicants must secure a Research Assistantship, Teaching Assistantship, fellowship, or independent funding before admission is final. A portion of the top domestic applicants are invited to visit Madison in March. The funding for RAs comes from faculty research grants. Each professor decides on their own RA offers. Funded students are expected to maintain full time enrollment.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Demonstrate an ability to synthesize knowledge from a subset of the biological, physical, and social sciences to help frame problems critical to the future of their discipline.
2. Conduct original research.
3. Demonstrate an ability to create new knowledge and communicate it to their peers.
4. Fosters ethical and professional conduct.

PEOPLE

Faculty: Professors T. Allen, Blanchard, Bonazza, Crone, Fonck, Hegna, Henderson (chair), Lakes, Smith, Sovinec, Waleffe, Wilson; Associate Professors M. Allen, Schmitz, Witt; Assistant Professors Couet, Notbohm, Scarlat, Thevamaran; Affiliate Professors Bednarz, Bier, Graham, Ludois, Ma, Miller, Morgan, Nellis, Pfothenhauer, Porter, Prabhakar, Robertson, Szlufarska, Thomadsen, Trujillo, Vanderby; Emeritus Professors Abdel-Khalik, Bisognano, Callen, Carbon, Conrad, Cook, Corradini, DeLuca, Drugan, Emmert, Hershkowitz, Kammer, Kulcinski, Mackie, Malkus, Moses, Plesha, Sandor, Schlack, Vogelsang

NUCLEAR ENGINEERING, DOCTORAL MINOR

REQUIREMENTS

1. A minimum of four N E courses (http://guide.wisc.edu/courses/n_e), 400 level or above, are required for the minor. These are decided in consultation with the student's advisor.
 - a. All courses used for the minor must be 400 level or above and taken after the bachelor's degree.
 - b. Ordinarily only one course (maximum of 3 credits) of independent study is allowed (N E 699 Advanced Independent Study, N E 999 Advanced Independent Study).
 - c. Research and thesis courses may not be used for this minor.

- d. No more than 5 credits completed five or more years prior to admission to the doctoral major may be used.
 - e. Courses taken 10 or more years ago may not be used.
 - f. Courses taken pass/fail or for audit may not be used.
 - g. Courses with grades of S given in courses graded on a credit/no credit basis are acceptable.
2. A GPA of 3.0 must be maintained for the minor.
 3. A maximum of 6 credits may be transferred from other institutions to satisfy the minor requirements.
 4. The minor program must be approved by the minor professor, appointed by the department chair.
 5. A student who has earned an M.S. degree in nuclear engineering and engineering physics (and is currently in a different doctoral program) will be considered to have fulfilled the minor requirements.

PEOPLE

Faculty: Professors T. Allen, Blanchard, Bonazza, Crone, Fonck, Hegna, Henderson (chair), Lakes, Smith, Sovinec, Waleffe, Wilson; Associate Professors M. Allen, Schmitz, Witt; Assistant Professors Couet, Notbohm, Scarlet, Thevamaran; Affiliate Professors Bednarz, Bier, Graham, Ludois, Ma, Miller, Morgan, Nellis, Pfothenhauer, Porter, Prabhakar, Robertson, Szlufarska, Thomadsen, Trujillo, Vanderby; Emeritus Professors Abdel-Khalik, Bisognano, Callen, Carbon, Conrad, Cook, Corradini, DeLuca, Drugan, Emmert, Hershkowitz, Kammer, Kulcinski, Mackie, Malkus, Moses, Plesha, Sandor, Schlack, Vogelsang

ENGLISH

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Creative Writing, Doctoral Minor (p. 539)
- Creative Writing, MFA (p. 540)
- English Linguistics, Doctoral Minor (p. 542)
- English, Doctoral Minor (p. 542)
- English, M.A. (p. 542)
- English, Ph.D. (p. 545)
- Interdisciplinary Theatre Studies, Doctoral Minor (p. 548)
- Interdisciplinary Theatre Studies, M.A. (p. 549)
- Interdisciplinary Theatre Studies, Ph.D. (p. 551)
- Teaching English to Speakers of Other Languages, Graduate/Professional Certificate (p. 553)

PEOPLE

Faculty: Professors Castronovo (chair), Auerbach, Barry, Begam, Bernard-Donals, Bow, Britland, Dharwadker, Foys, Friedman, Guyer, Hill, Johnson, Keller, Kelley, Kercheval, Mitchell, Olaniyan, Ortiz-Robles, Purnell, Raimy, Sherrard-Johnson, Steele, Wanner, M. Young, R. Young, Zimmerman; Associate Professors Allewaert, Bearden, Cooper, Olson, Trotter, Samuels, Valenza, Vieira, Yu, Zweck; Assistant Professors Calhoun, Cho, Fawaz, Vareschi

CREATIVE WRITING, DOCTORAL MINOR

The program in creative writing also offers doctoral students at the University of Wisconsin–Madison the chance to incorporate creative writing as part of their course of studies in the form of a minor in creative writing.

ADMISSIONS

Application for admission to the minor consists of submitting to the MFA director, via Ron Kuka (rfkuka@wisc.edu), a writing sample and a one- to two-page, single-spaced personal statement justifying the minor's relevance to the student's current or future research and career plans.

Admission to individual workshops is not guaranteed for any student, but is based on evaluation of a writing sample that must be submitted to the instructor by November 1 for spring semester workshops and by April 1 for fall semester workshops. Writing samples should consist of either 10 pages of single-spaced poems, with each new poem beginning on a new page, or up to 30 double-spaced pages of fiction. Admission to the Internal Minor is determined by a committee composed of Creative Writing Program faculty. Admission is based on the quality of the writing sample, performance in the prerequisite workshop, and the personal statement. Ph.D. students admitted into the Internal Minor in Creative Writing are guaranteed admission to either an advanced undergraduate or graduate-level workshops, though admission to all graduate workshops is at the discretion of the instructor. Graduate students enrolled or interested in the Creative Writing Minor are encouraged to consult a member of the Creative Writing Program faculty prior to applying to the Minor and prior to choosing a workshop.

Please note that creative writing classes often appear to be closed even when there is room for additional students. This is done when all or some of the students in a workshop are admitted on the basis of writing samples, and is especially true of graduate-level workshops. If you are interested in a class that appears to be closed, please contact Ron Kuka (rfkuka@wisc.edu) to determine the actual enrollment status.

REQUIREMENTS

Students must complete 9 credits of graduate or advanced undergraduate workshops and 3 credits of an elective that is relevant to the student's work in creative writing (12 credits total).

For Ph.D. students in the Department of English whose major field of study is in the program of Literary Studies, Composition & Rhetoric, or English Language & Linguistics, the elective must be selected in consultation with the department's director of graduate studies (dgs@english.wisc.edu).

For Ph.D. students from other departments/programs, the elective must be selected in consultation with the student's academic advisor. Ph.D. students wishing to apply for an Internal or External Minor must have already completed or be currently enrolled in an advanced-level undergraduate or graduate creative writing workshop (the "prerequisite workshop").

PEOPLE

Faculty: Professors Barry, Johnson, Kercheval, Mitchell, Wallace; Assistant Professor Evans

CREATIVE WRITING, MFA

The program in creative writing offers a two-year master of fine arts degree in creative writing in the areas of fiction and poetry. The MFA program is a small program within a large and vibrant writing community. The program typically admits six new students each year.

The MFA program is the only program of its kind to have an "alternating genre" admissions policy. The program admits fiction writers in even-numbered years and poets in odd-numbered years. This alternating admissions schedule allows the program to provide a 2 to 1 student/teacher ratio and lets fiction instructors focus entirely on one group of fiction writers, and poetry instructors on one group of poets for the two-year instructional period.

ADMISSIONS

Details about the admissions process can be found here (<https://creativewriting.wisc.edu/gradapply.html>).

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Prospective students should see the program website (<https://creativewriting.wisc.edu/teachingaid.html#financialaid>) for funding information.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 42 credits

Minimum Residence Credit Requirement 30 credits

Minimum Graduate Coursework Requirement Half of degree coursework (27 credits out of 42 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements To be considered a student in good standing in the MFA program in creative writing, a student must maintain a cumulative GPA of at least 3.0 and receive no grade lower than an AB in any creative writing course. If a student does not meet this requirement, or if a student receives an F in any course, the student could no longer be considered to be in good standing. Consequently, a student who is not in good standing could have their TAsip or other financial aid support revoked, and could be asked to leave the program.

Assessments and Examinations MFA candidates must submit a publishable written thesis in the genre in which they were admitted (fiction or poetry).

Language Requirements No language requirements.

REQUIRED COURSES

Code	Title	Credits
Writing Workshops		9
Students take workshops in their primary genre (fiction or poetry) which are held in the first, second, and third semesters. Workshops include:		
ENGL 781	Graduate Fiction Workshop (Fiction Genre)	
ENGL 782	Graduate Poetry Workshop (Poetry Genre)	
ENGL 783	Creative Writing Pedagogy Seminar (Both Fiction and Poetry Genres)	
Pedagogy (during the first semester)		3
Thesis ¹		15
ENGL 785	MFA Thesis	
Electives ²		15
Total Credits		42

¹ Students take 3 credits in each of the first, second and third semesters, then 6 thesis credits in the fourth semester. These are not courses—rather, they're the means by which the University gives MFAs credit for their independent writing.

² **15 credits of electives** drawn from appropriate courses across the curriculum. While students are expected to focus on and produce book-length theses by the end of their two years here, they are also encouraged to pursue other intellectual interests via these electives. In the past, MFA students have fulfilled their elective requirements by enrolling in literature courses, studying foreign languages, pursuing other artistic interests such as dance, book-making, and classical guitar, augmenting research for historical novels by taking appropriate history classes. MFA students may also hone their writing skills in other genres by taking intermediate and advanced undergraduate workshops and graduate level workshops in genres outside the one for which they were admitted, as electives with the permission of the instructor. Students may also take up to 6 elective credits in the form of additional thesis hours in the second and third semesters.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 12 credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

With program approval, students are allowed to count no more than 10 credits of coursework numbered 300 or above taken as a UW–Madison University Special student. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The MFA advisor (sometimes referred to as the MFA program director) will review student academic performance and conduct in all coursework to determine that students are making satisfactory progress toward the degree. If at any time the MFA advisor determines that a student's academic performance and/or conduct has not been satisfactory, the MFA advisor, with the input and concurrence of the voting members of the Creative Writing Steering Committee, may place the student on probation or may dismiss the student from the program. The period of probation will be one semester in duration. Prior to the end of the probationary period the MFA advisor will review the student's performance and conduct and decide, with the input and concurrence of the voting members of the Creative Writing Steering Committee, to reinstate or dismiss the student.

ADVISOR / COMMITTEE

The current MFA advisor (sometimes referred to as the MFA program director) advises all MFA students.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

It is expected that the MFA thesis be completed in May of the second year in the program.

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Each student receives financial aid in the form of teaching assistantships, prize scholarships, tuition remission, and health benefits.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Develop the creative and technical skills necessary to conceive, execute, and revise original literary work in a student's chosen genre (fiction or poetry).
2. Demonstrate sensitivity to language and style on both the artistic and technical levels.
3. Develop the critical, analytical, and editing skills necessary to evaluate literary works in progress, both in the student's own work-in-progress, and in that of the student's peers.
4. Develop the ability to read literary works not only for their social, historical, intellectual, formal, and interpretive value, but for their capacity to inspire and generate new work, and to see in a finished work the process of its being made.
5. Develop through study and practice the pedagogical skills necessary to teach creative writing courses to undergraduate students.
6. Demonstrate understanding of professional and pedagogical practices and opportunities within and related to the field of creative writing.
7. Recognize and apply principles of ethical conduct with respect to one's work.
8. Engage with local communities of creative writers.

PEOPLE

Faculty: Professors Barry, Johnson, Kercheval, Mitchell, Wallace; Assistant Professor Evans

ENGLISH LINGUISTICS, DOCTORAL MINOR

Ph.D. students in other departments may elect an external minor in English Linguistics. The requirement for the English Linguistics minor is a plan of 12 credits in courses to be selected in consultation with an English Language and Linguistics (ELL) faculty member and the ELL Graduate Advisor.

Students pursuing the minor are encouraged to take ENGL 713 Topics in Contemporary English Linguistics (a graduate research and professionalism course). Any course in English Language and Linguistics may be included in the minor course plan with written approval by the ELL Graduate Advisor. To learn more about the courses, to obtain approval for a plan of courses, and seek permission to register in specific courses, contact the Graduate Advisor in English Language and Linguistics.

The minor in English Linguistics is available to English Ph.D. students focusing on Composition and Rhetoric or Literary Studies, but not English Language and Linguistics.

ENGLISH, DOCTORAL MINOR

REQUIREMENTS

Doctoral candidates from other programs who wish to pursue a minor in English must secure advance approval of their proposed course of study from the director of graduate studies in English. A minor in English consists of 12 credits of graduate work with no grade lower than B. The department offers a minor in English (with concentrations in literature or composition and rhetoric), a minor in English Linguistics (p. 542), and a minor in Creative Writing. (p. 539)

PEOPLE

Faculty: Professors Castronovo (chair), Auerbach, Barry, Begam, Bernard-Donals, Bow, Britland, Dharwadker, Foys, Friedman, Guyer, Hill, Johnson, Keller, Kelley, Kercheval, Mitchell, Olaniyan, Ortiz-Robles, Purnell, Raimy, Sherrard-Johnson, Steele, Wanner, M. Young, R. Young, Zimmerman; Associate Professors Allewaert, Bearden, Cooper, Olson, Trotter, Samuels, Valenza, Vieira, Yu, Zweck; Assistant Professors Calhoun, Cho, Fawaz, Vareschi

ENGLISH, M.A.

The Department of English offers a Ph.D. in English (with specializations in composition and rhetoric, English language and linguistics, or literary studies); an MFA in creative writing; and a terminal M.A. in English with a specialization in applied English linguistics. Students enrolled in the literary studies Ph.D. specialization become eligible for an M.A. English degree in the literary studies area when they successfully complete the first-stage doctoral requirements. The literary studies specialization does not offer an M.A. apart from the doctoral program. Students enrolled in the composition and rhetoric track in English must have a master's degree in hand prior to matriculation in the doctoral program.

The M.A. program with a specialization in applied English linguistics provides broad training in applied English linguistics and second language acquisition (SLA). Students who graduate from this program will be well prepared to teach English as a second language, and those who do exceptionally well may apply for admission to the doctoral program in the English language and linguistics area.

Regarding catalog course listings: graduate seminars in English reflect the faculty's current areas of research and therefore change importantly from year to year. Please consult the department website for more detailed information.

ADMISSIONS

The department requires an applicant to have a bachelor's or master's degree from an accredited institution. Applicants for the M.A. and Ph.D. degrees typically demonstrate competence in the fields of English literature or language, American studies, or linguistics, but the department also welcomes applications from superior students who

have not had the equivalent of an English major. Such students may be asked to supplement the normal program of study by completing a small number of coverage courses. Applicants for the MFA degree are expected to demonstrate competence and promise in the genre in which they are applying. MFA students are not necessarily expected to be knowledgeable in the same areas specified for M.A. and Ph.D. applicants. Applicants for the Ph.D. specialization in composition & rhetoric may have bachelors and masters from a variety of fields beyond English but must complete a master's degree or equivalent before beginning the doctoral program. All graduate degree programs in the department except the MFA normally require Graduate Record Exam (GRE) scores no more than five years old. International students whose native language is not English are required to take the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS).

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Prospective students should see the program website (<https://english.wisc.edu/graduate-program/prospective-students/funding>) for funding information.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement M.A.—applied English linguistics track: 33 credits
M.A.—literary studies track: 30 credits

Minimum Residence Credit Requirement M.A.—applied English linguistics track: 16 credits
M.A.—literary studies track: 18 credits

Minimum Graduate Coursework Requirement M.A.—applied English linguistics track: All required courses in the MA track in applied English linguistics must be taken for graduate credit when available. At least 21 credits out of the required 33 taken in graduate level work.

M.A.—literary studies track: All coursework for this degree (30 credits) must be taken in graduate-level coursework.

Courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Contact the program for information on required assessments and examinations.

Language Requirements Contact the program for information on any language requirements.

REQUIRED COURSES

All coursework for this degree (30 credits) must be completed in English courses numbered 700 or above (with the exception of ENGL/MEDIEVAL 520 Old English and ENGL/MEDIEVAL 521 Advanced Old English Literature).

Applied English Linguistics (Terminal MA) track:

Code	Title	Credits
Required Courses		

ENGL 314	Structure of English	3
ENGL 315	English Phonology	3
ENGL 514	English Syntax	3
ENGL 516	English Grammar in Use	3
Electives ²		21
ENGL 316	English Language Variation in the U.S.	
ENGL 318	Second Language Acquisition	
ENGL 413	English Words: Grammar, Culture, Mind	
ENGL 414	Global Spread of English	
ENGL 415	Introduction to TESOL Methods	
ENGL 416	English in Society	
ENGL 417	History of the English Language	
ENGL/ GEN&WS 419	Gender and Language	
ENGL 420	Topics in English Language and Linguistics	
ENGL/ MEDIEVAL 520	Old English	
ENGL 708	Advanced English Syntax	
ENGL 709	Advanced English Phonology	
ENGL/SOC 710	Interaction Analysis: Talk as Social Organization	
ENGL 711	Research Methods in Applied Linguistics	
ENGL 713	Topics in Contemporary English Linguistics	
ENGL 715	Advanced Second Language Acquisition	
ENGL 905	Seminar-Topics in Applied English Linguistics	
ENGL 906	Seminar-The English Language	
Total Credits		33

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

² Of the 21 elective credits, at least six credits must be in 700 level courses and at least three credits in 900 level courses.

Literary Studies Track

Students interested in the M.A. track should refer to the Ph.D. (p. 546) for more information on requirements.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding

general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

M.A.–applied English linguistics track: With program approval, students are allowed to count no more than 6 credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

M.A.–literary studies track: With program approval, students are allowed to count no more than 9 (typically 3 to 6) credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's is not allowed to satisfy requirements.

UW–Madison Undergraduate

M.A.–applied English linguistics track: With program approval, students are allowed to count no more than 6 credits of relevant coursework from UW–Madison undergraduate coursework. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

M.A.–literary studies track: No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

With program approval, students are allowed to count no more than 6 credits of coursework numbered 300 or above taken as a UW–Madison Special student. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

12 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Graduate programs in English are full-time programs. Students are expected to enroll full-time until required coursework is completed. Funding available for students pursuing the M.F.A. and Ph.D. degrees.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Articulates research problems, potentials, and limits with respect to theory, knowledge, or practice within the field of study.
2. Formulates ideas, concepts, designs, and/or techniques beyond the current boundaries of knowledge within the field of study demonstrating breadth as well as depth.
3. Conducts research according to recognized standards in the field and crafts persuasive and original arguments that make a substantive contribution to the field.
4. Communicates complex ideas in a clear and understandable manner that advances and articulates the value of contributions of the field of study to society
5. Demonstrates knowledge and practice of pedagogy consistent with discipline and with field of study
6. Fosters ethical and professional conduct.

PEOPLE

Faculty: Professors Castronovo (chair), Auerbach, Barry, Begam, Bernard-Donals, Bow, Britland, Dharwadker, Foys, Friedman, Guyer, Hill, Johnson, Keller, Kelley, Kercheval, Mitchell, Olaniyan, Ortiz-Robles, Purnell, Raimy, Sherrard-Johnson, Steele, Wanner, M. Young, R. Young, Zimmerman; Associate Professors Allewaert, Bearden, Cooper, Olson, Trotter, Samuels, Valenza, Vieira, Yu, Zweck; Assistant Professors Calhoun, Cho, Fawaz, Vareschi

ENGLISH, PH.D.

The Department of English offers a Ph.D. in English (with specializations in composition and rhetoric, English language and linguistics, or literary studies); an MFA in creative writing; and a terminal M.A. in English with a specialization in applied English linguistics. Students enrolled in the literary studies Ph.D. specialization become eligible for an M.A. English degree in the literary studies area when they successfully complete the first-stage doctoral requirements. The literary studies specialization does not offer an M.A. apart from the doctoral program. Students enrolled in the composition and rhetoric track in English must have a master's degree in hand prior to matriculation in the doctoral program. An optional path to the literary studies and composition and rhetoric doctoral programs is through the Afro-American Studies Bridge (<https://english.wisc.edu/grad-afroam.htm>).

The doctoral program in the literary studies area offers a rigorous course of study leading to the completion of a doctoral dissertation in any field of English, American, or Anglophone literature and culture, or in any field of literary theory and criticism. The program prepares students for active careers in research and teaching at the university, and combines a sharp focus on conceptual approaches to literary and cultural works with a commitment to broad coverage of the field of Anglophone literature. Graduate seminars taken during the first phases of the doctoral program serve to prepare students to develop research projects for the dissertation. As they progress toward the Ph.D., students are invited to consider interdisciplinary subspecialties: literary theory and criticism, visual studies, ecocriticism and environmentalism, transnational and global literature, material culture, print culture and book history, digital humanities, disability studies, gender studies, race and ethnic studies, feminist theory, LGBTQ literature and queer theory, postcolonial studies. The program provides opportunities for teaching writing and literature and for administrative experience.

The doctoral program in the composition and rhetoric area offers a vibrant intellectual community of scholar-teachers and supports research in a wide array of subfields, including literacy studies, composition theory & pedagogy, rhetorical studies, and writing centers/writing program administration. Faculty expertise in literacy, composition, and rhetoric includes emphases in migration, race and ethnicity, critical theory, historical and ethnographic methods, space and place, environmental rhetoric, science writing, visual rhetoric, and transnationalism. This multidisciplinary program with a low faculty-to-student ratio offers doctoral students close contact with faculty mentors throughout coursework and dissertation research. It also maintains close collaborations with campus programs in Communication Arts, Linguistics, and Curriculum and Instruction, among others. The program offers varied opportunities for professional development in teaching, research, and writing program administration and is recognized for its commitment to training well-rounded professionals in the field of composition and rhetoric.

The English doctoral program in the English language and linguistics area is intended for students with a solid foundation at the master's level in the English language, applied linguistics, and related fields. Through a program of course work and seminars, doctoral students attain advanced knowledge in the core areas of English syntax and phonology and in the applied areas of second language acquisition, discourse analysis, and language variation and change. On reaching the dissertation stage, students pursue individual research in close cooperation with their faculty advisor. In recent years, students have

written dissertations on code-switching, critical pedagogy, interactional competence, conversation analysis, syntactic problems in second language acquisition, classroom discourse, and psycholinguistics. Graduates of the program have taken faculty positions at universities throughout the country.

Regarding catalog course listings: graduate seminars in English reflect the faculty's current areas of research and therefore change importantly from year to year. Please consult the department website for more detailed information.

ADMISSIONS

The department requires an applicant to have a bachelor's or master's degree from an accredited institution. Applicants for the M.A. and Ph.D. degrees typically demonstrate competence in the fields of English literature or language, American studies, or linguistics, but the department also welcomes applications from superior students who have not had the equivalent of an English major. Such students may be asked to supplement the normal program of study by completing a small number of coverage courses. Applicants for the MFA degree are expected to demonstrate competence and promise in the genre in which they are applying. MFA students are not necessarily expected to be knowledgeable in the same areas specified for M.A. and Ph.D. applicants. Applicants for the Ph.D. specialization in composition & rhetoric may have bachelors and masters from a variety of fields beyond English but must complete a master's degree or equivalent before beginning the doctoral program. All graduate degree programs in the department except the MFA normally require Graduate Record Exam (GRE) scores no more than five years old. International students whose native language is not English are required to take the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS).

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Prospective students should see the program website (<https://english.wisc.edu/graduate-program/prospective-students/funding>) for funding information.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement Ph.D.—composition and rhetoric track: 51 credits
Ph.D.—English language and linguistics track: 63 credits
Ph.D.—literary studies track: 51 credits

Minimum Residence Credit Requirement 32 credits

Minimum Graduate Coursework Requirement At least half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Doctoral students are required to take a comprehensive preliminary/oral examination after they have cleared their record of all Incomplete and Progress grades (other than research and thesis). Deposit of the doctoral dissertation in the Graduate School is required.

Language Requirements Contact the program for information on any language requirements.

Doctoral Minor/Breadth Requirements All doctoral students are required to complete a minor.

REQUIRED COURSES

Composition and Rhetoric Track ¹

Code	Title	Credits
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Composition-Rhetoric Major

Students take six courses in consultation with their advisor.

Doctoral Minor

Students complete four courses toward a doctoral minor.

Research Methods/Tools

Students take two courses in consultation with their advisor.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

The following Composition-Rhetoric courses are offered on a regular basis: ENGL 700 (every Fall), ENGL 702 and ENGL 703 (in alternating years), and ENGL 799 for specialized coursework.

English Language and Linguistics Track ¹

In order to be granted candidacy, students must complete a minimum of seven (7) graduate courses or seminars beyond coursework taken for the M.A. (p. 543) and approved by the English Language and Linguistics Ph.D. advisor. At least four of these courses/seminars must be taken in the English Department (<http://guide.wisc.edu/courses/engl>).

For the doctoral minor, usually four courses (12 credits) are to be chosen by the student and the minor advisor in consultation with the student's advisor. Although superior work in these courses is usually deemed sufficient to satisfy the requirement, formal examination in the minor remains at the discretion of the minor department.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Literary Studies Track ¹

For the M.A. degree en route to the Ph.D. degree, students take a total of ten courses (for a total of 30 credits) in the Department of English and demonstrate competence in one foreign language. To ensure

breadth of knowledge, the course requirements call for intensive study in different chronological and geographical areas. There is room too for electives within this stage of the program. These requirements must be completed before the beginning of the fifth semester. When the first stage requirements are completed, provided the student meets the program standards for satisfactory progress, he or she will be entitled to move into the second stage of the program.

Once this broad foundation has been built, the second, more focused stage allows students to work in an area or areas of specialization, and to begin to create an ongoing research agenda. During the three semesters typically devoted to this stage, students choose three English (Literary Studies) courses beyond those taken already. In addition, using the 10-12 credits of minor courses that the Literary Studies Ph.D. track requires, students deepen their knowledge and diversify their skills by cross-disciplinary work. Successful completion of this coursework, demonstration of competence in either one foreign language at the advanced proficiency level (equivalent to fifth and sixth semester language study) or two languages at the adequate proficiency level (equivalent to third and fourth semesters of language study) is also required.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

Ph.D.—composition and rhetoric track, and English language and linguistics track: With program approval, students are allowed to count no more than 6 credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree or earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

Ph.D.—literary studies track: With program approval, students are allowed to count no more than 9 (typically 3 to 6) credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree or earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

With program approval, students are allowed to count no more than 6 credits of coursework numbered 300 or above taken as a UW–Madison Special student. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies. An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor.

To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

12 credits

TIME CONSTRAINTS

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

OTHER

Graduate programs in English are full-time programs. Students are expected to enroll full-time until required coursework is completed. Funding available for students pursuing the M.F.A. and Ph.D. degrees.

PROFESSIONAL DEVELOPMENT**GRADUATE SCHOOL RESOURCES**

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Articulates research problems, potentials, and limits with respect to theory, knowledge, or practice within the field of study.
2. Formulates ideas, concepts, designs, and/or techniques beyond the current boundaries of knowledge within the field of study demonstrating breadth as well as depth.
3. Conducts research according to recognized standards in the field and crafts persuasive and original arguments that make a substantive contribution to the field.
4. Communicates complex ideas in a clear and understandable manner that advances and articulates the value of contributions of the field of study to society
5. Demonstrates knowledge and practice of pedagogy consistent with discipline and with field of study
6. Fosters ethical and professional conduct.

PEOPLE

Faculty: Professors Castronovo (chair), Auerbach, Barry, Begam, Bernard-Donals, Bow, Britland, Dharwadker, Foys, Friedman, Guyer, Hill, Johnson, Keller, Kelley, Kercheval, Mitchell, Olaniyan, Ortiz-Robles, Purnell, Raimy, Sherrard-Johnson, Steele, Wanner, M. Young, R. Young, Zimmerman; Associate Professors Allewaert, Bearden, Cooper, Olson, Trotter, Samuels, Valenza, Vieira, Yu, Zweck; Assistant Professors Calhoun, Cho, Fawaz, Vareschi

INTERDISCIPLINARY THEATRE STUDIES, DOCTORAL MINOR

The Doctoral Minor in Interdisciplinary Theatre Studies offers doctoral students in other UW departments and programs the opportunity to gain advanced knowledge of theatre and performance history, theory and criticism as a complement to their core field of study. It will be of particular interest to students studying dramatic literature in English or foreign language departments; fine arts and communication arts students engaged in performance research, history, pedagogy or practice; and students in folklore, gender and women's studies or other programs engaged in research about performativity, ritual or the performance of everyday life.

ADMISSIONS

Ph.D. students in other departments or programs may choose to complete a Minor in Interdisciplinary Theatre Studies (ITS). Students

interested in this minor need to meet with the ITS Program Director, who will advise them of and approve courses appropriate to their specific interests.

REQUIREMENTS

Students must complete 12 credits (4 courses) in the program at the 300 level or higher. At least three of the courses must be at the 500 level or higher. A maximum of 3 credits (1 course) of independent study are allowed. In courses with different assignments for graduate students than undergraduate students, applicants for the Minor must complete the graduate student assignments in the course. Students must earn a grade point average of at least 3.0 in all Minor courses. Under unusual circumstances it may be possible for theatre or performance studies courses completed at another institution within the prior five years to count toward the minor in ITS. Such transfer credits must be approved by the ITS Program Director based on the syllabus, transcript, and final paper from the course.

Code	Title	Credits
Students choose from the following courses: ¹		
ENGL 850	Proseminar in Theatre Research	3
ENGL 859	Seminar-Interdisciplinary Theatre Studies	3
ENGL/THEATRE 731	Advanced Theatre History 500 BC to 1700	3
ENGL/THEATRE 732	Advanced Theatre History 1700 to Present	3
ENGL/THEATRE 578	Modern American Drama and Theatre	3
ENGL/THEATRE 577	Postcolonial Theatre: Drama, Theory and Performance in the Global South	3
ENGL/THEATRE 576	Survey: Theories of Drama	3
ENGL/THEATRE 575	British Drama, 1914 to Present	3
THEATRE 522	Experimental Drama: The Theatre of Europe 1850-the Present	3
THEATRE 619	Special Topics in Theatre and Drama	3
THEATRE/ CURRIC 525	Theatre in Education	3
THEATRE/ CURRIC 562	Drama in Education: Advanced Studies	3
THEATRE/ GEN&WS 415	Introduction to Contemporary Feminist Theatre and Criticism	3

¹ Interdisciplinary Theatre Studies is made up of a transdisciplinary faculty with tenure homes across the university. When a faculty member in ITS teaches a course relevant to the program, the Director (under advisement of the ITS steering committee) will designate said course as eligible for inclusion in a student's doctoral minor, and advertise the fact to all students in the minor.

PEOPLE

Faculty: Professors Dharwadker, Vanden Heuvel, van de Water; Associate Professors Hernández, Peterson, Trotter. The program also works closely with affiliate faculty from programs across the university.

INTERDISCIPLINARY THEATRE STUDIES, M.A.

The Interdisciplinary Theatre Studies program prepares M.A. students to pursue innovative, interdisciplinary research in theatre studies, and to conduct inquiry through scholarly research, practice as research and meaningful teaching experiences. The M.A. can serve as a preparatory degree for the Ph.D., or as a terminal degree for students seeking greater exposure to theatre, drama and performance studies beyond the undergraduate degree. Students with a background in theatre by, with, and for children and youth may apply to specialize in theatre for youth.

The program's core and affiliate faculty are leaders in theatre and performance studies, whose scholarship, practice and leadership in the profession are recognized nationally and abroad. The core faculty's strengths include global dramatic literatures, theatre history and historiography, theatre and cultural theory, the theory and practice of theatre for youth, and relational performance. Our affiliate faculty expand the coursework and advising available to students, incorporating related fields of visual cultures, anthropology, art and art history, literary and theatre studies across English and non-English-speaking traditions, music, new media and digital design, gender and women's studies, and other disciplines.

The program attracts students from across the United States as well as internationally. It creates opportunities for students to engage in teaching and practice as part of their research. It also encourages students to participate in national and international professional meetings, working groups and colloquia; and to share their art and research through practice and publication in their field.

ADMISSIONS

Applicants to the M.A. degree program in Interdisciplinary Theatre Studies need to include in their application a thoughtful statement about their interests in theatre research and the areas in which they might like to study, as well as a sample of their writing in the form of an advanced research paper. Applications are judged on the basis of the prospective student's previous academic record, Graduate Record Exam (GRE) scores, references, personal statement, and writing sample.

Fall semester admission: Applications must be received by **January 5** to guarantee consideration for financial aid.

Spring semester admission: The program does not accept applications for study beginning in spring semester.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have

researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Financial support available to students in the program includes fellowships, teaching assistantships and project assistantships. Please contact the program director or graduate coordinator for more information about financial support.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum 30 credits

Credit Requirement

Minimum 16 credits

Residence Credit Requirement

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall 3.00 GPA required.

Graduate GPA Requirement

Other Grade Requirements Candidates may not file more than one grade of Incomplete per semester.

Assessments and Examinations A thesis is required; this thesis should be the product of the candidate's independent research.

A one-hour examination on the thesis presentation is required.

Language Requirements No language requirements.

REQUIRED COURSES

Students choose courses in consultation with their advisor. There is one required 3-credit course, ENGL 850 Proseminar in Theatre Research, taken in the fall semester of the first year. 21 of the 30 credits must be in ITS courses.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://dept.english.wisc.edu/intertheatrestudies/wp-content/uploads/2017/11/ITS-Handbook-2017-2018.pdf>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students may count no more than 18 credits of graduate coursework from other institutions.

UW-Madison Undergraduate

With program approval, students may count up to 7 credits numbered 300 or above.

UW–Madison University Special

With program approval, students may count up to 15 credits numbered 700 or above if difference in tuition is paid.

PROBATION

Students are reviewed annually by the research faculty and may be placed on probation if they are not making satisfactory progress on program requirements.

ADVISOR / COMMITTEE

The thesis must be prepared under the supervision of their program advisor.

The thesis committee consists of three faculty members—their advisor, at least one additional faculty member from Interdisciplinary Theatre Studies, and one other member.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

The M.A. program is designed to be completed in three to four semesters of full-time study. Students may request a variance in this time frame by approval of the program steering committee.

OTHER

Most ITS students are funded through teaching assistantships in the following courses: Introduction to Theatre and Dramatic Literature and Theatre in Education. Both courses provide opportunities for students to develop their own teaching styles and skills. Students also receive funding through fellowships and project assistantships.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Articulates, critiques, or elaborates the theories, research methods, and approaches to inquiry or schools of practice in theatre, drama and performance.
2. Identifies sources and assembles evidence pertaining to questions or challenges in the study of theatre, drama and performance.
3. Demonstrates understanding of theatre, drama and performance in historical, social, and global contexts.
4. Selects and/or utilizes the most appropriate methodologies and practices. Evaluates or synthesizes information pertaining to questions or challenges in the fields of drama, theatre and performance.
5. Communicates clearly in projects that include collaborative theatre practice, writing seminar-level research papers, and a master's thesis.
6. Recognizes and applies principles of ethical and professional conduct.

PEOPLE

Faculty: Professors Dharwadker, Vanden Heuvel, van de Water; Associate Professors Hernández, Peterson, Trotter. The program also works closely with affiliate faculty from programs across the university.

ACCREDITATION

Accreditation

National Association of Schools of Theatre (<https://nast.arts-accredit.org>)

Accreditation status: Accredited. Next accreditation review: 2019-2020.

INTERDISCIPLINARY THEATRE STUDIES, PH.D.

The Interdisciplinary Theatre Studies Program prepares Ph.D. students to pursue innovative, interdisciplinary research in theatre studies, and to conduct inquiry through scholarly research, practice as research and meaningful teaching experiences. Through rigorous coursework enhanced by the study of, and participation in, various forms of theatre and performance practice, the Ph.D. program prepares graduates for positions as college and university researchers and instructors, as well as public intellectuals and scholar/practitioners. Students with a background in theatre by, with, and for children and youth may apply to specialize in theatre for youth.

The program's core and affiliate faculty are leaders in theatre and performance studies, whose scholarship, practice and leadership in the profession are recognized nationally and abroad. The core faculty's strengths include global dramatic literatures, theatre history and historiography, theatre and cultural theory, the theory and practice of theatre for youth, and relational performance. Our affiliate faculty expand the coursework and advising available to students, incorporating related fields of visual cultures, anthropology, art and art history, literary and theatre studies across English and non-English-speaking traditions, music, new media and digital design, gender and women's studies, and other disciplines.

The program attracts students from across the United States as well as internationally. It creates opportunities for students to engage in teaching and practice as part of their research. It also encourages students to participate in national and international professional meetings, working groups and colloquia; and to share their art and research through practice and publication in their field.

ADMISSIONS

Applicants to the Ph.D. degree programs in Interdisciplinary Theatre Studies need to include in their application a thoughtful statement about their interests in theatre research and the areas in which they might like to study, as well as a sample of their writing in the form of an advanced research paper. Applications are judged on the basis of the prospective student's previous academic record, Graduate Record Exam (GRE) scores, references, personal statement, and writing sample.

Fall semester admission: Applications must be received by **January 5** to guarantee consideration for financial aid.

Spring semester admission: The program does not accept applications for study beginning in spring semester.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Financial support available to students in the program includes fellowships, teaching assistantships and project assistantships. Please contact the program director or graduate coordinator for more information about financial support.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely

online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement	69 credits
Minimum Residence Credit Requirement	32 credits
Minimum Graduate Coursework Requirement	At least 50% of credits must be completed in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.
Overall Graduate GPA Requirement	3.25 GPA required.
Other Grade Requirements	No other specific grade requirements.
Assessments and Examinations	A preliminary portfolio examination in the areas of literature, history, and theory is required after course work is completed. This examination must be passed before being admitted into Ph.D. candidacy. A dissertation proposal must be submitted and defended after the completion of the preliminary examination.
Language Requirements	Attain research competency in one language approved by their program advisor.
Doctoral Minor/Breadth Requirements	All doctoral students are required to complete a minor. Four courses in the outside minor are required for ITS doctoral students.

REQUIRED COURSES

Students choose courses in consultation with their advisor; seven courses in theatre/performance history, theory, criticism and literature; three courses in theatre/performance practice; eight courses in an area of specialization; and, among these courses, three seminars.

One course, ENGL 850 Proseminar in Theatre Research, is required in the fall semester of the first year of study.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://dept.english.wisc.edu/intertheatreudies/wp-content/uploads/2017/11/ITS-Handbook-2017-2018.pdf>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students may count no more than 18 credits of graduate coursework from other institutions.

UW–Madison Undergraduate

With program approval, students may count up to 7 credits numbered 300 or above.

UW–Madison University Special

With program approval, students may count up to 15 credits numbered 700 or above if difference in tuition is paid.

PROBATION

Students are reviewed annually by the program faculty and may be placed on probation if they are not making satisfactory progress on program requirements.

ADVISOR / COMMITTEE

The dissertation must be prepared under supervision of their program advisor.

The dissertation committee consists of four faculty members—the student's advisor, at least two additional faculty members from Interdisciplinary Theatre Studies, and at least one member from another department. At least three committee members must serve as readers, responsible for reading the entire dissertation closely.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

The Prelim B exam (proposal defense) must be completed before the end of the second regular semester following the Prelim A exam.

Per Graduate School policy, doctoral students have five years from the date of passing preliminary examination to take the final oral examination and deposit the dissertation. Students may petition for an additional one-year extension.

OTHER

Most ITS students are funded through teaching assistantships in the following courses: Introduction to Theatre and Dramatic Literature and Theatre in Education. Both courses provide opportunities for students to develop their own teaching styles and skills. Students also receive funding through fellowships and project assistantships.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Demonstrate understanding of the theory, history, and practice of drama and theatre as collaborative cultural forms across historical periods.
2. Master the methods and materials of theatre and performance research and writing in order to produce original scholarly projects that range in complexity from term papers to dissertations.
3. Develop methods for theatre and performance practice and theory in order to test the reciprocal relations between research and practice through reflective participation in the production process.
4. Identify and distinguish among the diverse global locations of theatre and the intercultural contact among theatre traditions, especially as these multiply in the modern and contemporary periods.
5. Prepare for future careers combining theatre and performance scholarship, teaching, and/or practice.
6. Demonstrate professionalization in the discipline of theatre through participation in conferences and submission of work to scholarly journals.

PEOPLE

Faculty: Professors Dharwadker, Vanden Heuvel, van de Water; Associate Professors Hernández, Peterson, Trotter. The program also works closely with affiliate faculty from programs across the university.

ACCREDITATION

Accreditation

National Association of Schools of Theatre (<https://nast.arts-accredit.org>)

Accreditation status: Accredited. Next accreditation review: 2019-2020.

TEACHING ENGLISH TO SPEAKERS OF OTHER LANGUAGES, GRADUATE/ PROFESSIONAL CERTIFICATE

English is now the international language of the world, indispensable for those working in business and the professions, science and technology, and virtually all fields of education. The demand for learning English continues to be high in almost every region of the world; in addition, there continues to be a large number of immigrants in the United States who require instruction in English as a second language. The need for

qualified teachers of English to speakers of other languages, both for adults and for school-age children, remains urgent. Since 1968, the Department of English, through its Programs in English Linguistics, has offered a certificate in TESOL designed to provide academic and pedagogical preparation for prospective ESL/EFL teachers.

A Certificate in TESOL (Teaching English to Speakers of Other Languages) is offered as a graduate version and undergraduate version (including Special students who have completed an undergraduate degree) for those who wish to teach English as a foreign or second language, normally in positions abroad.

ADMISSIONS

Admission Requirements

Download the Graduate TESOL application (<https://english.wisc.edu/esl/documents/Graduate.TESOL.Application.Aug.2014.pdf>) (https://esl.wiscweb.wisc.edu/wp-content/uploads/sites/180/2017/05/Graduate.TESOL_Application.Aug_2014.pdf)

- Student Status. Enrollment in any one of the required certificate courses along with enrollment in a graduate degree program at UW–Madison.
- Foreign Language. Satisfactorily complete at least four college-level terms (or the equivalent, such as four years in high school) of a modern foreign language, including its spoken form. For nonnative English speakers, English is considered the foreign language.
- Demonstrate English proficiency of spoken and written English commensurate with the role of language model. Nonnative English speakers must have a score of at least:
 - 50 on the SPEAK test (<https://esl.wisc.edu/ita-training/speak>) or
 - 26 on the iBt speaking section, with an overall score of 100 on the iBt or
 - 600 on the paper version of TOEFL or
 - 7 on IELTS (<https://esl.wisc.edu/ielts-toefl>).

For further information please contact one of following:

Professor Eric Raimy, TESOL Program Advisor, raimy@wisc.edu
 Ms. Sandra Arfa, ESL Program Director, arfa@wisc.edu
 Ms. Janet Niewold, TESOL Program Coordinator, jkniewold@wisc.edu
 (<http://jkniewold@wisc.edu>)

REQUIREMENTS

CERTIFICATE REQUIREMENTS

- 9 credits of required graduate-level courses listed below along with all prerequisites and language requirements.
- A grade point average of 3.0 in all required courses except English 613–618, which are graded as Credit/No Credit.
- Teaching practice. This requirement is normally fulfilled by completion of ENGL 515.
- All requirements for the certificate in TESOL must be satisfied within three successive academic years.
- Nonnative English speakers must take the SPEAK test (<https://esl.wisc.edu/ita-training/speak>) and receive a score of 50 or higher (or take a comparable test as mentioned in "admissions requirements" above).

PREREQUISITE COURSES (CAN BE TAKEN AT ANY TIME)

Code	Title	Credits
<i>Foundational Courses</i>		
ENGL 314	Structure of English	3
ENGL 315	English Phonology	3
ENGL 318	Second Language Acquisition	3
<i>Courses on Social Perspectives on English</i>		
Select one of the following:		3
ENGL 316	English Language Variation in the U.S.	
ENGL 414	Global Spread of English (not currently offered)	
ENGL 416	English in Society	
ENGL/ GEN&WS 419	Gender and Language (not currently offered)	
Total Credits		12

REQUIRED TESOL GRADUATE CERTIFICATE COURSES

Code	Title	Credits
Must be taken for graduate credit		
<i>TESOL Foundation Course</i>		
ENGL 415	Introduction to TESOL Methods	3
<i>Courses on Second Language Teaching</i>		
ENGL 515	Techniques and Materials for TESOL	3
Select three of the following:		3
ENGL 613	TESOL: Pedagogical Grammar I	
ENGL 614	TESOL: Pedagogical Grammar II	
ENGL 615	TESOL: Teaching Listening and Speaking	
ENGL 616	TESOL: Teaching of Reading	
ENGL 617	TESOL: Teaching of Writing	
ENGL 618	TESOL: Teaching Pronunciation	
Total Credits		9

ENTOMOLOGY

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Entomology, Doctoral Minor (p. 555)
- Entomology, M.S. (p. 555)
- Entomology, Ph.D. (p. 558)

PEOPLE

PROFESSORS

Brunet, Johanne
 Goodman, Walter
 Gratton, Claudio
 Groves, Russell
 Lindroth, Richard

Paskewitz, Susan (chair)
 Raffa, Kenneth
 Williamson, R. Chris
 Young, Daniel
 Zhu, Jun

ASSISTANT PROFESSORS

Guedot, Christelle
 Schoville, Sean
 Steffan, Shawn

ADJUNCT & AFFILIATED FACULTY

Bartholomay, Lyric (Pathobiological Sciences)
 Currie, Cameron (Bacteriology)
 Ives, Anthony (Integrated Biology)
 Mattson, William (adjunct)
 Peckarsky, Bobbi (adjunct)

INSTRUCTIONAL STAFF

Brabant, Craig, Curator Wisconsin Insect Research Collection
 Liesch, Patrick (PJ), Assistant Faculty Associate Insect Diagnostic Lab

Raffa, Kenneth
 Williamson, R. Chris
 Young, Daniel
 Zhu, Jun

ASSISTANT PROFESSORS

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INSTRUCTIONAL STAFF

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 Liesch, Patrick (PJ), Assistant Faculty Associate Insect Diagnostic Lab

ENTOMOLOGY, DOCTORAL MINOR

The Doctoral Minor in Entomology is designed for students who wish to receive an Option A External Minor in Entomology to augment their doctoral curriculum. This minor option is not available to students pursuing a Ph.D. in Entomology.

ADMISSIONS

Please see the Department of Entomology's Handbook and Forms page (<http://labs.russell.wisc.edu/ento/graduate-study/handbooks-and-forms>) for additional information including a form to fill out for the Entomology minor.

REQUIREMENTS

Students who elect Entomology as a minor in their training for the doctorate will take at least 9 credits of Entomology courses, including one semester of graduate seminar (ENTOM 901 Seminar in Organismal Entomology or ENTOM 875 Special Topics). The courses will be determined by the student's interest after consultation with the minor professor and the Entomology Academic Affairs Committee.

Please see the Department of Entomology's Handbook and Forms page (<http://labs.russell.wisc.edu/ento/graduate-study/handbooks-and-forms>) for additional information.

PEOPLE

PROFESSORS

Brunet, Johanne
 Goodman, Walter
 Gratton, Claudio
 Groves, Russell
 Lindroth, Richard
 Paskewitz, Susan (chair)

ENTOMOLOGY, M.S.

The department is a diverse unit of researchers whose work spans the areas of suborganismal, organismal, and applied entomology. Research programs of the faculty are broadly interdisciplinary employing cutting edge technology in all areas. Individual faculty web pages provide in-depth descriptions of the diversity of research in entomology.

Suborganismal research in the department focuses on insect physiology and population genetics. Areas of specialization include the molecular action of insect hormones and the insect/microbiome interface. Studies of gene flow utilize various molecular methods. Genomic data are used to understand adaptation, gene flow on landscapes, the genetic basis of phenotypes, and the phylogenetic relationships of insect species.

Organismal: Entomology faculty members are leaders in the areas of basic ecology of insects in a variety of natural and managed systems, such as forests, lakes and agroecosystems. Studies in taxonomy, chemical ecology, spatial analysis, vector biology, behavioral ecology, and landscape ecology have strong representation in the department. Research examines how they affect crops and forests, influence ecosystem processes such as nutrient and carbon cycling and the "services" they provide in natural and managed ecosystems such as pollination and pest suppression.

Applied/Extension: Faculty in the department extend a long tradition of research on insects as they impact humans. Excellence in agricultural research continues in vegetable crops, field and forage crops and the turf and ornamental "green industry" where work has continued to advance the application of integrated pest management in agricultural systems. Basic research conducted by faculty in cropping systems also has implications for pest management, conservation, bioenergy, resource management. This research extends to global health issues focusing on arthropod borne diseases and insects as a novel food source.

Research in the department explores the interconnections across scales of biological organization, from molecular and cellular interactions to ecosystem-level studies, in both managed and natural systems, and from basic to applied research. Faculty members collaborate with colleagues

in other departments in the College of Agricultural and Life Sciences, and beyond the college and university.

Graduate education in the Department of Entomology provides many opportunities for collaborative research. Faculty members participate in joint instructional programs with other departments on campus and with scientists at other universities, in federal and state agencies, and in industry. Because several entomology faculty members are also adjunct professors in zoology, forest and wildlife ecology, molecular and environmental toxicology, and other departments, they may serve as primary advisers to graduate students majoring in those fields. Opportunities exist to conduct research in a variety of distant tropical and temperate regions, to gain experience in classroom instruction and individual mentoring, and to participate in outreach activities such as addressing K–12 classes, naturalist groups, and commodity producers.

ADMISSIONS

The Graduate School sets minimum requirements for admissions (<https://grad.wisc.edu/admissions/requirements>). Academic program admission requirements are often more rigorous than those set by the Graduate School. Please check the program's website (<http://labs.russell.wisc.edu/ento/graduate-study/application-process>) for details.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Additional information regarding funding for Entomology graduate students is available on the departmental website (<http://labs.russell.wisc.edu/ento/graduate-study/funding-information>).

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all course work (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Students are required to hold a coursework certification meeting, submit certification paperwork, and hold a final defense exam. Additional information regarding required assessments and examinations is listed in the program handbook (<http://labs.russell.wisc.edu/ento/graduate-study/handbooks-and-forms/>).

Language Requirements Contact the program for information on any language requirements.

REQUIRED COURSES

Additional information and forms related to program-specific courses is available in the program handbook (<http://labs.russell.wisc.edu/ento/graduate-study/handbooks-and-forms>).

Code	Title	Credits
Core Courses		
ENTOM/ ZOOLOGY 302	Introduction to Entomology	4
<i>Must take at least 3 credits from 2 of the categories below.</i>		
Organismal		
ENTOM 331	Taxonomy of Mature Insects	
ENTOM 432	Taxonomy and Bionomics of Immature Insects	
ENTOM 450	Basic and Applied Insect Ecology ¹	
ENTOM 451	Basic and Applied Insect Ecology Laboratory	
ENTOM/BOTANY/ ZOOLOGY 473	Plant-Insect Interactions	
ENTOM/ AGRONOMY/ F&W ECOL/ M&ENVTOX 632	Ecotoxicology: The Chemical Players	
ENTOM/ AGRONOMY/ F&W ECOL/ M&ENVTOX 633	Ecotoxicology: Impacts on Individuals	
ENTOM/ AGRONOMY/ F&W ECOL/ M&ENVTOX 634	Ecotoxicology: Impacts on Populations, Communities and Ecosystems	
ENTOM 701	Advanced Taxonomy	
Sub-organismal		
ENTOM 321	Physiology of Insects	
ENTOM/BOTANY/ PL PATH 505	Plant-Microbe Interactions: Molecular and Ecological Aspects	
ENTOM/ GENETICS/ ZOOLOGY 624	Molecular Ecology	
Applied		
ENTOM/M M & I/ PATH-BIO/ ZOOLOGY 350	Parasitology	
ENTOM 351	Principles of Economic Entomology	
ENTOM/ ZOOLOGY 371	Medical Entomology	
ENTOM 450	Basic and Applied Insect Ecology	
ENTOM 451	Basic and Applied Insect Ecology Laboratory	
ENTOM/ F&W ECOL 500	Insects in Forest Ecosystem Function and Management	
Seminars		
ENTOM 601	Seminar in Methods of Scientific Oral Presentations	3
ENTOM 801	Colloquium	1
ENTOM 901	Seminar in Organismal Entomology	1

or ENTOM 875 Special Topics

Additional Credits

Students must take additional credits, in consultation with their advisor, to reach a total of 30 credits. This may include ENTOM 990.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<http://labs.russell.wisc.edu/ento/graduate-study/handbooks-and-forms>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With Advisory Committee and Academic Affairs Committee approval, students are allowed to count no more than 14 credits of graduate course work from other institutions. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

With Advisory Committee and Academic Affairs Committee approval, the student may apply up to 7 credits numbered 300 or above completed at UW–Madison toward fulfillment of minimum degree requirements. This work would not be allowed to count toward the Minimum Graduate Coursework (50%) Requirement unless taken at the 700 level or above. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison University Special

With Advisory Committee and Academic Affairs Committee approval, the student may apply up to 15 University Special student credits as fulfillment of the minimum graduate residence or graduate degree credit requirements on occasion as an exception (on a case-by-case basis). UW–Madison coursework taken as a University Special student would not be allowed to count toward the Minimum Graduate Coursework (50%) Requirement unless taken at the 700 level or above. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure they are making satisfactory progress toward a degree, the Graduate School expects that students meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor.

An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

All Entomology applicants (M.S. and Ph.D.) must contact faculty members in the department before and during the admissions process. All students are admitted directly into a faculty member's lab. Additionally, we do not accept new graduate students into the program unless financial support for the student is currently in the hands of a faculty member, or is assured by the time a student begins, or a student brings independent funding and has contacted a faculty member who agrees to advise.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PROGRAM RESOURCES

Students in the Department of Entomology are strongly encouraged to participate in student organization activities (<http://labs.russell.wisc.edu/ento/graduate-study/student-organizations>).

LEARNING OUTCOMES

1. Develop a broad knowledge base of entomology, inclusive of suborganismal, organismal, and applied entomology.
2. Knowledge of laboratory and/or field methodology.
3. Recognize relationships between structure and function at appropriate levels- molecular, cellular, organismal or ecological.

4. Explain and apply scientific methods including designing and conducting experiments and testing hypotheses.

PEOPLE

PROFESSORS

Brunet, Johanne
 Goodman, Walter
 Gratton, Claudio
 Groves, Russell
 Lindroth, Richard
 Paskewitz, Susan (chair)
 Raffa, Kenneth
 Williamson, R. Chris
 Young, Daniel
 Zhu, Jun

ASSISTANT PROFESSORS

Guedot, Christelle
 Schoville, Sean
 Steffan, Shawn

ADJUNCT & AFFILIATED FACULTY

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 Currie, Cameron (Bacteriology)
 Ives, Anthony (Integrated Biology)
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 Peckarsky, Bobbi (adjunct)

INSTRUCTIONAL STAFF

Brabant, Craig, Curator Wisconsin Insect Research Collection
 Liesch, Patrick (PJ), Assistant Faculty Associate Insect Diagnostic Lab

ENTOMOLOGY, PH.D.

The department is a diverse unit of researchers whose work spans the areas of suborganismal, organismal, and applied entomology. Research programs of the faculty are broadly interdisciplinary employing cutting edge technology in all areas. Individual faculty web pages provide in-depth descriptions of the diversity of research in entomology.

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research continues in vegetable crops, field and forage crops and the turf and ornamental "green industry" where work has continued to advance the application of integrated pest management in agricultural systems. Basic research conducted by faculty in cropping systems also has implications for pest management, conservation, bioenergy, resource management. This research extends to global health issues focusing on arthropod borne diseases and insects as a novel food source.

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ADMISSIONS

The Graduate School sets minimum requirements for admissions (<https://grad.wisc.edu/admissions/requirements>). Academic program admission requirements are often more rigorous than those set by the Graduate School. Please check the program's website (<http://labs.russell.wisc.edu/ento/graduate-study/application-process>) for details.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Additional information regarding funding for Entomology graduate students is available on the departmental website (<http://labs.russell.wisc.edu/ento/graduate-study/funding-information>).

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

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MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

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Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 51 credits

Minimum Residence Credit Requirement 32 credits

Minimum Graduate Coursework Requirement Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all course work (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Doctoral students are required to take a comprehensive preliminary/oral examination after they have cleared their record of all Incomplete and Progress grades (other than research and thesis). Deposit of the doctoral dissertation in the Graduate School is required. Additional information regarding assessment and examinations is available on the departmental website (<http://labs.russell.wisc.edu/ento/graduate-study/handbooks-and-forms/>).

Language Requirements Contact the program for information on any language requirements.

Doctoral Minor/Breadth Requirements All doctoral students are required to complete a minor.

REQUIRED COURSES

Additional information and forms related to program-specific courses is available in the program handbook (<http://labs.russell.wisc.edu/ento/graduate-study/handbooks-and-forms/>) including foundation courses.

Code	Title	Credits
Core Courses		
ENTOM/ ZOOLOGY 302	Introduction to Entomology	4
<i>Must take at least 3 credits from each of the 3 categories below, plus one additional course for a total of 4 courses.</i>		
Organismal		
ENTOM 331	Taxonomy of Mature Insects	
ENTOM 432	Taxonomy and Bionomics of Immature Insects	
ENTOM 450	Basic and Applied Insect Ecology ¹	
ENTOM 451	Basic and Applied Insect Ecology Laboratory	
ENTOM/BOTANY/ ZOOLOGY 473	Plant-Insect Interactions	
ENTOM/ AGRONOMY/ F&W ECOL/ M&ENVTOX 632	Ecotoxicology: The Chemical Players	
ENTOM/ AGRONOMY/ F&W ECOL/ M&ENVTOX 633	Ecotoxicology: Impacts on Individuals	
ENTOM/ AGRONOMY/ F&W ECOL/ M&ENVTOX 634	Ecotoxicology: Impacts on Populations, Communities and Ecosystems	
ENTOM 701	Advanced Taxonomy	
Sub-organismal		
ENTOM 321	Physiology of Insects	
ENTOM/BOTANY/ PL PATH 505	Plant-Microbe Interactions: Molecular and Ecological Aspects	
ENTOM/ GENETICS/ ZOOLOGY 624	Molecular Ecology	
Applied		

ENTOM/M M & I/
PATH-BIO/
ZOOLOGY 350

ENTOM 351 Principles of Economic Entomology

ENTOM/
ZOOLOGY 371

ENTOM 450 Basic and Applied Insect Ecology

ENTOM 451 Basic and Applied Insect Ecology Laboratory

ENTOM/
F&W ECOL 500

Insects in Forest Ecosystem Function and Management

Seminars 4

ENTOM 601 Seminar in Methods of Scientific Oral Presentations 1

ENTOM 875 Special Topics 1

ENTOM 901 Seminar in Organismal Entomology 2

Students must take 2 instances of ENTOM 901

Additional Credits

Students must take additional credits, in consultation with their advisor, to reach a total of 51 credits. This may include ENTOM 990.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<http://labs.russell.wisc.edu/ento/graduate-study/handbooks-and-forms/>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With Advisory Committee and Academic Affairs Committee approval, students may count credits of coursework from other institutions. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

With Advisory Committee and Academic Affairs Committee approval, the student may apply up to 7 credits numbered 300 or above completed at UW–Madison toward fulfillment of minimum degree and minor credit requirements. This work would not be allowed to count toward the Minimum Graduate Coursework (50%) Requirement unless taken at the 700 level or above. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison University Special

With payment of the difference in tuition (between University Special and graduate tuition) and with Advisory Committee and Academic Affairs Committee approval, the student may apply up to 15 University Special student credits as fulfillment of the minimum graduate residence, graduate degree, or minor credit requirements on occasion as an exception (on a case-by-case basis). UW–Madison coursework taken as a University Special student would not be allowed to count toward the Minimum Graduate Coursework (50%) Requirement unless taken at the 700 level or above. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies. An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor.

To ensure they are making satisfactory progress toward a degree, the Graduate School expects that students meet with their advisor on a regular basis.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

OTHER

All Entomology applicants (M.S. and Ph.D.) must contact faculty members in the department before and during the admissions process. All students are admitted directly into a faculty member's lab. Additionally, we do not accept new graduate students into the program unless financial support for the student is currently in the hands of a faculty member, or is assured by the time a student

begins, or a student brings independent funding and has contacted a faculty member who agrees to advise.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PROGRAM RESOURCES

Students in the Department of Entomology are strongly encouraged to participate in student organization activities (<http://labs.russell.wisc.edu/ento/graduate-study/student-organizations>).

LEARNING OUTCOMES

1. Develop a broad knowledge base of entomology, inclusive of suborganismal, organismal, and applied entomology.
2. Develop state-of-the-art research skills and command of the scientific literature.
3. Integrate research discoveries with prior knowledge to demonstrate expertise in entomological science.
4. Advance our current knowledge of entomology and related fields.
5. Demonstrate critical thinking skills in defining problems, assembling facts, and applying logic to scientific arguments.
6. Demonstrate excellent written and oral communication skills.

PEOPLE

PROFESSORS

Brunet, Johanne
 Goodman, Walter
 Gratton, Claudio
 Groves, Russell
 Lindroth, Richard
 Paskewitz, Susan (chair)
 Raffa, Kenneth
 Williamson, R. Chris
 Young, Daniel
 Zhu, Jun

ASSISTANT PROFESSORS

Guedot, Christelle
 Schoville, Sean
 Steffan, Shawn

ADJUNCT & AFFILIATED FACULTY

Bartholomay, Lyric (Pathobiological Sciences)
 Currie, Cameron (Bacteriology)
 Ives, Anthony (Integrated Biology)
 Mattson, William (adjunct)
 Peckarsky, Bobbi (adjunct)

INSTRUCTIONAL STAFF

Brabant, Craig, Curator Wisconsin Insect Research Collection
Liesch, Patrick (PJ), Assistant Faculty Associate Insect Diagnostic Lab

FINANCE

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Business: Finance, Investment, and Banking, M.S. (p. 562)
- Business: Finance, Investment, and Banking, MBA (p. 564)

PEOPLE

Faculty: Professors Ready (chair), Brown, Corbae, Johannes, Krainer, Mello, Ready, Wright; Associate Professors Eraker, Fedenia, Odders-White, Seward; Assistant Professors Chang, Gofman, Levine, Robotto, Wu

BUSINESS: FINANCE, INVESTMENT, AND BANKING, M.S.

Founded in 1900, the School of Business established one of the first five business programs in the nation. That entrepreneurial spirit remains strong.

As a student in the School of Business, you will find yourself inspired by peers, staff, alumni, business leaders, and world-renowned faculty who are focused, collaborative, and engaged in every aspect of the student experience. You will join a highly ranked program that equips you to meet both academic and career challenges. Employers value School of Business graduates because of the comprehensive preparation this learning environment provides. Graduates possess highly sought-after general management and specialized expertise in business.

Joining collaborative, inspiring, trustworthy, and progressive WSB alumni, Business Badgers graduate prepared to lead their organizations to success and transform the world of business. Together Forward!

ADMISSIONS

This master's program is offered for work leading to the Ph.D. Students may not apply directly for the master's, and should instead see the admissions information for the Ph.D. (p. 212)

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Contact the program for information on required assessments and examinations.

Language Requirements Contact the program for information on any language requirements.

REQUIRED COURSES

This master's degree is earned by students on the way to earning the Ph.D. in Business. Refer to the curricular requirements for specific tracks within the Business Ph.D. (p. 213) for required courses.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

No credits of graduate coursework from other institutions is allowed to satisfy requirements.

UW-Madison Undergraduate

Up to 6 credits from courses numbered 300 or above will be allowed to apply toward the minimum graduate degree credit requirement. Courses numbered 700 or above will be allowed to apply toward the minimum graduate coursework requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW-Madison University Special

No credits from the UW-Madison University Special student career are allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Students must be enrolled full-time.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Develop the ability to assess the value of publicly traded equity and fixed income securities. (Applied Securities Analysis Program)
2. Articulate the common causes of mispriced securities, develop techniques to find these securities, and acquire insight as to how to evaluate the success of their process and decisions. (Applied Securities Analysis Program)
3. Develop the ability to build portfolios that are designed to produce consistent positive returns and/or outperform benchmarks without taking on significant absolute or incremental risk. (Applied Securities Analysis Program)
4. Design financial strategies for non-financial firms, including raising capital, the choice and mix of securities, refinancing, as well as various forms of returning capital to different investors. (Corporate Finance and Investment Banking)
5. Assess the value of publicly traded and privately held equity and fixed income securities. (Corporate Finance and Investment Banking)

6. Analyze business decisions utilizing multinational finance techniques. (Corporate Finance and Investment Banking)

7. Develop the ability to communicate and collaborate effectively within an organization. (Applied Securities Analysis Program)

8. Understand the importance of ethical behavior within the investment industry and have an understanding of how to work through ethical dilemmas as they arise. (Applied Securities Analysis Program)

9. Able to perform the role and functions of investment bankers, such as underwriting of securities, advising on mergers and acquisitions, divestitures, corporate restructuring. (Corporate Finance and Investment Banking)

10. Able to execute private equity and venture financing of high potential companies. (Corporate Finance and Investment Banking)

11. Apply their knowledge and skills by providing financial consulting services to national companies. (Corporate Finance and Investment Banking)

PEOPLE

Faculty: Professors Ready (chair), Brown, Corbae, Eraker, Johannes, Krainer, Mello, Wright; Associate Professors Fedenia, Levine, Odders-White, Quintin, Shaliastovich; Assistant Professors Chang, Gofman, Robotto

ACCREDITATION

ACCREDITATION

AACSB International—The Association to Advance Collegiate Schools of Business (<http://www.aacsb.edu>)

Accreditation status: Accredited. Next accreditation review: 2021–2022.

BUSINESS: FINANCE, INVESTMENT, AND BANKING, MBA

Founded in 1900, the School of Business established one of the first five business programs in the nation. That entrepreneurial spirit remains strong.

As a student in the School of Business, you will find yourself inspired by peers, staff, alumni, business leaders, and world-renowned faculty who are focused, collaborative, and engaged in every aspect of the student experience. You will join a highly ranked program that equips you to meet both academic and career challenges. Employers value School of Business graduates because of the comprehensive preparation this learning environment provides. Graduates possess highly sought-after general management and specialized expertise in business.

Joining collaborative, inspiring, trustworthy, and progressive WSB alumni, Business Badgers graduate prepared to lead their organizations to success and transform the world of business. Together Forward!

NAMED OPTION IN APPLIED SECURITY ANALYSIS

The applied security analysis program (ASAP) at the School of Business was founded in 1970 by Professor Stephen L. Hawk. Approximately 500 students have graduated from the program. Each graduate enters the investment community with the unique educational experience of learning the investment business through hands-on management of real portfolios. Beginning with \$100,000 in 1970, students now manage over \$50 million in equities and fixed-income assets. The program is proud to be a pioneer among student-managed investment programs and a CFA® Program Partner. See the program website (<https://wsb.wisc.edu/programs-degrees/mba/full-time/career-specializations/applied-security-analysis>) for more information.

NAMED OPTION IN CORPORATE FINANCE AND INVESTMENT BANKING

The Nicholas MBA program offers students a unique opportunity to gain practical experience working on meaningful corporate finance consulting engagements. Students work in teams on assigned finance projects for consulting firms, investment banks, public corporations, and private companies. The financial consulting engagements typically involve an analysis of problem for the engagement sponsors in areas such as working capital management, evaluation of funding sources, valuation, cost of capital, capital expenditure decisions, acquisition analysis, and joint venture and strategic alliances. Throughout the academic year, students work on approximately four to six diverse financial consulting engagements. Overall, each class works with 16–18 different corporations, firms, and banks. See the program website (<https://wsb.wisc.edu/programs-degrees/mba/full-time/career-specializations/corporate-finance-investment-banking>) for more information.

ADMISSIONS

Admission consideration for the MBA program requires a four-year undergraduate degree or the equivalent, in any discipline, from an accredited institution. The School of Business seeks a minimum of two years of full-time work experience along with a strong undergraduate performance. In addition to academic credentials, GMAT scores and work experience, personal achievements, motivation, communication skills (written and oral), international exposure and recommendation letters are considered in the admission process at both the master's and doctoral levels.

Note: The Graduate Management Admission Test (GMAT), taken within five years of the starting term, is required of all applicants to the School of Business; the Graduate Record Exam (GRE) may be an acceptable alternative on a case by case basis. All applicants whose native language is not English must submit scores from the Test of English as a Foreign Language (TOEFL), the Pearson Test of English (PTE), Intensive English as a Second Language (IELTS), or show completion of an Interlink program. A minimum iBT TOEFL score of 100 or equivalent, obtained within two years of the intended start term, is required. International applicants who have completed a degree at an institution whose primary language of instruction was English may request a waiver of this requirement on the application.

HOW TO APPLY

Students interested in business degrees do not apply through the Graduate School application system and should instead refer to the School of Business Admissions page. (<https://wsb.wisc.edu/programs-degrees/mba/full-time/admissions>)

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Learn about costs and financial assistance on the program website (<https://wsb.wisc.edu/programs-degrees/mba/full-time/admissions/tuition-costs-financial-aid-scholarships>).

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

Note: The major is currently non-admitting. Students are admitted through one of the named options (sub-majors) below (p. 565).

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the

advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement	30 credits
Minimum Residence Credit Requirement	16 credits
Minimum Graduate Coursework Requirement	Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (https://registrar.wisc.edu/course-guide/).
Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.
Assessments and Examinations	Contact the program for information on required assessments and examinations.
Language Requirements	Contact the program for information on any language requirements.

REQUIRED COURSES

Select a Named Option (p. 565) for courses required.

NAMED OPTIONS (SUB-MAJORS)

A named option is a formally documented sub-major within an academic major program. Named options appear on the transcript with degree conferral. Students pursuing the MBA in Business: Finance, Investment, and Banking must select one of the following named options:

- Business: Finance, Investment, and Banking: Applied Security Analysis, MBA (p. 567)
- Business: Finance, Investment, and Banking: Corporate Finance and Investment Banking, MBA (p. 569)

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

No credits of graduate coursework from other institutions is allowed to satisfy requirements.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

No credits from the UW–Madison University Special student career are allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Students must be enrolled full-time.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Develop the ability to assess the value of publicly traded equity and fixed income securities. (Applied Securities Analysis Program)
2. Articulate the common causes of mispriced securities, develop techniques to find these securities, and acquire insight as to how to evaluate the success of their process and decisions. (Applied Securities Analysis Program)
3. Develop the ability to build portfolios that are designed to produce consistent positive returns and/or outperform benchmarks without taking on significant absolute or incremental risk. (Applied Securities Analysis Program)
4. Design financial strategies for non-financial firms, including raising capital, the choice and mix of securities, refinancing, as well as various forms of returning capital to different investors. (Corporate Finance and Investment Banking)
5. Assess the value of publicly traded and privately held equity and fixed income securities. (Corporate Finance and Investment Banking)
6. Analyze business decisions utilizing multinational finance techniques. (Corporate Finance and Investment Banking)
7. Develop the ability to communicate and collaborate effectively within an organization. (Applied Securities Analysis Program)
8. Understand the importance of ethical behavior within the investment industry and have an understanding of how to work through ethical dilemmas as they arise. (Applied Securities Analysis Program)
9. Able to perform the role and functions of investment bankers, such as underwriting of securities, advising on mergers and acquisitions, divestitures, corporate restructuring. (Corporate Finance and Investment Banking)
10. Able to execute private equity and venture financing of high potential companies. (Corporate Finance and Investment Banking)
11. Apply their knowledge and skills by providing financial consulting services to national companies. (Corporate Finance and Investment Banking)

PEOPLE

Faculty: Professors Ready (chair), Brown, Corbae, Eraker, Johannes, Krainer, Mello, Wright; Associate Professors Fedenia, Levine, Odders-White, Quintin, Shaliastovich; Assistant Professors Chang, Gofman, Robotto

ACCREDITATION

Accreditation

AACSB International—The Association to Advance Collegiate Schools of Business (<http://www.aacsb.edu>)

Accreditation status: Accredited. Next accreditation review: 2021-2022.

BUSINESS: FINANCE, INVESTMENT, AND BANKING: APPLIED SECURITY ANALYSIS, MBA

This is a named option in the Business: Finance, Investment, and Banking MBA (p. 564).

ADMISSIONS

Admission consideration for the MBA program requires a four-year undergraduate degree or the equivalent, in any discipline, from an accredited institution. The School of Business seeks a minimum of two years of full-time work experience along with a strong undergraduate performance. In addition to academic credentials, GMAT scores and work experience, personal achievements, motivation, communication skills (written and oral), international exposure and recommendation letters are considered in the admission process at both the master's and doctoral levels.

Note: The Graduate Management Admission Test (GMAT), taken within five years of the starting term, is required of all applicants to the School of Business; the Graduate Record Exam (GRE) may be an acceptable alternative on a case by case basis. All applicants whose native language is not English must submit scores from the Test of English as a Foreign Language (TOEFL), the Pearson Test of English (PTE), Intensive English as a Second Language (IELTS), or show completion of an Interlink program. A minimum iBT TOEFL score of 100 or equivalent, obtained within two years of the intended start term, is required. International applicants who have completed a degree at an institution whose primary language of instruction was English may request a waiver of this requirement on the application.

HOW TO APPLY

Students interested in business degrees do not apply through the Graduate School application system and should instead refer to the School of Business Admissions page. (<https://wsb.wisc.edu/programs-degrees/mba/full-time/admissions>)

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Contact the program for information on required assessments and examinations.

Language Requirements Contact the program for information on any language requirements.

REQUIRED COURSES

Code	Title	Credits
Year One		
<i>Fall Semester</i>		
GEN BUS 704	Data to Decisions	3
ACCT I S 700	Financial Accounting	3
FINANCE 700	Introduction to Financial Management	3
M H R 765	Contemporary Topics (Topic: Leading and Working in Teams)	2
MARKETNG 700	Marketing Management	3
FINANCE 735	Introduction to Applied Security Analysis	2
FINANCE 765	Contemporary Topics (Topic: Portfolio Theory and Applications)	2
<i>Spring Semester</i>		
M H R 723	Business Strategy	3
OTM 700	Operations Management	3
OTM 732	Economics for Managers	3
FINANCE 635	Security Analysis	3
FINANCE 736	Introduction to Applied Portfolio Management	2
FINANCE 740	Analysis of Fixed Income Securities	3
Year Two		
<i>Fall Semester</i>		
GEN BUS 710	Ethics, Integrity and Society	1
FINANCE 835	Applied Security Analysis and Investment Management I	5
Electives		6
<i>Spring Semester</i>		
FINANCE 836	Applied Security Analysis and Investment Management II	4
Electives		6
Total Credits		57

Approved Electives

Code	Title	Credits
FINANCE 330	Derivative Securities	3
FINANCE 610	Bank Simulation and Strategy	3
FINANCE 727	Raising Capital & Financing the Firm	3
FINANCE 750	Mergers and Acquisitions	3
FINANCE 757	Entrepreneurial Finance	3

FINANCE 410	Bank Management	3
FINANCE 726	Valuation and Corporate Investment Decisions	3
FINANCE/ INTL BUS 745	Multinational Business Finance	3
FINANCE 755	Corporate Restructuring & Reorganization	3
ACCT I S 603	Financial Statement Analysis	3
Any other ACCT I S course at the 600 level or higher.		
Any other FINANCE course at the 600 level or higher.		

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

NAMED OPTION-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

No credits of graduate coursework from other institutions is allowed to satisfy requirements.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

No credits from the UW–Madison University Special student career are allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Students must be enrolled as full-time students.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

BUSINESS: FINANCE, INVESTMENT, AND BANKING: CORPORATE FINANCE AND INVESTMENT BANKING, MBA

This is a named option in the Business: Finance, Investment, and Banking MBA (p. 564).

ADMISSIONS

Admission consideration for the MBA program requires a four-year undergraduate degree or the equivalent, in any discipline, from an accredited institution. The School of Business seeks a minimum of two years of full-time work experience along with a strong undergraduate performance. In addition to academic credentials, GMAT scores and work experience, personal achievements, motivation, communication skills (written and oral), international exposure and recommendation letters are considered in the admission process at both the master's and doctoral levels.

Note: The Graduate Management Admission Test (GMAT), taken within five years of the starting term, is required of all applicants to the School of Business; the Graduate Record Exam (GRE) may be an acceptable alternative on a case by case basis. All applicants whose native language is not English must submit scores from the Test of English as a Foreign Language (TOEFL), the Pearson Test of English (PTE), Intensive English as a Second Language (IELTS), or show completion of an Interlink program. A minimum iBT TOEFL score of 100 or equivalent, obtained within two years of the intended start term, is required. International applicants who have completed a degree at an institution whose primary language of instruction was English may request a waiver of this requirement on the application.

HOW TO APPLY

Students interested in business degrees do not apply through the Graduate School application system and should instead refer to the School of Business Admissions page. (<https://wsb.wisc.edu/programs-degrees/mba/full-time/admissions>)

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum 30 credits
Credit Requirement

Minimum Residence Credit Requirement	16 credits
Minimum Graduate Coursework Requirement	Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (https://registrar.wisc.edu/course-guide/).
Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.
Assessments and Examinations	Contact the program for information on required assessments and examinations.
Language Requirements	Contact the program for information on any language requirements.

REQUIRED COURSES

Code	Title	Credits
Year One		
<i>Fall Semester</i>		
GEN BUS 704	Data to Decisions	3
ACCT I S 700	Financial Accounting	3
FINANCE 700	Introduction to Financial Management	3
M H R 706	Leading and Working in Teams	1
MARKETNG 700	Marketing Management	3
<i>Spring Semester</i>		
M H R 723	Business Strategy	3
OTM 700	Operations Management	3
OTM 732	Economics for Managers	3
FINANCE 635	Security Analysis	3
FINANCE 725	Corporation Finance Theory and Practice	3
Year Two		
<i>Fall Semester</i>		
GEN BUS 710	Ethics, Integrity and Society	1
FINANCE 750	Mergers and Acquisitions	3
FINANCE 850	Applied Corporate Finance I	4
Elective		3
<i>Spring Semester</i>		
FINANCE 851	Applied Corporate Finance II	5
FINANCE 755	Corporate Restructuring & Reorganization	3
Electives		6
Total Credits		53

Approved Electives

One second-year elective must be a Finance course with a number above 300 (excluding FINANCE 325). The remaining three second-year electives can be a Finance (<http://guide.wisc.edu/courses/finance>) course with a number above 300 (excluding FINANCE 325 and 450) or any 600 Level and above business school classes. Other courses may be used as an elective with the approval of the Nicholas Center Academic Advisor.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

NAMED OPTION-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

No credits of graduate coursework from other institutions is allowed to satisfy requirements.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

No credits from the UW–Madison University Special student career are allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Students must be enrolled as full-time students.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

FOOD SCIENCE

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Food Science, Doctoral Minor (p. 571)
- Food Science, M.S. (p. 571)
- Food Science, Ph.D. (p. 574)

PEOPLE

Faculty: Professors Damodaran, Etzel, Hartel, Ingham, Lucey, Parkin, Rankin (chair), Steele; Assistant Professors Bolling, Huynh, Ikeda, van Pijkeren

FOOD SCIENCE, DOCTORAL MINOR

REQUIREMENTS

To qualify for a doctoral minor in food science, a student must satisfactorily complete in the Department of Food Science: 1 credit of FOOD SCI 900 Seminar Advanced (graded) and 10 additional credits as specified by the minor professor (who must have a tenure home in food science). Of these 10 credits, no more than 4 credits at the 300–499 level are acceptable and the remaining credits must be at the 500 level or above. The specified coursework requirements must be prepared using the Ph.D. Minor Agreement Form. The original signed copy must be transmitted to the Graduate School office at the time the student requests the preliminary exam warrant (see Department of Food Science office staff about four weeks prior to exam date).

PEOPLE

Faculty: Professors Damodaran, Etzel, Hartel, Ingham, Lucey, Parkin, Rankin (chair), Steele; Assistant Professors Bolling, Huynh, Ikeda, van Pijkeren

FOOD SCIENCE, M.S.

The graduate program in the Department of Food Science ranks among the best of its kind in the United States. Strong faculty research groups exist in food chemistry, food engineering, food microbiology, and food safety. The master's track in these areas combine an array of in-depth courses with the use of advanced research methods for studying food properties: chemical, physical, physiological, and bioactive characteristics; material properties; microbial control and safety; sensory quality; procedures for the processing, storage, and preservation of foods.

Research areas in which the department has special expertise include: chemical attributes of proteins, enzymes, lipids, flavors, bioactive components, and pigments; processes for crystallizing, separating, freezing, and drying; food safety (detection, control, and mechanistic action of pathogenic microorganisms, and undesirable chemicals in food); process optimization and validation of critical processing limits. Commodity foci include: dairy products, confectionery products, fruits and vegetables, muscle foods, and fermented products.

The department occupies Babcock Hall, a building with excellent facilities for instruction and research. Availability of appropriate instruments, equipment, and pilot-plant facilities enables research on the above topics to be conducted in a manner that has impact worldwide.

About 40–50 students from many countries are currently pursuing both the M.S. and Ph.D. degrees in the areas mentioned above. This includes some graduate students working in programs associated with the Food Research Institute and closely allied departments.

Individuals obtaining advanced degrees in food science will find employment opportunities in academic instruction and research, government research or regulatory programs, and industrial research, development, or quality assurance. Historically, the department's placement record for graduating students has been very good.

ADMISSIONS

Students who are admitted to the program must meet the Graduate School minimum requirements (<https://grad.wisc.edu/admissions/requirements>), including completion of a bachelor's degree which typically consists of a satisfactory undergraduate education in fields such as food science, dairy science, chemistry, most biological sciences (e.g., biochemistry, microbiology, nutrition), and engineering (especially chemical and agricultural). To enter the program, students must have taken at least one course in biochemistry and one course in organic chemistry.

APPLICATION DEADLINES:

Fall semester—January 15 (prior to the fall semester)

Spring semester—September 1 (prior to the spring semester)

The *minimum* test scores required to be *eligible to be "admissible"* to the Food Science graduate program are the following:

GRE Verbal: 148
Quantitative: 148
Analytical Writing: 3.5

English TOEFL: 92
Proficiency IELTS: 7.0
Test MELAB: 82
(only one English test needs to be taken)

Admissibility does NOT equal admission. Admissibility means applicants have met the minimum requirements to be *eligible* for admission.

Applicants recommended for admission generally have higher test scores that are competitive with the top 50% of GRE scores among individuals intent on pursuing graduate studies in life sciences in the U.S. (median scores of V: 151, Q: 151, AW: 3.5). Recommendation for admission is determined solely by the supervising lab faculty member. Final admission is determined by the Graduate School.

Recommendation for admission is made by an individual food science or affiliated faculty member (<https://foodsci.wisc.edu/faculty.php>) usually based on the review of the following:

- applicant's online application (<https://grad.wisc.edu/admissions/process>)
- academic record (scanned PDF academic transcripts)
- official test scores (sent directly from the testing agency (code: 1846) of Graduate Record Exams (GRE) (<https://www.ets.org>) and English proficiency test (non-native English speaking applicants (<https://grad.wisc.edu/admissions/requirements>) only)
- recommendation letters (three)
- personal statement (reasons for graduate study) up to two pages double-spaced
- CV or resume
- applicant's particular research interest(s) as indicated in supplemental application
- available funding/space in their research lab

After the application is submitted, applicants should contact faculty (<https://foodsci.wisc.edu/faculty.php>) members directly (via email) to discuss research opportunities in their labs.

Students interested in applying for the food science program should look closely at the website (http://www.foodsci.wisc.edu/grad_apply.php) for specific information about the admissions process.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from

the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

We recommend that your application be complete by the application deadlines in order to be considered for funding. Financial assistance is sometimes available to qualified individuals in the form of research assistantships, teaching assistantships, or fellowships. Fellowships are granted to students meeting specific criteria and with outstanding academic records. Research assistantships are awarded by individual professors through funds available to their research programs. Funding is awarded on a competitive basis and renewed annually pending the student's satisfactory progress. (Teaching assistant positions in food science are available only to students who have already been enrolled for at least two semesters.)

Please be advised that you do not need to make a separate application for financial support as your admission application will also serve as an application for assistantships and fellowships.

Prospective students are encouraged to search and apply for **external funding sources** (scholarships and fellowships) on their own. (If faculty do not have funding or lab space available, they often do not accept new students into their labs.) Additionally, prospective students are encouraged to apply for graduate assistantship (teaching, research, or project) positions in other UW–Madison departments to potentially defray the costs of their studies. See Graduate School Funding pages (<https://grad.wisc.edu/studentfunding/steps>) for more information.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely

online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum 30 credits

Credit Requirement

Minimum 16 credits

Residence Credit Requirement

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements

The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of incomplete (I) are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Students are required to have a graduate program advisory committee (GPAC) meeting once each year to monitor progress toward their degree.

The presentation for the graded FOOD SCI 900 Seminar Advanced must be given a semester before or in the semester of the defense.

Master's students are required to defend their thesis after they have cleared their record of all Incomplete and Progress grades (other than research and thesis) and deposit the final thesis to the Memorial Library.

Language Requirements Food Science does not have a foreign language requirement.

REQUIRED COURSES

Code	Title	Credits
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Students are expected to have taken one course each in organic chemistry and biochemistry. If they enter the program without these courses, students are required to take them before graduating.

Degree Requirements

Food Science Core Courses ¹

FOOD SCI 410	Food Chemistry
FOOD SCI 432	Principles of Food Preservation
FOOD SCI/ MICROBIO 325	Food Microbiology

4 credits of FOOD SCI (600, 610-679, 700-899) or closely related courses (Any graduate level)

Statistics

Students must take a course in statistics if they have not done so prior to entering the program. Typically students will take:

STAT/F&W ECOL/ Statistical Methods for Bioscience I
HORT 571

or

STAT/F&W ECOL/ Statistical Methods for Bioscience II
HORT 572

Graduate Seminar

Students must enroll in this course every semester they are in the program:

FOOD SCI 900 Seminar Advanced ²

Students may take courses with the graduate-level attribute (G50%) in Food Science and related disciplines to meet the 30-credit minimum requirement.

- ¹ If students have taken similar "Food Science Core" courses prior to entering the program, these courses may be waived.
- ² The semester students present their research, this course is graded. Otherwise, students take it as Satisfactory/Unsatisfactory.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

Prior graduate-level coursework from other institutions may not count toward minimum credit requirements for the major, but may satisfy specific food science course requirements.

UW-Madison Undergraduate

Prior coursework as a UW-Madison undergraduate student may not count toward minimum credit requirements for the major, but may satisfy specific food science course requirements.

UW-Madison University Special

Prior coursework taken as a University Special student may not count toward minimum credit requirements for the major, but may satisfy specific food science course requirements.

PROBATION

Candidates not making satisfactory progress will be placed on probation. If this probationary status is not resolved by the end

of the semester in which it is initiated, the candidate may be dismissed by their faculty advisor.

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. Students can be suspended from the Graduate School if they do not have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis. An advisor is a faculty member or affiliate faculty member from the major department responsible for providing advice about the student's coursework, supervising the student's research, and acting as a mentor to the student through the student's graduate career.

The student's graduate program advisory committee (GPAC) also is involved in advising of the student in various stages of their studies to monitor and ensure they are making satisfactory progress toward a degree. The M.S. GPAC should consist of at least 3 members as detailed in the Food Science Graduate Student Handbook.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

It is expected that students will complete all degree requirements in two to three years.

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Students are admitted by faculty in the department through direct admission. Faculty also determine who will receive funding which is dependent upon available funds from grants.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Understands, articulates, critiques and elaborates core paradigms in Food Science.
2. Recognizes that life-long learning is critical for continued personal and professional development.

3. Complies with principles of ethical and professional conduct.
4. Sources and assembles evidence to address questions or identify gaps in knowledge in the field of food science.
5. Evaluates and synthesizes information to address technical challenges.
6. Selects research methods and practices appropriate to discovery activities.
7. Creates knowledge that contributes to the field of food science.
8. Clearly and effectively communicates technical information in oral and written formats.
9. Works effectively within a team.

PEOPLE

Faculty: Professors Damodaran, Etzel, Hartel, Ingham, Lucey, Parkin, Rankin (chair), Steele; Assistant Professors Bolling, Huynh, Ikeda, van Pijkeren

FOOD SCIENCE, PH.D.

The graduate program in the Department of Food Science ranks among the best of its kind in the United States. Strong faculty research groups exist in food chemistry, food engineering, food microbiology, and food safety. The Ph.D. track in these areas combine an array of in-depth courses with the use of advanced research methods for studying food properties: chemical, physical, physiological, and bioactive characteristics; material properties; microbial control and safety; sensory quality; procedures for the processing, storage, and preservation of foods.

Research areas in which the department has special expertise include: chemical attributes of proteins, enzymes, lipids, flavors, bioactive components, and pigments; processes for crystallizing, separating, freezing, and drying; food safety (detection, control, and mechanistic action of pathogenic microorganisms, and undesirable chemicals in food); process optimization and validation of critical processing limits. Commodity foci include: dairy products, confectionery products, fruits and vegetables, muscle foods, and fermented products.

The department occupies Babcock Hall, a building with excellent facilities for instruction and research. Availability of appropriate instruments, equipment, and pilot-plant facilities enables research on the above topics to be conducted in a manner that has impact worldwide.

About 40–50 students from many countries are currently pursuing both the M.S. and Ph.D. degrees in the areas mentioned above. This includes some graduate students working in programs associated with the Food Research Institute and closely allied departments.

Individuals obtaining advanced degrees in food science will find employment opportunities in academic instruction and research, government research or regulatory programs, and industrial research, development, or quality assurance. Historically, the department's placement record for graduating students has been very good.

ADMISSIONS

Students who are admitted to the program must meet the Graduate School minimum requirements (<https://grad.wisc.edu/admissions/requirements>), including completion of a bachelor's degree which typically consists of a satisfactory undergraduate education in fields such as food science, dairy science, chemistry, most biological sciences (e.g., biochemistry, microbiology, nutrition), and engineering (especially chemical and agricultural). To enter the program, students must have taken at least one course in biochemistry and one course in organic chemistry.

APPLICATION DEADLINES:

Fall semester—January 15 (prior to the fall semester)
Spring semester—September 1 (prior to the spring semester)

The *minimum* test scores required to be *eligible to be "admissible"* to the Food Science graduate program are the following:

GRE	Verbal: 148 Quantitative: 148 Analytical Writing: 3.5
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English Proficiency Test	TOEFL: 92 IELTS: 7.0 MELAB: 82 (only one English test needs to be taken)
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Admissibility does NOT equal admission. Admissibility means applicants have met the minimum requirements to be *eligible* for admission. Applicants recommended for admission generally have higher test scores that are competitive with the top 50% of GRE scores among individuals intent on pursuing graduate studies in Life Sciences in the U.S. (median scores of V: 151, Q: 151, AW: 3.5). Recommendation for admission is determined solely by the faculty member. Final admission is determined by the Graduate School.

Recommendation for admission is made by an individual food science or affiliated faculty member (<https://foodsci.wisc.edu/faculty.php>) usually based on the review of the following:

- applicant's online application (<https://grad.wisc.edu/admissions/process>)
- academic record (scanned PDF academic transcripts)
- official test scores (sent directly from the testing agency (code: 1846)) of Graduate Record Exams (GRE) (<https://www.ets.org>) and English proficiency test (non-native English speaking applicants (<https://grad.wisc.edu/admissions/requirements>) only)
- recommendation letters (three)
- personal statement (reasons for graduate study) up to two pages double-spaced
- CV or resume
- applicant's particular research interest(s) as indicated in supplemental application
- available funding/space in their research lab

After the application is submitted, applicants should contact faculty (<https://foodsci.wisc.edu/faculty.php>) members directly (via email) to discuss research opportunities in their labs.

Students interested in applying for the food science program should look closely at the website (http://www.foodsci.wisc.edu/grad_apply.php) for specific information about the admissions process.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

We recommend that your application be complete by the application deadlines in order to be considered for funding. Financial assistance is sometimes available to qualified individuals in the form of research assistantships, teaching assistantships, or fellowships. Fellowships are granted to students meeting specific criteria and with outstanding academic records. Research assistantships are awarded by individual professors through funds available to their research programs. Funding is awarded on a competitive basis and renewed annually pending the student's satisfactory progress. (Teaching assistant positions in food science are available only to students who have already been enrolled for at least two semesters.)

Please be advised that you do not need to make a separate application for financial support as your admission application will also serve as an application for assistantships and fellowships.

Prospective students are encouraged to search and apply for **external funding sources** (scholarships and fellowships) on their own. (If faculty do not have funding or lab space available, they often do not accept new students into their labs.) Additionally, prospective students are encouraged to apply for graduate assistantship (teaching, research, or project) positions in other UW–Madison departments to potentially defray the costs of their studies. See Graduate School Funding pages (<https://grad.wisc.edu/studentfunding/steps>) for more information.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 51 credits

Minimum Residence Credit Requirement 32 credits

Minimum Graduate Coursework Requirement Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of incomplete (I) are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Students are required to have a graduate program and advisory committee (GPAC) meeting once each year to monitor progress toward their degree.

Doctoral students are required to take a preliminary/oral examination after they have cleared their record of all Incomplete and Progress grades (other than research and thesis).

Defense and deposit of the doctoral dissertation with the Graduate School is required.

Additional requirements determined by the department:

The preliminary exam cannot be taken until 39 graduate residence credits are completed as well as ALL required coursework except for FOOD SCI 990 Research and 1 credit of graded FOOD SCI 900 Seminar Advanced (student gives a seminar presentation and class is taken for a grade).

Language Requirements Food Science does not have a foreign language requirement.

Doctoral Minor/Breadth Requirements All doctoral students are required to complete a minor. Option A minor: credit requirements are set by the host department where the courses are taken. Option B (distributed) minor: 10 credits are required (courses numbered 500 or above) from more than one department and approved by the student's graduate program advisory committee (GPAC). The Option B (distributed) minor must have a related thread running through their coursework (also called a common theme).

Minor coursework must be completed before, or by end of, the semester in which the prelim is taken.

REQUIRED COURSES

Code	Title	Credits
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Students are expected to have taken one course each in organic chemistry and biochemistry. If they enter the program without these courses, students are required to take them before graduating.

Degree Requirements

Food Science Core Courses ¹

FOOD SCI 410	Food Chemistry	
FOOD SCI 432	Principles of Food Preservation	
FOOD SCI/ MICROBIO 325	Food Microbiology	

8 credits of FOOD SCI (600, 610-679, 700-899) or closely related courses (Any graduate level)

Statistics

Students must take a course in statistics if they have not done so prior to entering the program. Typically students will take:

STAT/F&W ECOL/ HORT 571	Statistical Methods for Bioscience I
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or

STAT/F&W ECOL/ HORT 572	Statistical Methods for Bioscience II
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Teaching Experience Requirement

All students are required to take a teaching pedagogy course in addition to either holding a TA position or taking the FOOD SCI 799 practicum course.

FOOD SCI 799 Practicum in Food Science
Teaching

or

A Teaching Assistant (TA) position in any department

Graduate Seminar

Students must enroll in FS 900 every semester they are in the program.

FOOD SCI 900 Seminar Advanced ²

Students may take courses with the graduate-level attribute (G50%) in Food Science and related disciplines to meet the 51-credit minimum requirement.

¹ If students have taken similar "Food Science Core" courses prior to entering the program, these courses may be waived.

² Two graded graduate seminars are required (one before the prelim and one before graduation). The semester students present their research, this course is graded. Otherwise, students take it as Satisfactory/Unsatisfactory.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

Prior graduate-level coursework from other institutions may not count toward minimum credit requirements for the major, but may satisfy specific food science course requirements. No more than 6 credits from prior graduate level coursework may be applied toward fulfillment of the distributed minor requirement. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW-Madison Undergraduate

Prior coursework as a UW-Madison undergraduate student may not count toward minimum credit requirements for the major, but may satisfy specific food science course requirements.

UW-Madison University Special

Prior coursework taken as a University Special student may not count toward minimum credit requirements for the major, but may satisfy specific food science course requirements.

PROBATION

Candidates not making satisfactory progress will be placed on probation. If this probationary status is not resolved by the end of the semester in which it is initiated, the candidate may be dismissed by their faculty advisor.

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. Students can be suspended from the Graduate School if they do not have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis. An advisor is a faculty member or affiliate faculty member from the major department responsible for providing advice about the student's coursework, supervising the student's research, and acting as a mentor to the student through the student's graduate career.

The student's graduate program advisory committee (GPAC) also is involved in advising of the student in various stages of their studies to monitor and ensure they are making satisfactory progress toward a degree. The Ph.D. GPAC should consist of at least 4 members as detailed in the Food Science Graduate Student Handbook. The Graduate School requires that at least three committee members are designated as readers. Readers are committee members who commit themselves to closely reading, reviewing and approving the entire dissertation before it is deposited with the Graduate School.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

It is expected that students will complete all degree requirements in five years.

Dissertators cannot schedule their dissertation defense sooner than *six months* after the actual date of passing the preliminary examination.

A candidate for a doctoral degree who fails to take the final oral examination (thesis defense) and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination to be admitted to candidacy a second time. (per Graduate School Policy)

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Students are admitted by faculty in the department through direct admission. Faculty also determine who will receive funding which is dependent upon available funds from grants.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Articulates potentials and limits of core paradigms in food science; formulates ideas and extrapolations beyond current boundaries of knowledge.
2. Develops breadth through competencies in minor field(s) of study.
3. Fosters ethical and professional conduct.
4. Critically evaluates evidence to articulate research questions and develop appropriate research hypotheses.
5. Formulates an effective experimental design and develops appropriate methodology to address problems in a systematic manner.
6. Creates knowledge that makes a substantive contribution to the field and articulates how society may benefit.
7. Communicates complex ideas in a succinct and understandable manner to diverse audiences.
8. Develops mentoring and teaching skills.

PEOPLE

Faculty: Professors Damodaran, Etzel, Hartel, Ingham, Lucey, Parkin, Rankin (chair), Steele; Assistant Professors Bolling, Huynh, Ikeda, van Pijkeren

FOREST AND WILDLIFE ECOLOGY

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Forestry, Doctoral Minor (p. 578)
- Forestry, M.S. (p. 579)
- Forestry, Ph.D. (p. 581)
- Wildlife Ecology, Doctoral Minor (p. 584)
- Wildlife Ecology, M.S. (p. 585)
- Wildlife Ecology, Ph.D. (p. 587)

PEOPLE

PROFESSORS

Bowe, Scott
Drake, David
Karasov, William

Kruger, Eric
Mladenoff, David
Radeloff, Volker
Ribic, Christine
Rickenbach, Mark (chair)
Samuel, Michael
Stanosz, Glen
Townsend, Philip
Van Deelen, Timothy

ASSOCIATE PROFESSORS

Lutz, R. Scott
Ozdogan, Mutlu
Pauli, Jonathan
Peery, M. Zach
Pidgeon, Anna
Rissman, Adena

ASSISTANT PROFESSORS

Johnston, Craig
Zuckerberg, Benjamin

AFFILIATED AND ADJUNCT FACULTY

Alix-Garcia, Jennifer (Agriculture and Applied Economics)
Allison, R. Bruce (adjunct)
Balster, Nick (Soil Science)
Lindroth, Richard (Entomology)
Marin-Spiotta, Erika (Geography)
Meine, Curt (adjunct)
Meyer, Michael (adjunct)
Raffa, Kenneth (Entomology)
Santana-Castellon, Eduardo (adjunct)

FACULTY ASSOCIATE

Berkelman, James

FORESTRY, DOCTORAL MINOR

ADMISSIONS

Please see the Department of Forest and Wildlife Ecology's Graduate Study—Overview page (https://forestandwildlifeecology.wisc.edu/academics/21417982244_4e0823cb05_k/application-process) for additional information including a form to fill out for the minor.

REQUIREMENTS

The doctoral minor in Forestry is designed for students who wish to receive an Option A External Minor in Forestry to augment their Ph.D. curriculum. This minor option is not available to students pursuing a Ph.D. in Forestry.

Students who elect Forestry as a minor in their training for the doctorate will take at least 9 credits of courses. The courses will be determined by the student's interest after consultation with the Forestry Graduate Programs Chair.

PEOPLE

PROFESSORS

Bowe, Scott
 Drake, David
 Karasov, William
 Kruger, Eric
 Mladenoff, David
 Radeloff, Volker
 Ribic, Christine
 Rickenbach, Mark (chair)
 Samuel, Michael
 Stanosz, Glen
 Townsend, Philip
 Van Deelen, Timothy

ASSOCIATE PROFESSORS

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FACULTY ASSOCIATE

Berkelman, James

FORESTRY, M.S.

The Department of Forest and Wildlife Ecology offers graduate education and training in a number of areas leading to the master of science and/or the doctor of philosophy in forestry or wildlife ecology. The program takes pride in its outstanding research reputation and the success of graduates working throughout the world. The wildlife ecology program was founded by Aldo Leopold in 1939, and has maintained his vision and legacy of excellence in current research and graduate training activities. Leopold's career spanned two professions, forestry and wildlife conservation, so the program strives to maintain excellence in both fields.

Master's and doctoral work in forestry is offered in the following areas: forest ecology, silviculture, forest ecosystem analysis and management, landscape ecology and planning, forest stand dynamics, forest restoration ecology, tree physiology, remote sensing of forests and natural resources, natural resource policy, social forestry, forest

management, ecosystem services, and economics of forests and natural resources.

ADMISSIONS

The Graduate School sets minimum requirements for admissions (<https://grad.wisc.edu/admissions/requirements>). Academic program admission requirements are often more rigorous than those set by the Graduate School. Please check the program's website (https://forestandwildlifeecology.wisc.edu/academics/21417982244_4e0823cb05_k/application-process) for details.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Additional information regarding funding for Forest and Wildlife Ecology graduate students is available on the departmental website (https://forestandwildlifeecology.wisc.edu/academics/21417982244_4e0823cb05_k/current-employment-opportunities).

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Students in the Forestry M.S. must complete certification paperwork to outline their coursework and prepare, publicly present, and defend a thesis.

Language Requirements Contact the program for information on any language requirements.

REQUIRED COURSES

The Forestry M.S. prescribes no specific graduate coursework due to the diversity of research areas available, and students select appropriate graduate-level coursework in consultation with their advisor and a graduate advisory committee.

However, there are still some minimum requirements that need to be met by all Forestry M.S. students. Students must complete a total of 30 credits include at least one professional development seminar and one graduate-level seminar. The rest of the credits and course work in selected in consultation with the majors advisor and committee. Student may use F&W ECOL 990 Research and Thesis credits toward these requirements.

Additional information and forms related to program-specific courses is available in the program handbook

(https://forestandwildlifeecology.wisc.edu/academics/21417982244_4e0823cb05_k/forestry-handbook).

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (https://forestandwildlifeecology.wisc.edu/academics/21417982244_4e0823cb05_k/forestry-handbook) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With M.S. committee approval and academic affairs committee approval, students are allowed to count no more than 14 credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

Students may count up to 7 credits of coursework numbered 300 level or above upon approval of the M.S. committee and the academic affairs committee. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison University Special

With M.S. committee approval and academic affairs committee approval, students are allowed to count no more than 15 credits of coursework numbered 300 or above taken as a UW–Madison Special student. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor.

An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

The department does not routinely accept new graduate students into the program unless they meet all admission requirements. In the vast majority of cases, students will only be admitted when: financial support for the student is currently in the hands of a faculty member; funding is assured by the time a student begins; or a student brings independent funding and has contacted a faculty member who agrees to serve as advisor.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Articulates, critiques, and elaborates the theories, research methods, and approaches to inquiry in the field of forest science.
2. Identifies sources and assembles evidence pertaining to questions or challenges in the field of forest science.
3. Demonstrates understanding of the field of forest science in a historical, social, and global context.
4. Evaluates and synthesizes information pertaining to questions or challenges in the field of forest science.
5. Selects and utilizes the most appropriate methodologies and practices.
6. Communicates clearly in ways appropriate to the field of forest science.

PEOPLE

PROFESSORS

Bowe, Scott
Drake, David
Karasov, William
Kruger, Eric

Mladenoff, David
Radeloff, Volker
Ribic, Christine
Rickenbach, Mark (chair)
Samuel, Michael
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FACULTY ASSOCIATE

Berkelman, James

FORESTRY, PH.D.

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ADMISSIONS

The Graduate School sets minimum requirements for admissions (<https://grad.wisc.edu/admissions/requirements>). Academic program admission requirements are often more rigorous

than those set by the Graduate School. Please check the program's website (https://forestandwildlifeecology.wisc.edu/academics/21417982244_4e0823cb05_k/application-process) for details.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

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REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely

online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement	51 credits
Minimum Residence Credit Requirement	32 credits
Minimum Graduate Coursework Requirement	Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.
Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.
Assessments and Examinations	Students in the Forestry Ph.D. must complete certification paperwork to outline their coursework, pass an oral preliminary examination, and prepare, publicly present, and defend a dissertation.
Language Requirements	Contact the program for information on any language requirements.
Doctoral Minor/Breadth Requirements	All doctoral students are required to complete a minor.

REQUIRED COURSES

The Forestry M.S. prescribes no specific graduate coursework due to the diversity of research areas available, and students select appropriate graduate-level coursework in consultation with their advisor and a graduate advisory committee.

However, there are still some minimum requirements that need to be met by all Forestry Ph.D. students. Students must complete a total of 51 credits include at least one professional development seminar and one graduate-level seminar. The rest of the credits and course work in selected in consultation with the majors advisor and committee. Student may use F&W ECOL 990 Research and Thesis credits towards these requirements.

Additional information and forms related to program-specific courses is available in the program handbook (https://forestandwildlifeecology.wisc.edu/academics/21417982244_4e0823cb05_k/forestry-handbook).

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (https://forestandwildlifeecology.wisc.edu/academics/21417982244_4e0823cb05_k/forestry-handbook) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

For well-prepared advanced students, the program may accept prior graduate coursework from other institutions toward the minimum graduate degree credit and minimum graduate coursework (50%) requirement. The minimum graduate residence credit requirement can be satisfied only with courses taken as a graduate student at UW–Madison. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

For well-prepared advanced students, the program may decide to accept up to 7 credits numbered 300 or above completed at UW–Madison toward fulfillment of minimum degree and minor credit requirements. This work would not be allowed to count toward the 50% graduate coursework minimum unless taken at the 700 level or above. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison University Special

The program may decide to accept up to 15 UW–Madison Special student credits as fulfillment of the minimum graduate residence, graduate degree, or minor credit requirements on occasion as an exception (on a case-by-case basis).

UW–Madison coursework taken as a Special student would not be allowed to count toward the 50% graduate coursework minimum unless taken at the 700 level or above and converted to graduate student credit (<https://grad.wisc.edu/acadpolicy/?policy=universityspecialstudentcreditconversion>). Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies. An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor.

To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

OTHER

The department does not routinely accept new graduate students into the program unless they meet all admission requirements. In the vast majority of cases, students will only be admitted when: financial support for the student is currently in the hands of a faculty member; funding is assured by the time a student begins; or a student brings independent funding and has contacted a faculty member who agrees to serve as advisor.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Articulates research problems, potentials, and limits with respect to theory, knowledge, or practice within the field of forest science.
2. Formulates ideas, concepts, designs, and/or techniques beyond the current boundaries of knowledge within the field of forest science.
3. Demonstrates breadth within their learning experiences.
4. Advances contributions of the field of forest science to society.

5. Creates research and scholarship that makes a substantive contribution.
6. Communicates complex ideas in a clear and understandable manner.

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 Meyer, Michael (adjunct)
 Raffa, Kenneth (Entomology)
 Santana-Castellon, Eduardo (adjunct)

FACULTY ASSOCIATE

Berkelman, James

WILDLIFE ECOLOGY, DOCTORAL MINOR

Wildlife ecology involves the use of scientific methods to understand how the environment influences wildlife and their populations, as well as the application of ecological research to the management and conservation of wildlife. Wildlife science makes use of a broad range of disciplines including ecology, organismal biology, ecosystem science, genetics, physiology, evolution, and quantitative methods. Wildlife Ecology doctoral minors are expected to have a general understanding of wildlife natural history, the ecology of their populations, basic research methods for

studying wildlife, and current problems in wildlife management and conservation.

ADMISSIONS

Please see the Department of Forest and Wildlife Ecology's Graduate Study-Overview page (https://forestandwildlifeecology.wisc.edu/academics/21417982244_4e0823cb05_k/application-process) for additional information including a form to fill out for the minor.

REQUIREMENTS

The Ph.D. Minor in Wildlife Ecology is designed for students who wish to receive an Option A External Minor in Wildlife Ecology to augment their Ph.D. curriculum. This minor option is not available to students pursuing a Ph.D. in Wildlife Ecology.

Students who elect Wildlife Ecology as a minor in their training for the doctorate will take at least 9 credits of courses. The courses will be determined by the student's interest after consultation with the Wildlife Ecology Graduate Programs Chair.

PEOPLE

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FACULTY ASSOCIATE

Berkelman, James

WILDLIFE ECOLOGY, M.S.

The Department of Forest and Wildlife Ecology offers graduate education and training in a number of areas leading to the master of science and/or the doctor of philosophy degree in Wildlife Ecology. The department takes pride in its program's outstanding research reputation and the success of graduates working throughout the world. The Wildlife Ecology program was founded by Aldo Leopold in 1939, and the program has maintained his vision and legacy of excellence in our current research and graduate training activities.

Master's and doctoral work in wildlife ecology typically focus on areas of wildlife ecology that reflect the expertise of the faculty, including but not limited to: behavioral ecology, physiological ecology, population dynamics, wildlife disease, community ecology, landscape ecology, wildlife management, wildlife-habitat linkages, molecular ecology, human dimensions, species distribution modeling, climate change, endangered species recovery, conservation biology, toxicology, and wildlife damage management.

The department is home to the U.S. Geological Survey, Wisconsin Cooperative Wildlife Research Unit. In this program, research in support of state and federal wildlife conservation programs are given priority.

In recent years, annual research support for the department's programs has averaged between three to four million dollars drawn from an array of federal, state, and conservation organizations and private donors. Competition for admission is very strong and not every admissible student can or will be offered financial support. Graduate assistantships and/or fellowships may be available for a limited number of well-qualified students. Before submitting an application for admission, interested students should contact individual faculty to determine whether an assistantship or other financial aid might be available. Once admitted, students work closely with major professors and an advisory committee to develop a research program.

ADMISSIONS

The Graduate School sets minimum requirements for admissions (<https://grad.wisc.edu/admissions/requirements>). Academic program admission requirements are often more rigorous than those set by the Graduate School. Please check the program's website (https://forestandwildlifeecology.wisc.edu/academics/21417982244_4e0823cb05_k/application-process) for details.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Additional information regarding funding for Forest and Wildlife Ecology graduate students is available on the departmental website (https://forestandwildlifeecology.wisc.edu/academics/21417982244_4e0823cb05_k/current-employment-opportunities).

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum 30 credits
Credit
Requirement

Minimum Residence Credit Requirement	16 credits
Minimum Graduate Coursework Requirement	Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (https://registrar.wisc.edu/course-guide/).
Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.
Assessments and Examinations	Wildlife Ecology M.S. students must complete a public entrance seminar, coursework certification meeting and paperwork, a public exit seminar, and a defense of a thesis.
Language Requirements	Contact the program for information on any language requirements.

REQUIRED COURSES

Additional information and forms related to program-specific courses is available in the program handbook (https://forestandwildlifeecology.wisc.edu/academics/21417982244_4e0823cb05_k/wildlife-ecology-handbook).

Students must complete a total of 30 credits including two graduate-level seminars, a course in statistics, and a technical skills course. Additionally, students must complete the prerequisite courses, but it is expected that a majority of these are completed during a student's undergraduate work. Courses used to satisfy the requirements will be selected in consultation with the advisor and approved by the Graduate Programs committee. An advisor may require additional coursework.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (https://forestandwildlifeecology.wisc.edu/academics/21417982244_4e0823cb05_k/wildlife-ecology-handbook) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With M.S. committee approval and Academic Affairs Committee approval, students are allowed to count no more than 14 credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

Students may count up to 7 credits of coursework numbered 300 or above upon approval of the M.S. committee and the Academic Affairs Committee. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison University Special

With M.S. or Ph.D. committee approval and Academic Affairs Committee approval and payment of the difference in tuition (between Special and graduate tuition), students are allowed to count no more than 15 credits of coursework numbered 300 or above taken as a UW–Madison Special student. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Additional information for students in the Department of Forest and Wildlife Ecology can be found on the Graduate

Programs page (https://forestandwildlifeecology.wisc.edu/academics/21417982244_4e0823cb05_k/application-process) for the department.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Articulates, critiques, and elaborates the theories, research methods, and approaches to inquiry and practice in the field of wildlife ecology and natural resource management.
2. Identifies sources and assembles evidence pertaining to questions or challenges in the field of wildlife ecology and natural resource management.
3. Demonstrates understanding of the field of wildlife ecology and natural resource management in a historical, social, and global context.
4. Evaluates and synthesizes information pertaining to questions or challenges in the field of wildlife ecology and natural resource management.
5. Communicates clearly in ways appropriate to the field of wildlife ecology and natural resource management.
6. Selects and utilizes the most appropriate methodologies and practices.

PEOPLE

PROFESSORS

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Berkelman, James

WILDLIFE ECOLOGY, PH.D.

The Department of Forest and Wildlife Ecology offers graduate education and training in a number of areas leading to the master of science and/or the doctor of philosophy degree in Wildlife Ecology. The department takes pride in its program's outstanding research reputation and the success of graduates working throughout the world. The Wildlife Ecology program was founded by Aldo Leopold in 1939, and the program has maintained his vision and legacy of excellence in our current research and graduate training activities.

Master's and doctoral work in wildlife ecology typically focus on areas of wildlife ecology that reflect the expertise of the faculty, including but not limited to: behavioral ecology, physiological ecology, population dynamics, wildlife disease, community ecology, landscape ecology, wildlife management, wildlife-habitat linkages, molecular ecology, human dimensions, species distribution modeling, climate change, endangered species recovery, conservation biology, toxicology, and wildlife damage management.

The department is home to the U.S. Geological Survey, Wisconsin Cooperative Wildlife Research Unit. In this program, research in support of state and federal wildlife conservation programs are given priority.

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ADMISSIONS

The Graduate School sets minimum requirements for admissions (<https://grad.wisc.edu/admissions/requirements>). Academic program admission requirements are often more rigorous than those set by the Graduate School. Please check the program's website (<https://forestandwildlifeecology.wisc.edu/>)

academics/21417982244_4e0823cb05_k/application-process) for details.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

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Additional information regarding funding for Forest and Wildlife Ecology graduate students is available on the departmental website (https://forestandwildlifeecology.wisc.edu/academics/21417982244_4e0823cb05_k/current-employment-opportunities).

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement	51 credits
Minimum Residence Credit Requirement	32 credits
Minimum Graduate Coursework Requirement	Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle).
Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.
Assessments and Examinations	Wildlife Ecology Ph.D. students must complete a public entrance seminar, coursework certification meeting and paperwork, a qualifying exam, a preliminary exam, a public exit seminar, and a defense of the dissertation.
Language Requirements	Contact the program for information on any language requirements.
Doctoral Minor/Breadth Requirements	All doctoral students are required to complete a minor.

REQUIRED COURSES

Additional information and forms related to program-specific courses is available in the program handbook (https://forestandwildlifeecology.wisc.edu/academics/21417982244_4e0823cb05_k/wildlife-ecology-handbook).

Students must complete a total of 51 credits including two graduate-level seminars, a course in statistics, and a technical skills course. Additionally, students must complete the prerequisite courses, but it is expected that a majority of these are completed during a student's undergraduate work. Courses used to satisfy the requirements will be selected in consultation with the advisor and approved by the Graduate Programs committee. An advisor may require additional coursework.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the

degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (https://forestandwildlifeecology.wisc.edu/academics/21417982244_4e0823cb05_k/wildlife-ecology-handbook) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

For well-prepared advanced students, the program may accept prior graduate coursework from other institutions toward the minimum graduate degree credit and minimum graduate coursework (50%) requirement. The minimum graduate residence credit requirement can be satisfied only with courses taken as a graduate student at UW–Madison. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

For well-prepared advanced students, the program may decide to accept up to 7 credits numbered 300 or above completed at UW–Madison toward fulfillment of minimum degree and minor credit requirements. This work would not be allowed to count toward the 50% graduate coursework minimum unless taken at the 700 level or above. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison University Special

With payment of the difference in tuition (between University Special and graduate tuition), the program may decide to accept up to 15 University Special student credits as fulfillment of the minimum graduate residence, graduate degree, or minor credit requirements on occasion as an exception (on a case-by-case basis). UW–Madison coursework taken as a University Special student would not be allowed to count toward the 50% graduate coursework minimum unless taken at the 700 level or above. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies. An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor.

To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

OTHER

Additional information for students in the Department of Forest and Wildlife Ecology can be found on the Graduate Programs page (https://forestandwildlifeecology.wisc.edu/academics/21417982244_4e0823cb05_k/application-process) for the department.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Articulates research problems, potentials, and limits with respect to theory, knowledge, or practice within the field of wildlife ecology and natural resource management.
2. Formulates ideas, concepts, designs, and/or techniques beyond the current boundaries of knowledge within the field of wildlife ecology and natural resource management.
3. Demonstrates breadth within their learning experiences.
4. Advances contributions of the field of wildlife ecology and natural resource management to society.
5. Communicates complex ideas in a clear and understandable manner.
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Berkelman, James

FRENCH AND ITALIAN

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- French Studies, MFS (p. 590)
- French, Doctoral Minor (p. 593)
- French, M.A. (p. 593)
- French, Ph.D. (p. 598)
- Italian, Doctoral Minor (p. 601)
- Italian, M.A. (p. 601)
- Italian, Ph.D. (p. 604)

PEOPLE

French Faculty: Professors Bousquet (chair), Debaisieux, Goodkin, Langer, Miernowski, Tochon, Vatan and Vila; Associate Professors Dima, El Nossery and Willis Allen; Assistant Professors Armstrong and Gipson; Faculty Associates Deitz and Irving; Senior Lecturer Miernowska

Italian Faculty: Professors Buccini, Livorni and Rumble; Associate Professors Menechella, Phillips-Court and Todorovic; Faculty Associate Eadie

FRENCH STUDIES, MFS

The Master of French Studies (MFS) is a professional degree earned in the Professional French Masters Program (PFMP). The PFMP is separate from the graduate program in French and Francophone literature. It is an interdisciplinary program combining advanced graduate-level course work in French language and Francophone culture with concentration-area course work in one of six professional concentration areas: French and business, French and education, French and international education, French and European Union affairs, French and international development, and French and media/arts/cultural production. The PFMP prepares graduate students for careers in business, government, nonprofit organizations, media, advertising, and the arts. All PFMP students do a professional internship, in their field, in a French-speaking country, and present a professional portfolio at the end of their studies.

ADMISSIONS

Spring 2018 application deadline:
November 1, 2017

FALL 2018 APPLICATION DEADLINES

Early acceptance deadline: **January 15, 2018**
 Regular application deadline: **April 20, 2018**

- Graduate School Application
- French and Italian Department Application (p. 591)
- Deadlines (p. 591)
- Questions (p. 591)

Step 1: Graduate School Application

The following materials go to the Graduate School (Office of Graduate Admissions, 225 Bascom, 500 Lincoln Drive, Madison, WI 53706-1380):

1. Graduate School Application (<https://grad.wisc.edu/apply>)(online)
 On the online application, you will need to list 3 people who will write letters of recommendation for you. (Remember to check the "email request" box when listing recommenders on the application.) At least one of the letters should address your overall proficiency, creativity, and style of expression in the French language. These may be professors, instructors, supervisors, or anyone who is familiar with your work and may give us a sense of your readiness for our program. Since the Graduate School will contact your recommenders directly via email, be sure to contact each recommender at least a month prior to when the letter of recommendation is needed to let them know that they will be contacted directly by the Graduate School.

Recommenders may send an email version of their recommendation directly to the department (mdeitz@wisc.edu or ramer2@wisc.edu).

- \$75 Application Fee (**waived for current and former TAPIF participants**) (<http://pfmp.wisc.edu/TAPIF-scholarship>)
- For international students whose native language is not English: MELAB or TOEFL (<http://www.toefl.org>) scores

Step 2: French Department Application Procedure

Submit the following items to the Department of French and Italian (ATTN: Graduate Admissions Coordinator, 618 Van Hise Hall, 1220 Linden Drive, UW–Madison, Madison, WI 53706):

- GRE Scores (<http://www.ets.org>) (not required for certificate program) institution code 1846 for UW–Madison
- Writing sample in French (a graded undergraduate term paper or equivalent)
- Complete official transcripts of all postsecondary study (TWO copies)
- Any letters of recommendation that recommenders prefer to send as a hard copy. (A signed nonconfidential recommendation form (<https://pfmp.wisc.edu/apply>) must accompany each letter that comes directly to us.)
- Résumé (CV)
- Completed Study Track Application Addendum (<https://pfmp.wisc.edu/apply>)
- Statement of purpose (1 page, in French).
What is your chosen concentration area, and how do you expect it, and the PFMP in general, to position you for a more satisfying professional life? Include any relevant experience you have had working or studying in your chosen concentration area. Although you may use dictionaries and other resources, we trust that this statement will be written without assistance.
- An oral interview in French, either in person or by telephone. (In certain cases, the oral interview will be waived.)

DEADLINES

Spring 2018 admission deadline: November 1, 2017.

Fall 2018 admission deadline: January 15, 2018 if applying to live at the French House (<http://uwfrenchhouse.org/residence>) or for early decision; April 20, 2018 for all others.

QUESTIONS?

Contact Ritt Deitz, Director: (608) 262-4090 or mdeitz@wisc.edu.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from

the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	Yes

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement Two-thirds of the degree coursework (20 of 30 total credits) must be completed in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements B or better in FRENCH 615.

Assessments Internship, oral examination, and professional portfolio.
and
Examinations

Language No additional language requirements.
Requirements

REQUIRED COURSES

Course Requirements: Before enrolling in their professional internship, students must complete the following 24 credits of French-language, UW–Madison coursework:

Code	Title	Credits
FRENCH 615	Grammaire avancée	3
FRENCH 616	Social Responsibility in Contemporary French-Language Professional Writing	3
FRENCH 617	Contemporary Skill Set Literature in French	3
FRENCH 618	Career Strategies for the French-Speaking World	2
FRENCH 623	Communication orale en situations professionnelles	3
FRENCH 642	Culture et sociétés dans le monde francophone	3
FRENCH 793	Professional French Masters Program Internship ¹	5
FRENCH 799	Independent Study (Individual Special Purposes Tutorial)	3
FRENCH 799	Independent Study (Individual Internship Issues) ²	2
FRENCH 901	Seminar-Materials and Methods of Research	3
Total Credits		30

¹ Must take 1 credit each semester for two semesters.

² Must take 2 credits during third semester, 3 credits during fourth semester.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

Full-time academic track: Students may not count coursework from other institutions.

Summer Institute track: With program approval, MFS students in the Summer Institute are allowed to waive up to 10 credits of their required PFMP credits, to recognize graduate work done at colleges or universities other than UW–Madison, if those courses satisfy program requirements and are 6 taken after the student has begun PFMP coursework.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

With program approval, University Special students enrolled in the capstone certificate "French Studies" may count up to 12 credits of coursework taken while they are capstone students toward the MFS degree. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

ADVISOR / COMMITTEE

Students will work closely with the PFMP executive director.

CREDITS PER TERM ALLOWED

13 credits

TIME CONSTRAINTS

Students who have allowed a session to "lapse" without enrolling during that session, and without approval to take a leave of absence, must reapply to the program if they desire to continue. See program for more details.

Leaves of absence are viable for one semester only.

OTHER

PFMP and certificate students may not be simultaneously enrolled in other graduate programs, nor are they eligible for project assistantships, teaching assistantships, or other forms of graduate support that provide tuition remission. Full-time academic students are automatically eligible for PFMP internship travel funding in

the form of a credit toward airline travel, and for selected private scholarships of roughly \$1,000 each.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Speak, read, listen and write in French at a level sufficient to work successfully among native French speakers in the student's concentration area.
2. Identify, select and retrieve primary and secondary sources in research projects, using techniques expected by professionals working in the student's concentration area.
3. Demonstrate a thorough understanding of the relationship between practices and perspectives in the cultures of the world's major French-speaking regions.
4. Articulate, critique, and elaborate the major professional approaches and best practices in the student's concentration area.
5. Demonstrate understanding of the student's concentration area in its historical and cultural context.
6. Successfully apply major professional approaches and best practices to professional projects in a French-speaking organizational setting outside the United States, in the student's concentration area.
7. Use the most appropriate methodologies for success when beginning or returning to work in the student's concentration area.

PEOPLE

FRENCH FACULTY AND ACADEMIC STAFF

Professors Bousquet and Debaisieux

PFMP Director Ritt Deitz; other faculty from across campus also teach in the program.

PFMP Assistant Director Mandi Schoville

FRENCH, DOCTORAL MINOR

Our graduate program offers training for teaching and research in all areas of French and Francophone literature and literary history, in critical theory, film, gender and queer studies, romance philology, and foreign language pedagogy.

Learning outcomes:

- Analyze and interpret several theories, research methods, and approaches to inquiry in this discipline

- Demonstrate adequate proficiency in French to lead a well-informed discussion of literature and culture
- Communicate clearly and appropriately in both written and spoken French

ADMISSIONS

To be accepted for graduate work in French toward the doctoral minor, a student should have had the equivalent of not less than four semesters of college French, and be capable of taking courses at the 300 level.

Interested students should consult with the graduate coordinator (Shawn Ramer, ramer@wisc.edu) and have the minor plan approved by the director of graduate studies.

REQUIREMENTS

A student must take a minimum of 9 credits in advanced (300 level and above) French literature, culture, language, and film, taught in French, including at least 3 credits at the 500 level or above. Neither FRENCH 391 French for Reading Knowledge nor French 365 nor any other course taught in English may be counted toward the doctoral minor in French.

Transfer of Credits

Students may be given credit for graduate or advanced undergraduate (300 level or above) courses in French literature taken at other universities, to be determined by the French Instructional Committee. No more than 3 such credits may be transferred.

PEOPLE

FRENCH FACULTY AND ACADEMIC STAFF

Professors Bousquet, Debaisieux, Goodkin, Langer, Miernowski, Tochon, Vatan, Vila

Associate Professors Dima, El Nossery, Willis Allen

Assistant Professors Armstrong, Gipson

Faculty Associates Deitz, Irving

Senior Lecturer Miernowska

FRENCH, M.A.

The M.A. and Ph.D. programs in French offer a first-rate faculty in all the areas of French and Francophone literature and culture. The program emphasizes broad coverage as well as specialization, and is organized so as to take advantage of the quality and range of the faculty. A Wisconsin Ph.D. has the ability to teach not only a very focused topic of research, but also much of the French literary tradition.

The French graduate program offers a wide array of courses and seminars each semester, providing a fairly even distribution across the various literary periods in most academic years. Courses typically meet two or three times a week and are quite broad in focus, generally exploring well-defined periods or genres, while seminars are held once a week for two hours and take up narrower topics in greater depth. Both the offerings and the requirements of the M.A. and Ph.D. programs are

designed to give students not only the tools necessary for specialization, but also an excellent knowledge of these extremely rich literary traditions.

Strong emphasis is placed on the practice of the language. French is the usual language of instruction in graduate courses and seminars. The department offers possibilities for international stay through exchange programs and further promotes the use of French through lectures, films, theater, and events at the French House.

The French Ph.D. program has a fine job placement record. Its students' solid foundation in the French and Francophone literary tradition is increasingly rare among North American literature programs, as is the extensive training students receive in language pedagogy.

ADMISSIONS

Our graduate program offers training for teaching and research in all areas of French and Francophone literature and literary history, in critical theory, film, gender and queer studies, romance philology, and foreign language pedagogy. Our large and varied faculty teach graduate courses in all areas and at regular intervals. Consequently, students for the M.A. degree can fulfill course requirements in any given two-year period, and candidates for the Ph.D. can complete course requirements for the Ph.D. within two years of obtaining their M.A. Our program is designed to allow well-qualified students to complete the M.A. in three semesters, and all other requirements for the Ph.D. except the dissertation in four more semesters. Applicants for the MA or PhD in French must submit all application materials by the application deadline of December 20.

The Graduate School sets minimum requirements for admissions (<https://grad.wisc.edu/admissions/requirements>).

Graduate School Application

Please refer to the following links:

- Consult the Graduate School website for complete information about graduate education opportunities at UW–Madison. This site is especially helpful in understanding Admissions Requirements developing a Timeline for application.
- You will need to list three people who will write letters of recommendation for you. They should be in faculty or permanent academic staff positions. Since the Graduate School will contact your recommenders directly via e-mail once you have completed your online application, you should be sure to contact each recommender at least a month prior to when the letter of recommendation is needed to let them know that they will be contacted directly by the Graduate School
- Submit the online Graduate School Application for Admission and pay the application fee.
- GRE (optional) institution code 1846 for UW–Madison
- Non-native English speakers must also submit results for the TOEFL or MELAB exams. Please note that the Graduate School requires that these scores be no older than two years old. This is calculated from the start of the term for which you are applying, NOT the date on which we receive your application.

Materials to be sent to the department:

- TA/Fellowship Application: To be considered for teaching assistantship or fellowship support, you must submit to the department a document listing all relevant experience since you began studying French. **There is no specific application form—it is**

a document, much like a CV, that you put together yourself. Include travel, study, or residence abroad. For teaching experience, be specific about subject, level, actual classroom hours/week, and age of students. Also indicate undergraduate and graduate honors, and how you would support yourself if UW was not able to offer support.

- Writing Sample (essay or paper in French—usually between 7 and 12 pages in length)
- List of French Literature and/or Civilization courses taken and grades received

Application materials should be sent to:

Graduate Coordinator, Shawn Ramer
ramer2@wisc.edu

or

Graduate Program Coordinator
Department of French and Italian
608 Van Hise Hall
1220 Linden Drive
University of Wisconsin–Madison
Madison, WI 53706

Questions? Please contact Graduate Coordinator Shawn Ramer.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

OTHER RESOURCES

The Department of French and Italian typically offers four years of guaranteed support for its incoming M.A. students who remain in good standing in the program. The most common form of support in our department is teaching assistantships. The basic teaching assistantship in our department is at the level of 36% time and comes with a stipend, tuition remission, and health benefits. For more information about our teaching assistantships, please visit our website (https://frit.wisc.edu/graduate/french/teaching_assistantships). We also offer fellowships, scholarships and project assistantships, as available.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement Over half of degree coursework (18 credits out of 30 total credits) must be completed in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements No other grade requirements.

Assessments and Examinations

1. Oral Proficiency Exam: Non-native speakers of French must take an Oral Proficiency Interview administered by the department and receive a rating of at least "advanced low" during their first semester. Depending on the results of this test, up to 6 credits of advanced French language courses and phonetics may be required.
2. M.A. Thesis: There is no M.A. thesis for the M.A.
3. M.A. Examination:
 - Purpose, Timing, Content, Sign-up Period: The M.A. exam is usually taken by the end of the fourth semester of study, although earlier is possible; should be taken before the fifth semester of study. Given three times a year, it tests students' mastery of a broad range of texts fundamental to French and Francophone studies and their ability to analyze texts, answer questions, and present arguments. The exam is based on a reading list available in 611 Van Hise and from the graduate coordinator. To take the exam, students sign up with the Graduate Coordinator by April 30th for the August exam; for the January and April exams they will be informed of sign-up deadlines.
 - Format: The written part of the M.A. exam lasts a total of 5 hours. In Part I (1 hour), students must choose one of three broad essay topics. Part I may be answered in English or in French. In Part II (3 hours), students are given a choice of two questions within each of the seven areas in our program. They must answer one question in each of six of the seven areas (30 minutes per answer). Part II must be answered in French. It is recommended the last of the 5 hours allotted for the exam be spent on revision.
 - Use of Materials, Academic Misconduct: Students are not allowed any notes, documents, electronic files, or books (with the exception of a dictionary). M.A. exams can be handwritten, but if students prefer to use their laptop computers or department computers, they should be aware that they are not allowed to consult any files or websites. As with all other methods of evaluating students' performance in the program, such as course assignments, the department conforms to university regulations governing academic misconduct. Students should refer to the following university website to familiarize themselves with the definition of and the serious consequences of academic misconduct: <https://conduct.students.wisc.edu/misconduct/academic-integrity/>.
 - Oral Exam: A student who fails the written part of the M.A. exam will not take the oral part. The oral usually takes place within a week after the written examination and is conducted entirely in French. It lasts about 45 minutes. Forty-eight hours before the oral, the candidate will be told which three books from the M.A. list will be used for selections and for the oral exam. THREE hours before the exam, the student will receive three short extracts, one from each of the books, and s/he will inform the graduate coordinator which extract s/he will analyze. The candidate will prepare an analysis of this extract in a classroom reserved for this purpose. There s/he will not have access to a computer but will write notes by hand that

may be brought to the exam, and may use a dictionary in the preparation of these notes. During the exam the candidate will give an analysis in French of the extract chosen, lasting approximately twenty minutes. Students should avoid reading a text word for word but will be able to use notes. This will be followed by 10–15 minutes of discussion of the student's analysis of the chosen extract, and then by a period of questions (lasting approximately 25 minutes). Some of these questions may pertain to the candidate's written exam, but others may involve other texts on the M.A. reading list, from other periods.

- Weak Passes, Failures: Students who are passable but weak on the oral part of the M.A. exam receive the M.A. degree but are not accepted into the Ph.D. program. In some cases, these students may be allowed to retake the oral exam one time if they wish to be reconsidered for admission into the Ph.D. program. If a student fails either part of the M.A. exam, s/he has one chance to retake it at the next exam session. In order to postpone the retake until a later session, the student must make a written request to the Graduate Studies Committee.

Language Requirements No language requirements.

REQUIRED COURSES

Code	Title	Credits
FRENCH 626	Critical Approaches to French Literature	3
FRENCH 820	College Teaching of French	3
FRENCH 825 or FRENCH 826	Cours de Grammaire Et de Style Cours de Grammaire Et de Style	3

Distribution Requirement: For the M.A., students must take a course or seminar in four of the seven areas of our program (Medieval, 16th through 20th centuries, and Francophonie).

Exchange Program Course Work: Please note that courses taken while graduate students are participating in one of our exchange programs abroad do not usually count toward the completion of departmental degree requirements, although exceptions may be considered if students can provide adequate documentation of their written work, and if the Graduate Studies Committee finds the work completed abroad to be comparable to a graduate course or seminar offered in our department.

Seminars: There is no seminar requirement for the M.A.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://frit.wisc.edu/sites/frit.wisc.edu/files/French%20MA%20PhD%20guidelines%202017-18%20Final.pdf>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 9 credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

With program approval, students are allowed to count no more than 9 credits of coursework numbered 300 or above taken as a UW–Madison University Special student. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

ADVISOR / COMMITTEE

Upon entering the department, students are alphabetically assigned to one of two graduate advisors. Students consult their advisor each semester about which courses to take.

By the time they take the M.A. exam, students must choose a faculty member as a mentor and inform the Graduate Studies Committee of their choice. Mentors help students explore areas of interest and give advice about professional development. Although students may change mentors until they begin preparing the Special Topic preliminary exam, they should inform a faculty member if they have chosen another mentor. Students should plan to remain with the mentors they have chosen by the time they write the Special Topic proposal, since the mentor will usually be a member of the Special Topic Committee and the Dissertation Committee.

All students are required to conduct a yearly progress report meeting with their advisor.

All students are required to discuss courses each term with their advisor.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Timely completion of M.A. requirements: The M.A. exam is usually taken by the end of the 4th semester of study, although earlier is possible. All requirements including the M.A. exam should be satisfied before the beginning of the 5th semester of graduate studies.

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Fellowships are available for high-ranking incoming students and dissertators. The department has a number of teaching assistantships which are granted on the basis of a candidate's previous academic record, knowledge of French, and seriousness of purpose in pursuing the Ph.D.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Show broad knowledge of French and Francophone literature and culture.
2. Master a broad range of texts fundamental to French and Francophone studies.
3. Demonstrate critical understanding of the major works in literature and the history of ideas that have been written in French from the Middle Ages up to the present.
4. Show the ability to analyze literary texts of various genres, and to formulate well-informed, interpretive arguments about them.
5. Identify, select, and retrieve primary and secondary sources pertaining to questions in French and Francophone literature.
6. Analyze and interpret the theories, research methods, and approaches to inquiry in this discipline.
7. Demonstrate adequate proficiency in French to lead a well-informed discussion of literature and culture.

8. Communicate clearly and appropriately in both written and spoken French

9. Demonstrate skills as teachers of the French language and French/Francophone culture at the college level: the ability to create level- and course-appropriate instructional objectives, activities, and assessments for teaching language, literature, and culture; the ability to use instructional technologies appropriately to enhance the teaching of language, literature, and culture; the capacity to incorporate insights from second language acquisition theory and current best practices in foreign language teaching into instruction.

10. Recognize and apply principles of ethical and professional conduct.

PEOPLE

FRENCH FACULTY AND ACADEMIC STAFF

Professors Bousquet, Debaisieux, Goodkin, Langer, Miernowski, Tochon, Vatan and Vila

Associate Professors Dima, El Nossery and Willis Allen

Assistant Professors Armstrong and Gipson

Faculty Associates Deitz and Irving

Senior Lecturer Miernowska

FRENCH, PH.D.

The M.A. and Ph.D. programs in French offer a first-rate faculty in all the areas of French and Francophone literature and culture. The program emphasizes broad coverage as well as specialization, and is organized so as to take advantage of the quality and range of the faculty. A Wisconsin Ph.D. has the ability to teach not only a very focused topic of research, but also much of the French literary tradition.

The French graduate program offers a wide array of courses and seminars each semester, providing a fairly even distribution across the various literary periods in most academic years. Courses typically meet two or three times a week and are quite broad in focus, generally exploring well-defined periods or genres, while seminars are held once a week for two hours and take up narrower topics in greater depth. Both the offerings and the requirements of the M.A. and Ph.D. programs are designed to give students not only the tools necessary for specialization, but also an excellent knowledge of these extremely rich literary traditions.

Strong emphasis is placed on the practice of the language. French is the usual language of instruction in graduate courses and seminars. The department offers possibilities for international stay through exchange programs and further promotes the use of French through lectures, films, theater, and events at the French House.

The French Ph.D. program has a fine job placement record. Its students' solid foundation in the French and Francophone literary tradition is increasingly rare among North American literature programs, as is the extensive training students receive in language pedagogy.

ADMISSIONS

Our graduate program offers training for teaching and research in all areas of French and Francophone literature and literary history, in critical theory, film, gender and queer studies, romance philology, and foreign language pedagogy. Our large and varied faculty teach graduate courses in all areas and at regular intervals. Consequently, students for the M.A. degree can fulfill course requirements in any given two-year period, and candidates for the Ph.D. can complete course requirements. Please check the program website for the Ph.D. details. within two years of obtaining their M.A. Our program is designed to allow well-qualified students to complete the M.A. in three semesters, and all other requirements for the Ph.D. except the dissertation in four more semesters. Applicants for the M.A. or Ph.D. in French must submit all application materials by the application deadline of December 20.

The Graduate School sets sets minimum requirements for admissions (<https://grad.wisc.edu/admissions/requirements>).

Graduate School Application

Please refer to the following links:

- Consult the Graduate School website for complete information about graduate education opportunities at UW–Madison. This site is especially helpful in understanding Admissions Requirements developing a Timeline for application.
- You will need to list three people who will write letters of recommendation for you. They should be in faculty or permanent academic staff positions. Since the Graduate School will contact your recommenders directly via email once you have completed your online application, you should be sure to contact each recommender at least a month prior to when the letter of recommendation is needed to let them know that they will be contacted directly by the Graduate School
- Submit the on-line Graduate School Application for Admission and pay the application fee.
- GRE (optional) institution code 1846 for UW–Madison
- Non-native English speakers must also submit results for the TOEFL or MELAB exams. Please note that the Graduate School requires that these scores be no older than 2 years old. This is calculated from the start of the term for which you are applying, NOT the date on which we receive your application.

Materials to be sent to the Department:

- TA/Fellowship Application: To be considered for teaching assistantship or fellowship support, you must submit to the department a document listing all relevant experience since you began studying French. **There is no specific application form—it is a document, much like a CV, that you put together yourself.** Include travel, study, or residence abroad. For teaching experience, be specific about subject, level, actual classroom hours/week, and age of students. Also indicate undergraduate and graduate honors, and how you would support yourself if UW was not able to offer support.
- Writing Sample (essay or paper in French—usually between 7 and 12 pages in length)
- List of French Literature and/or Civilization courses taken and Grades received

Application materials should be sent to:

Graduate Coordinator, Shawn Ramer
 ramer2@wisc.edu

-or-

Graduate Program Coordinator
 Department of French and Italian
 608 Van Hise Hall
 1220 Linden Drive
 University of Wisconsin-Madison
 Madison, WI 53706

Questions? Please contact Graduate Coordinator Shawn Ramer, ramer2@wisc.edu.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

OTHER RESOURCES

The Department of French and Italian typically offers three years of guaranteed support for its incoming Ph.D. students who remain in good standing in the program. The most common form of support in our department is teaching assistantships. The basic teaching assistantship in our department is at the level of 36% time and comes with a stipend, tuition remission and health benefits. For more information about our teaching assistantships, please visit our website (https://frit.wisc.edu/graduate/french/teaching_assistantships). We also offer lectureships to dissertators, fellowships, scholarships and project assistantships, as available.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement	51 credits
Minimum Residence Credit Requirement	32 credits
Minimum Graduate Coursework Requirement	Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.
Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	No other grade requirements.
Assessments and Examinations	Qualifying exam (if M.A. is from another institution); field exams; dissertation proposal; oral examination; dissertation; dissertation defense.
Language Requirements	Ph.D. language requirements vary according to field chosen.
Doctoral Minor/Breadth Requirements	All doctoral students are required to complete a minor.

REQUIRED COURSES

Code	Title	Credits
FRENCH 901	Seminar-Materials and Methods of Research (All dissertators must register for FRENCH 901 for three credits in place of FRENCH 990 during the Spring semester of the academic year following the academic year in which the Dissertation Proposal Oral Examination is completed successfully. If it is not offered, the requirement can be completed the following year.)	3

Other Course Requirements:

- **Distribution Requirement:** Students must complete the seven-area (Medieval, five-century, and Francophonie) distribution requirement started in the M.A., that is, they must complete a course or seminar in each of the remaining areas.
- **Breadth Requirement:** Students must take a second course or seminar in two of the five areas outside those of their preliminary examinations.
- **Seminar Requirement:** Students must take at least three seminars in the French section.
- **Medieval Specialists:** Students intending to write a dissertation on the medieval period must take additional courses in philology and paleography, as indicated by their advisor.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://frit.wisc.edu/sites/frit.wisc.edu/files/French%20MA%20PhD%20guidelines%202017-18%20Final.pdf>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 9 credits of graduate coursework from other institutions. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

With program approval, students are allowed to count no more than 9 credits of coursework numbered 300 or above taken as a UW–Madison University Special student. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

ADVISOR / COMMITTEE

All students are required to conduct a yearly progress report meeting with their advisor.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Fellowships are available for high-ranking incoming students and dissertators. The department has a number of teaching assistantships which are granted on the basis of a candidate's previous academic record, knowledge of French, and seriousness of purpose in pursuing the Ph.D.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Demonstrate thorough knowledge and critical understanding of two areas of French and Francophone literature, and of the historical and social contexts that have influenced the works examined in their dissertation.
2. Show the ability to synthesize and define a field of inquiry in a persuasive, coherent, and original way.
3. Make effective use of research sources, tools, and strategies in the field of French and Francophone literature.
4. Demonstrate, in the writing of their Ph.D. dissertation, an originality of thinking and insight that reaches beyond the current boundaries of knowledge within the field of study.
5. Articulate awareness of various questions, problems, and limitations implied by their framing of their topic.
6. Contribute substantially to their area of specialization, and be able to engage in a dialogue with other experts in that area.
7. Communicate and defend complex ideas in a clear and understandable manner, in both French and English.
8. Be capable of applying their investigative skills to a variety of fields within French-speaking literature and cultures.
9. Show reading knowledge of a second foreign language pertinent to their research specialty (and, for specialists of Medieval and 16th-century French literature, a third foreign language).
10. Be prepared to be effective teachers of French/Francophone literature, culture, and language at the college and university levels.
11. Foster ethical and professional conduct.

PEOPLE

FRENCH FACULTY AND ACADEMIC STAFF

Professors Bousquet (chair), Debaisieux, Goodkin, Langer Miernowski, Tochon, Vatan and Vila

Associate Professors Dima, El Nossery and Willis Allen

Assistant Professors Armstrong and Gipson

Faculty Associates Deitz and Irving

Senior Lecturer Miernowska

ITALIAN, DOCTORAL MINOR

A student must take a minimum of 12 credits in Italian literature, linguistics, or cinema at the 400 level or above (ITALIAN 340 Structures of Italian is allowed).

Students may be given credit for graduate or advanced undergraduate (300 level or above) courses in Italian taken at other universities prior

to enrollment at UW–Madison. No more than 6 such credits may be transferred.

PEOPLE

ITALIAN FACULTY

Professors Buccini, Livorni, Rumble

Associate Professors Menechella, Phillips-Court, Todorovic

Faculty Associate Eadie

ITALIAN, M.A.

The Italian program offers the master of arts and Ph.D. degrees. In most academic years, a wide array of courses and seminars is offered each semester to provide an even distribution across various literary periods. Courses typically meet two or three times a week and are broad in focus, generally exploring well-defined periods or genres. Seminars are held once a week for two hours and take up narrower topics in greater depth. Typical course offerings over a two- to three-year period cover all centuries of Italian literature and a wide variety of topics, including Italian culture, cinema, civilization, and linguistics. Strong emphasis is placed on the practice of the language; Italian is the usual language of instruction in graduate courses and seminars.

Graduate students gain a solid foundation not only in scholarship and criticism, but also in teaching. Most students have guarantees of support. The standard offer to an incoming teaching assistant provides a guarantee of three or four years of support, depending on whether the student has already done graduate work elsewhere. Study abroad programs and exchange agreements with individual universities provide opportunities for study and research in Italy. For example, the department frequently sends a graduate student to serve for a semester or a year as house fellow for the study program at the Villa Corsi-Salviati near Florence. In addition the department has exchange and cooperation arrangements with the Università di Siena and the Università di Firenze.

The department offers regular workshops designed to give students an overview of the job market and how to best prepare for it, making its placement record outstanding. As one of the largest Italian programs in North America, the department offers an unparalleled opportunity to study Italian literature, linguistics, and culture.

ADMISSIONS

Please Note: If you have received only a bachelor's degree and intend to go on to a Ph.D. after completing your M.A., please apply directly to the Ph.D. program.

We hope you will consider applying to our program. We offer an M.A. and Ph.D. in Italian.

Applicants for the M.A. or Ph.D. in Italian must submit all application materials by the application deadline of December 20. International students may have different deadlines due to the extra processing time required for visas and I-20 or IAP-66 forms. Please refer to International Student Services (<http://iss.wisc.edu/students>) for more information.

Graduate School Application

Please refer to the following links:

- Consult the Graduate School (<http://www.wisc.edu/grad>) website for complete information about graduate education opportunities at UW–Madison. This site is especially helpful in understanding Admissions Requirements (<http://grad.wisc.edu/admissions/requirements>) and developing a Timeline (<http://grad.wisc.edu/admissions/process>) for application.
- You will need to list three people who will write letters of recommendation (<https://grad.wisc.edu/admissions/faq>) for you. They should be in faculty or permanent academic staff positions. Since the Graduate School will contact your recommenders directly via e-mail once you have completed your online application, you should be sure to contact each recommender at least a month prior to when the letter of recommendation is needed to let them know that they will be contacted directly by the Graduate School
- Submit the online Graduate School Application for Admission (<https://apply.grad.wisc.edu/Account/Login?ReturnUrl=%2f>) and pay the application fee.
- GRE (<http://www.gre.org>) (optional) institution code 1846 for UW–Madison
- Non-native English speakers must also submit results for the TOEFL (<http://toefl.org>) or MELAB (<http://www.cambridgemicigan.org/melab>) exams. Please note that the Graduate School requires that these scores be no older than 2 years old. This is calculated from the start of the term for which you are applying, NOT the date on which we receive your application.

Materials to be sent to the department:

- TA/Fellowship Application: To be considered for teaching assistantship or fellowship support, you must submit to the department a document listing all relevant experience since you began studying Italian. **There is no specific application form—it is a document, much like a CV, that you put together yourself.** Include travel, study, or residence abroad. For teaching experience, be specific about subject, level, actual classroom hours/week, and age of students. Also indicate undergraduate and graduate honors, and how you would support yourself if UW was not able to offer support.
- writing sample (essay or paper in Italian—usually between 7 and 12 pages in length)
- If your referees are sending hard copies of your letters of recommendation to the department and are not electing to submit the letters electronically, you must print, fill out, and send a recommendation form to your recommender, who needs to include it with their letter.

Application materials should be sent to:

Graduate Coordinator, Shawn Ramer
 ramer2@wisc.edu

or

Graduate Program Coordinator
 Department of French and Italian
 608 Van Hise Hall
 1220 Linden Drive
 University of Wisconsin–Madison
 Madison, WI 53706

Questions? Please contact Graduate Coordinator Shawn Ramer (ramer2@wisc.edu).

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

The Department of French and Italian typically offers four years of guaranteed support for its incoming M.A. students who remain in good standing in the program. The most common form of support in our department is teaching assistantships. The basic teaching assistantship in our department is at the level of 36% time and comes with a stipend, tuition remission and health benefits. For more information about our teaching assistantships, please visit our website (https://frit.wisc.edu/graduate/italian/financial_assistance). We also offer fellowships, scholarships and project assistantships, as available.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely

online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum 30 credits

Credit Requirement

Minimum 16 credits

Residence Credit Requirement

Minimum Graduate Coursework Requirement Over half of degree coursework (18 credits out of 30 total credits) must be completed in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.25 GPA required.

Other Grade Requirements

No other grade requirements.

Assessments and Examinations Formal examination required. No thesis requirement.

Language Requirements No language requirements.

REQUIRED COURSES

Must take a total of 24 credits of Italian (<http://guide.wisc.edu/courses/italian>) courses numbered 500 and above. Students choose courses in consultation with their advisor.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://frit.wisc.edu/sites/frit.wisc.edu/files/Graduate%20Guidelines%20Rev%205-16-17.pdf>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 6 credits of graduate coursework from other institutions.

Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW-Madison Undergraduate

No credits from a UW-Madison undergraduate degree are allowed to count toward the degree.

UW-Madison University Special

With program approval, students are allowed to count no more than 6 credits of coursework numbered 300 or above taken as a UW-Madison Special student. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

ADVISOR / COMMITTEE

All students are required to conduct a yearly progress report meeting with their advisor.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

In most cases, the department offers four-year guarantees of support (for students with no prior graduate work) and three-year guarantees of support (for students with prior graduate work) to incoming students. During this period of guaranteed support, students usually hold a fellowship or teaching assistantship. Decisions on support are made in February and offers are usually sent out in early March.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Demonstrate critical understanding of the major works of Italian literature and culture from the Middle Ages up to the present.
2. Lead a well-informed discussion of literature and culture utilizing an adequate proficiency of Italian.
3. Master methods of literary and cultural analysis in their specific areas of interest.
4. Examine literary texts of various genres and write competent critical and analytical essays
5. Lead a well-informed discussion of literature and culture utilizing an adequate proficiency of Italian.
6. Identify, select, and retrieve primary and secondary sources pertaining to questions in Italian literature and culture.
7. Recognizes and applies principles of ethical and professional conduct.
8. Create level- and course-appropriate instructional objectives, activities, and assessments for teaching language, literature, and culture.
9. Use instructional technologies appropriately to enhance the teaching of language, literature, and culture.
10. Incorporate insights from second language acquisition theory and current best practices in foreign language teaching into instruction.

PEOPLE

ITALIAN FACULTY AND ACADEMIC STAFF

Professors Buccini, Livorni and Rumble

Associate Professors Menechella, Phillips-Court and Todorovic

Faculty Associate Eadie

ITALIAN, PH.D.

The Italian program offers the master of arts and Ph.D. degrees. In most academic years, a wide array of courses and seminars is offered each semester to provide an even distribution across various literary periods. Courses typically meet two or three times a week and are broad in focus, generally exploring well-defined periods or genres. Seminars are held once a week for two hours and take up narrower topics in greater depth. Typical course offerings over a two- to three-year period cover all centuries of Italian literature and a wide variety of topics, including Italian culture, cinema, civilization, and linguistics. Strong emphasis is placed on

the practice of the language; Italian is the usual language of instruction in graduate courses and seminars.

Graduate students gain a solid foundation not only in scholarship and criticism, but also in teaching. Most students have guarantees of support. The standard offer to an incoming teaching assistant provides a guarantee of three or four years of support, depending on whether the student has already done graduate work elsewhere. Study abroad programs and exchange agreements with individual universities provide opportunities for study and research in Italy. For example, the department frequently sends a graduate student to serve for a semester or a year as house fellow for the study program at the Villa Corsi-Salviati near Florence. In addition the department has exchange and cooperation arrangements with the Università di Siena and the Università di Firenze.

The department offers regular workshops designed to give students an overview of the job market and how to best prepare for it, making its placement record outstanding. As one of the largest Italian programs in North America, the department offers an unparalleled opportunity to study Italian literature, linguistics, and culture.

ADMISSIONS

Please Note: If you have received only a bachelor's degree and intend to go on to a Ph.D. after completing your M.A., please apply directly to the Ph.D. program.

We hope you will consider applying to our program. We offer an M.A. and Ph.D. in Italian.

Applicants for the M.A. or Ph.D. in Italian must submit all application materials by the application deadline of December 20. International students may have different deadlines due to the extra processing time required for visas and I-20 or IAP-66 forms. Please refer to International Student Services (<http://iss.wisc.edu/students>) for more information.

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- You will need to list three people who will write letters of recommendation (<https://grad.wisc.edu/admissions/faq>) for you. They should be in faculty or permanent academic staff positions. Since the Graduate School will contact your recommenders directly via e-mail once you have completed your online application, you should be sure to contact each recommender at least a month prior to when the letter of recommendation is needed to let them know that they will be contacted directly by the Graduate School
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Graduate Program Coordinator
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1220 Linden Drive
University of Wisconsin–Madison
Madison, WI 53706

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GRADUATE SCHOOL RESOURCES

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Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement	51 credits
Minimum Residence Credit Requirement	32 credits
Minimum Graduate Coursework Requirement	Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.
Overall Graduate GPA Requirement	3.30 GPA required.
Other Grade Requirements	No other grade requirements.

Assessments and Examinations	Qualifying exam (if M.A. is from another institution); preliminary examinations; dissertation proposal; oral examination; dissertation; dissertation defense.
Language Requirements	Reading proficiency in two languages other than English and Italian.
Doctoral Minor/Breadth Requirements	All doctoral students are required to complete a minor.

REQUIRED COURSES

Students admitted to the Ph.D. program who do not have the M.A. degree in Italian from UW–Madison are expected to have a background in the subject areas indicated by the M.A. reading list. Students in this category are required to pass the qualifying examination by the end of the second semester in the Ph.D. program. It may be taken only once.

Students must take a seminar in an area of Italian studies each semester until they have passed the preliminary examinations. In any given semester, this request may be waived upon approval by the associate chair for Italian. In addition, it is expected that students will complete the bulk of the coursework for their minor and foreign language reading requirements after taking their first set of preliminary examinations. Students are encouraged to plan ahead for a timeline to take these courses, and if a student wishes to take a course for their minor or foreign language requirement as part of their full-time load of 9 credits prior to that time, they may do so with approval from their advisor. Students should understand that it is very rare that requests to take minor or foreign language classes during the first year of study would be granted. In addition, advisors reserve the right to deny a student permission to take these classes (prior to the time of passing the first set of prelims) if doing so would directly conflict with a course offering in Italian which was important to the student's area of research.

At any time, students may take a course for their minor or foreign language reading requirement as a fourth course, in addition to the 9-credit requirement in Italian, without needing approval from their advisor.

Students choose courses in consultation with their advisor.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

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PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 6 credits of graduate coursework from other institutions.

Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

With program approval, students are allowed to count no more than 6 credits of coursework numbered 300 or above taken as a UW–Madison Special student. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

ADVISOR / COMMITTEE

All students are required to conduct a yearly progress report meeting with their advisor.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

OTHER

In most cases, the department offers four-year guarantees of support (for students with no prior graduate work) and three-year guarantees of support (for students with prior graduate work) to incoming students. During this period of guaranteed support, students usually hold a fellowship or teaching assistantship. Decisions on support are made in February and offers are usually sent out in early March.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Demonstrate thorough knowledge and critical understanding of their area of specialization.
2. Synthesize and define a field of inquiry in a persuasive, coherent, and original way.
3. Make effective use of research sources, tools, and strategies in the field of Italian literature and culture.
4. Demonstrate, in the writing of their Ph.D. dissertation, an originality of thinking and insight that reaches beyond the current boundaries of knowledge within the field of study.
5. Articulate awareness of various questions, problems, and limitations implied by their framing of their topic.
6. Contribute substantially to their area of specialization, and engage in a dialogue with other experts in that area.
7. Fosters ethical and professional conduct.
8. Communicate and defend complex ideas in a clear and understandable manner, in both Italian and English.
9. Show reading knowledge of a second foreign language pertinent to their research specialty.
10. Be prepared to be effective teachers of Italian culture, and language at the college and university levels.

PEOPLE

Professors Buccini, Livorni and Rumble

Associate Professors Menechella, Phillips-Court and Todorovic

Faculty Associate Eadie

GAYLORD NELSON INSTITUTE FOR ENVIRONMENTAL STUDIES

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Air Resources Management, Doctoral Minor (p. 607)
- Culture, History and Environment, Doctoral Minor (p. 608)
- Culture, History and Environment, Graduate/Professional Certificate (p. 609)
- Energy Analysis and Policy, Graduate/Professional Certificate (p. 609)
- Environment and Resources, Doctoral Minor (p. 611)
- Environment and Resources, M.S. (p. 611)
- Environment and Resources, Ph.D. (p. 614)
- Environmental Conservation, M.S. (p. 616)

- Transportation Management and Policy, Graduate/Professional Certificate (p. 625)
- Water Resources Management, Doctoral Minor (p. 625)
- Water Resources Management, M.S. (p. 626)

AIR RESOURCES MANAGEMENT, DOCTORAL MINOR

Emissions from human activities have repercussions on terrestrial and aquatic ecosystems as well as on local and global economics. These emissions, often dispersed over wide areas at low concentrations, can have profound and complex effects on human health. Recognition of such ubiquitous impacts has resulted in significant state and federal legislation and international initiatives that redefine how people live, work, and define their quality of life.

Air Resources Management (ARM) was introduced in 1993 to help meet the nationwide need in government, business, and industry for professionals in air quality management. This need stemmed in part from the adoption across the country of stringent air quality laws and regulations, notably the federal Clean Air Act Amendments of 1990 and their state and local counterparts.

ARM prepares students for professional air quality management work in government, business, and industry. ARM addresses air management issues at the local and ecosystem scales through interdisciplinary studies in science, economics, health, engineering, ecology, and policy. It acquaints students with a carefully planned mix of pertinent topics, including air system behavior, multimedia issues, regulation, analysis, planning, design, and control.

ADMISSIONS

ARM welcomes students in any doctoral degree program at UW–Madison. Students pursuing ARM are expected to have completed at least one college-level course in physics; chemistry; biology or environmental science; economics; social science in the area of government, law, institutions, or organizations; and calculus or another mathematics course beyond college algebra. Prerequisites may be waived upon recommendation of the ARM faculty.

REQUIREMENTS

Code	Title	Credits
Required Courses		
ENVR ST 539	Air Resources Science and Policy	3
CIV ENGR 423	Air Pollution Effects, Measurement and Control	3
ENVR ST 761	Colloquium in Air Pollution	1
Electives		3
The following are approved elective courses. Students may propose other courses for the elective requirements that do not appear on this list. Courses must be approved by their advisor and the ARM chair.		
<i>Skills and Methods Electives</i>		

ENVIR ST/A A E/ POP HLTH/ PUB AFFR 881	Benefit-Cost Analysis
ENVIR ST/A A E/ ECON 343	Environmental Economics
ENVIR ST 400	Special Topics in the Environment: Biological Aspects of Envir St ((Topic: Air Pollution Impacts on Vegetation))
ENVIR ST/ A A E/ECON/ URB R PL 671	Energy Economics
ENVIR ST/ LAND ARC/ SOIL SCI 695	Applications of Geographic Information Systems in Natural Resources
ENVIR ST/ CIV ENGR/ GEOG 377	An Introduction to Geographic Information Systems
LAW 848	Introduction to Environmental Law
STAT/F&W ECOL/ HORT 571	Statistical Methods for Bioscience I
<i>Advanced Electives</i>	
ATM OCN 310	Dynamics of the Atmosphere and Ocean I
ATM OCN 330	Physics of the Atmosphere and Ocean I
ATM OCN/ ENVIR ST 535	Atmospheric Dispersion and Air Pollution
ATM OCN 638	Atmospheric Chemistry
ATM OCN/ BOTANY/ ENVIR ST/ F&W ECOL/ GEOG/GEOSCI/ ZOOLOGY 980	Earth System Science Seminar
CBE 426	Mass Transfer Operations
CIV ENGR 427	Solid and Hazardous Wastes Engineering
CIV ENGR 609	Special Topics in Water Chemistry
CIV ENGR 629	Special Topics in Environmental Engineering
ENVIR ST/ ECON/POLI SCI/ URB R PL 449	Government and Natural Resources
ENVIR ST 400	Special Topics in the Environment: Biological Aspects of Envir St ((Topic: Risk and the Environment))
ENVIR ST/ M&ENVTOX/ PL PATH 368	Environmental Law, Toxic Substances, and Conservation
N E/C&E SOC/ I SY E/SOC 708	Societal Risk Management of Technological Hazards
M E 569	Applied Combustion
M E 770	Advanced Experimental Instrumentation

Total Credits

10

CULTURE, HISTORY AND ENVIRONMENT, DOCTORAL MINOR

The Center for Culture, History, and Environment (CHE) provides a home for faculty and graduate students from across campus to explore changing human-environment interactions across the broad sweep of history in an interdisciplinary setting. Graduate student involvement is at the core of CHE's mission, and graduate students from all disciplines are invited to take part in the full range of CHE's activities, events, scholarly collaborations, and professional development opportunities. CHE offers two main avenues for graduate student involvement: a non-curricular affiliation in the form of Graduate Student Associate status, and a curricular track in the form of the CHE Certificate or Ph.D. Minor.

Eligibility: Any currently enrolled graduate student at UW-Madison currently at the Ph.D. level and not pursuing any other minor field.

Benefits:

- Completed Ph.D. minor will appear on transcript
- Demonstrates rigorous academic engagement with interdisciplinary environmental studies
- Ability to construct a tailored minor course of study that counts as an "Option A" minor program

ADMISSIONS

To apply: Find a CHE faculty associate who is willing to serve as your CHE advisor. Complete the form available here (<http://nelson.wisc.edu/che/docs/application.pdf>) and submit with an unofficial transcript.

Admission process: CHE Curriculum Committee reviews applications on a rolling schedule.

REQUIREMENTS

Certificate students must complete at least 12–13 credits including an interdisciplinary methods seminar, a place-based workshop, a thematically coherent sequence of courses relating to past environmental and cultural change, and varying participation in the CHE environmental history colloquium. Courses should be chosen from at least two of the main divisions of UW–Madison curricula—the humanities, natural sciences, and social sciences—and should expose students to research approaches from outside their home discipline. Once a student and their advisor have developed and described the rationale for the chosen thematic sequence, it must be reviewed and approved by the CHE curriculum subcommittee. Possible thematic sequences might include the following: representations of nature, rural studies, urban studies, environmental conflict, environmental justice, environmental policy and politics, communities and forests, landscape change, environmental health and history, indigenous cultures and landscapes, and environmental communications.

PEOPLE

FACULTY EXECUTIVE PROGRAM COMMITTEE

Lynn Keller (Center Director and Certificate/Minor Chair), Richard Keyser, Catherine Middlecamp, Gregg Mitman, Larry Nesper, Amy Stambach, Sharon Wilcox, (Ex Officio), Paul Zedler (Ex Officio)

CULTURE, HISTORY AND ENVIRONMENT, GRADUATE/PROFESSIONAL CERTIFICATE

The CHE certificate, administered by the Nelson Institute's Center for Culture, History, and Environment, captures the spirit of interdisciplinarity at the heart of CHE and the collaborations that have been forged across the Nelson Institute, the College of Letters & Science, and the College of Agricultural & Life Sciences. Departments, programs, and schools represented by CHE faculty and graduate students include American Indian Studies, Anthropology, Art History, Botany, Community and Environmental Sociology, English, Forest and Wildlife Ecology, Gender and Women's Studies, Geography, History, History of Science, Journalism and Mass Communication, Law, Landscape Architecture, Limnology, and Zoology.

The environmental challenges we face today arise as much from human actions as from natural processes. Only at our peril do we forget that nature, in all its myriad forms, is inextricably bound up with every aspect of human culture, economy, and politics. In attending to past environmental and cultural change, and in synthesizing diverse research methods and approaches drawn from across the full spectrum of humanities, natural sciences, and social sciences, the certificate in culture, history, and environment (CHE) contributes in important ways to the understanding of past, present, and future environmental issues through interdisciplinary education and research.

Through the CHE Environmental History Colloquium, the annual place-based workshops, and the Tales from Planet Earth film festival, among other activities, CHE has created a lively, engaged community of faculty, graduate students, and others from a wide array of academic disciplines to investigate environmental and cultural change in the full sweep of human history. The CHE certificate considers applications from students in any graduate degree program at UW–Madison. By entering CHE early in their graduate studies and planning carefully, students often can select courses that satisfy both their degree program and CHE requirements.

CHE is not available as a stand-alone graduate degree. Master's and doctoral students who complete the requirements receive a certificate in CHE to supplement their graduate degree, or doctoral students can instead complete the program as an external minor. Doctoral students cannot claim CHE as both a certificate and an external minor. They must choose one or the other.

ADMISSIONS

To apply: Find a CHE faculty associate who is willing to serve as your CHE advisor. Complete the form available here (<http://nelson.wisc.edu/che/docs/application.pdf>) and submit with an unofficial transcript.

Admission process: CHE Curriculum Committee reviews applications on a rolling schedule.

REQUIREMENTS

Certificate students must complete at least 12–13 credits including an interdisciplinary methods seminar, a place-based workshop, a thematically coherent sequence of courses relating to past environmental and cultural change, and varying participation in the CHE environmental history colloquium. Courses should be chosen from at least two of the main divisions of UW–Madison curricula—the humanities, natural sciences, and social sciences—and should expose students to research approaches from outside their home discipline. Once a student and their advisor have developed and described the rationale for the chosen thematic sequence, it must be reviewed and approved by the CHE curriculum subcommittee. Possible thematic sequences might include the following: representations of nature, rural studies, urban studies, environmental conflict, environmental justice, environmental policy and politics, communities and forests, landscape change, environmental health and history, indigenous cultures and landscapes, and environmental communications.

LEARNING OUTCOMES

1. Gain an understanding of a significant variety of disciplinary approaches to the study of environmental change and the interactions of humans with the natural environment.
2. Learn to use differing forms of evidence and methods of analysis that can be employed to understand past environmental change and its human meanings.

PEOPLE

FACULTY EXECUTIVE PROGRAM COMMITTEE

Lynn Keller (Center Director and Certificate/Minor Chairperson), Richard Keyser, Catherine Middlecamp, Gregg Mitman, Larry Nesper, Amy Stambach, Sharon Wilcox (Ex Officio), Paul Zedler (Ex Officio)

ENERGY ANALYSIS AND POLICY, GRADUATE/PROFESSIONAL CERTIFICATE

The Energy Analysis and Policy certificate (EAP) provides students with the opportunity to customize their graduate experience, adding energy training to any graduate degree program offered at the University of Wisconsin–Madison. Graduate students can complete the EAP certificate by selecting courses that meet both their degree and EAP requirements. As such, most students can add EAP onto a degree without any additional time or cost. Many prospects choose UW–Madison specifically to participate in the EAP program, while others join EAP upon learning about it after matriculation.

Since its formation in 1980, EAP has provided students with the skills and knowledge needed by professionals in government, energy companies,

consulting firms, and other organizations. EAP draws students from across campus. Particularly large student groups from public policy, environmental studies, engineering, and urban planning pursue the certificate because of the program's interdisciplinary curriculum which considers a wide range of technical, economic, political, and social factors that shape energy policy formulation and decision-making.

ADMISSIONS

Generally, applicants to EAP should have completed at least one college-level course in each of the following areas: physical science (physics or chemistry); natural science (biological, environmental, geological, or atmospheric and oceanic); economics; an additional course in social sciences or humanities; and calculus or statistics. Occasionally, students lacking some prerequisites are admitted to the program, and the EAP admissions committee recommends courses to make up deficiencies.

HOW TO APPLY

Anyone currently enrolled as a graduate student at UW–Madison may apply to EAP by submitting a special application (click on the link below), a one- to two-page statement of interest, and a current UW–Madison transcript; and by asking the student's home department to send copies of his or her Graduate School application, GRE test results, transcripts, and letters of reference to the EAP certificate program's admissions committee c/o the Academic Programs Office, 70 Science Hall.

- Energy Analysis and Policy (EAP) application (https://uwmadison.co1.qualtrics.com/jfe/form/SV_aabdzwon1VZZ6N7)

WHERE TO SEND YOUR APPLICATION

All materials submitted in hard copy should be mailed or delivered to:

Nelson Institute for Environmental Studies
Attn: Jim Miller, Academic Programs Office
70 Science Hall, 550 N Park St
Madison WI 53706-1491

All materials submitted electronically (excluding those submitted through the Graduate School's online application) can be sent to the Nelson Institute's general graduate programs email address (grad@nelson.wisc.edu).

DEADLINES

Applications to EAP may be submitted at any time, but applicants are advised to check with the Academic Programs Office, 70 Science Hall, for relevant deadlines.

REQUIREMENTS

Code	Title	Credits
Required Courses		
ENVIR ST/ PUB AFFR/ URB R PL 809	Introduction to Energy Analysis and Policy	3
ENVIR ST/ PUB AFFR/ URB R PL 810	Energy Analysis Seminar	3
Energy Technology 3		
Choose one of the following:		

GEOSCI/ ENVIR ST 411	Energy Resources	
N E 571	Economic and Environmental Aspects of Nuclear Energy	
ENVIR ST/ BSE 367	Renewable Energy Systems	
M E/CBE 567	Solar Energy Technology	
E C E 356	Electric Power Processing for Alternative Energy Systems	
CBE 562	Special Topics in Chemical Engineering (Topic: Energy and Sustainability)	
BSE 460	Biorefining: Energy and Products from Renewable Resources	
M S & E 401	Special Topics in Materials Science and Engineering (Topic: Materials for Harnessing Energy)	
CIV ENGR 639	Special Topics in Geotechnical Engineering (Topic: Wind Energy Site/Design)	
Energy Economics and Business		3
Choose one of the following:		
ENVIR ST/ A A E/ECON/ URB R PL 671	Energy Economics	
A A E/ENVIR ST/ POP HLTH/ PUB AFFR 881	Benefit-Cost Analysis	
A A E 760	Frontiers in Environmental and Natural Resource Economics 1	
A A E 375	Special Topics (Topic: Climate Change Economics)	
AGRONOMY 375	Special Topics (Topic: Bioengineering and Sustainability)	
A A E/ECON/ F&W ECOL 531	Natural Resource Economics	
Energy Policy		3
Choose one of the following:		
ENVIR ST/ POLI SCI/ PUB AFFR 866	Global Environmental Governance	
ENVIR ST 402	Special Topics: Social Perspectives in Environmental Studies (Topic: Introduction to Air Quality)	
ENVIR ST/ ECON/POLI SCI/ URB R PL 449	Government and Natural Resources	
LAW 837	Regulated Industries	
URB R PL/ ENVIR ST 821	Resources Policy Issues: Regional and National	
Environmental Studies		3
Choose one of the following:		
AGRONOMY 875	Special Topics (Topic: Agroecosystems and Global Change)	
ENVIR ST/ ATM OCN 535	Atmospheric Dispersion and Air Pollution	

ENVIR ST/ POP HLTH 502	Air Pollution and Human Health
CIV ENGR 423	Air Pollution Effects, Measurement and Control
<hr/>	
Total Credits	18

PEOPLE

FACULTY EXECUTIVE PROGRAM COMMITTEE

Paul Wilson (Certificate Chairperson), Alan Carroll, Xiaodong Du, Tracey Holloway, Bernard Lesieutre, Gregory Nemet, Jonathan Patz, Douglas Reinemann, Scott Williams, Paul Zedler (Ex Officio)

ENVIRONMENT AND RESOURCES, DOCTORAL MINOR

Environment and Resources is an interdisciplinary program intended to prepare its graduates to undertake scholarly or professional work that requires a breadth of vision sufficient to encompass the complexity of environmental issues. We seek to strengthen our students' ability to integrate across areas of knowledge so they can create, apply, and transfer world-class data, concepts, and skills about the environment and its sustainability in a flexible, interdisciplinary way to serve the people of the state, region, and world. As a program our learning objectives entail the following. Our students should gain: (1) familiarity with methods and concepts from a range of disciplines relevant to environmental issues and outcomes (interdisciplinarity); (2) a broad understanding of environmental issues and solutions (breadth requirement); (3) knowledge from a coherent and rigorous course of study related to the thesis topic (depth requirement); (4) familiarity with quantitative and qualitative methods and methods of data analysis and presentation appropriate to the study of the environment (measure and analysis requirement); (5) a capacity to integrate knowledge and to make original contributions that improve understanding of environmental problems; (6) the ability to communicate research findings and environmental information generally in writing and orally to a broad audience, including stakeholders and the general public (thesis and defense); and (7) an understanding of professional and ethical responsibility (literature review).

Those minoring in Environment and Resources are expected to present a rationale for how they will use their coursework and related activities to accomplish our objective of strengthening a student's ability to understand and be able to address environmental problems in an integrative, interdisciplinary way.

ADMISSIONS

The responsibility of overseeing the administration of the minor rests with the Environment and Resources program chair. The chair may, at his or her discretion, delegate aspects of the oversight to a subcommittee of the Environment and Resources faculty executive program committee. For example, such a subcommittee could be charged with reviewing and ultimately approving the plans submitted by doctoral students wishing to minor in Environment and Resources. Staff in the Nelson Institute's

Academic Programs Office are charged with maintaining the paper and database records relevant to the minor.

For admission to the minor, students submit a form detailing the minor. On the form, the student is to (a) list the courses for the minor, (b) provide a title and brief (few sentences) description of the minor (e.g., water resources, remote sensing, energy analysis, public policy, environmental history), and (c) include the signature of the student's academic advisor indicating an endorsement of the proposed minor. Up to 3 of the 9 credits required for the minor may come from previous graduate coursework taken elsewhere. Any previous graduate coursework is to be clearly denoted as such, and the student is to include a transcript verifying where and when the course was taken.

REQUIREMENTS

The minor requires 9 credits of coursework. Because of the breadth of environmental studies, a fixed sequence is not prescribed, since the appropriate selection of courses will be dictated in large part by the coursework in the major degree. However, students are required to select courses that collectively give them insight into an area that can be understood only by combining insights from multiple disciplines. In most cases this will build off of a student's major field of study. For example, a student majoring in a laboratory or physical science might want to emphasize coursework in social sciences or humanities to give perspective on how natural science interfaces with social or humanistic concerns.

ENVIRONMENT AND RESOURCES, M.S.

Environment and Resources is a research program offering master's and Ph.D. degrees based on the premise that solutions to environmental challenges require interdisciplinary approaches. Faculty and students are oriented to environmental problems rather than to disciplines. Students are encouraged to explore the specific area that interests them by drawing on the insights and methods of multiple disciplines. The focus is on gaining the knowledge needed to understand the intellectual context of their work and the skills necessary to conduct original research. The program fosters experimentation and innovation, not the mastering of a narrowly defined set of prepackaged competencies. The objective is to produce graduates who are prepared to function comfortably in the complex professional and social communities within which solutions to environmental problems must be found.

The program mandates interdisciplinarity through curriculum requirements, the structure of the student's faculty advisory committee, and the research endeavor. Students are required to take some courses in diverse disciplinary topics and other courses that are intended to strengthen problem-solving skills. A thesis (M.S.) or a dissertation (Ph.D.) is required of all students. Each student's faculty advisory committee must consist of persons who collectively ensure interdisciplinary support and evaluation. Students can pursue interests over the full range of environmental studies from more of a physical or biological science research project to those emphasizing more of the social sciences or humanities including policy, environmental history, community action, or social justice. Students who feel a need to follow a more structured course of study may also pursue certificates in Culture, History, and

Environment or Energy Analysis and Policy. Any bachelor's degree from an accredited institution may be acceptable.

ADMISSIONS

DEADLINES

Application materials for Environment and Resources must be received by December 1 for admission to the following summer session or fall semester and by October 15 for admission to the following spring semester.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

In most cases Environment and Resources is unable to guarantee any funding to students. However, many of our students obtain funding through other departments on campus, and we recommend that students contact faculty or departments directly if they have teaching or research skills in specific areas. Individual faculty members occasionally have their own sources of support for research or project assistants, though we strongly urge students not to depend on these as guaranteed sources of funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses

and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules.

Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum 30 credits

Credit Requirement

Minimum 16 credits

Residence Credit Requirement

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements Grades of BC or C may be counted toward program requirements if they are offset by equivalent AB or A grades in other courses. A 3.00 average must be maintained in the student's breadth categories as well as their individual program focus category. With the exception of research credits, a maximum of 2 credits graded S may be counted toward program requirements if approved by the student's thesis committee and the program chair. Courses that are audited or graded pass/fail or credit/no credit will not count toward program requirements.

Assessments and Examinations All students must complete a program certification and a thesis. Students must pass a final thesis defense which constitutes the final examination.

Language Requirements No language requirements.

REQUIRED COURSES

Code	Title	Credits
Breadth Requirements		
Category 1: Natural Science ¹		6
Category 2: Social Science & Humanities ²		6
Category 3: Measurement & Analysis ³		6

Individual Program Focus & Research ⁴	12
Total Credits	30

- ¹ Students choose any biological sciences and/or physical sciences courses in the 300–999 range.
- ² Students choose any social sciences and/or arts & humanities courses in the 300–999 range.
- ³ Students choose any measurement/analysis/tools/methods courses in the 300–999 range.
- ⁴ Students choose any courses, in the 300–999 range, that pertain to their individual research and thesis endeavor. At least one graduate seminar (research or topical) is required, and up to six Research credits may be used toward this category.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<http://nelson.wisc.edu/graduate/environment-and-resources/requirements-and-forms-ms.php>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With thesis committee and program chair approval, students are allowed to count graduate coursework from other institutions. The number of such credits is determined on a case-by-case basis. Coursework completed five or more years prior to admission to the master's degree is not allowed to satisfy graduate degree or graduate coursework requirements.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the program.

UW–Madison University Special

With thesis committee and program chair approval, students are allowed to count up to 15 credits of coursework taken as a UW–Madison Special student. Such credits from courses numbered 300 and higher can count toward graduate residency and graduate degree requirements. Such credits from courses numbered 700 and higher can count toward the graduate coursework (50%) requirement. Coursework completed five or more years prior to admission to the program is not allowed to satisfy graduate residency, graduate degree, or graduate coursework requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could

result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

ADVISOR / COMMITTEE

All students must assemble a three-member thesis committee that represents a minimum of two departments, preferably no later than their third semester in the program. To meet the interdisciplinary requirement the committee must include members tenured in one of the natural sciences divisions (Biological Sciences, Physical Sciences) and one of the social sciences divisions (Social Studies, Arts & Humanities). Two of the three committee members must be members of the Graduate Faculty. The third, subject to approval of the program chair, may be any qualified person, on or off campus, who holds at least a master's degree.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

n/a

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PROGRAM RESOURCES

SUMMER WRITING RETREAT

A four-day weekend summer (early June typically) writing retreat led by emeritus faculty member Sharon Dunwoody is available to any student in the program who is in the process of undertaking a serious writing commitment like a thesis, dissertation, grant proposal, or class paper. There is a peer review component to this retreat, so all participants will share at least some parts of their work for feedback from the instructor and their peers.

LEARNING OUTCOMES

1. Demonstrate master's level knowledge of interdisciplinary environmental studies.
2. Demonstrate master's level knowledge of a substantive area of environmental studies, adequate to undertake their M.S. thesis.
3. Demonstrate master's level knowledge of research methodology appropriate to their substantive area of focus and appropriate for preparing their M.S. thesis.
4. Demonstrate skill in synthesizing the above goals (1-3) through preparation of a master's thesis.

PEOPLE

FACULTY EXECUTIVE PROGRAM COMMITTEE

Sara Hotchkiss (Program Chairperson), Anna Gade, Holly Gibbs, Leah Horowitz, Randall Jackson, Harvey Jacobs, Marty Kanarek, Christopher Kucharik, Gregory Nemet, Mutlu Ozdogan, Warren Porter, Stephanie Tai, Stephen Ventura, Paul Zedler (Ex Officio)

ENVIRONMENT AND RESOURCES, PH.D.

Environment and Resources is a research program offering master's and Ph.D. degrees based on the premise that solutions to environmental challenges require interdisciplinary approaches. Faculty and students are oriented to environmental problems rather than to disciplines. Students are encouraged to explore the specific area that interests them by drawing on the insights and methods of multiple disciplines. The focus is on gaining the knowledge needed to understand the intellectual context of their work and the skills necessary to conduct original research. The program fosters experimentation and innovation, not the mastering of a narrowly defined set of prepackaged competencies. The objective is to produce graduates who are prepared to function comfortably in the complex professional and social communities within which solutions to environmental problems must be found.

The program mandates interdisciplinarity through curriculum requirements, the structure of the student's faculty advisory committee, and the research endeavor. Students are required to take some courses in diverse disciplinary topics and other courses that are intended to strengthen problem-solving skills. A thesis (M.S.) or a dissertation (Ph.D.) is required of all students. Each student's faculty advisory committee must consist of persons who collectively ensure interdisciplinary support and evaluation. Students can pursue interests over the full range of environmental studies from more of a physical or biological science research project to those emphasizing more of the social sciences or humanities including policy, environmental history, community action, or social justice. Students who feel a need to follow a more structured course of study may also pursue certificates in Culture, History, and Environment or Energy Analysis and Policy. Any bachelor's degree from an accredited institution may be acceptable.

ADMISSIONS

DEADLINES

Application materials for Environment and Resources must be received by December 1 for admission to the following summer session or fall semester and by October 15 for admission to the following spring semester.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

In most cases Environment and Resources is unable to guarantee any funding to students. However, many of our students obtain funding through other departments on campus, and we recommend that students contact faculty or departments directly if they have teaching or research skills in specific areas. Individual faculty members occasionally have their own sources of support for research or project assistants, though we strongly urge students not to depend on these as guaranteed sources of funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 51 credits

Minimum Residence Credit Requirement 32 credits

Minimum Graduate Coursework Requirement Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements Grades of BC or C may be counted toward program requirements if they are offset by equivalent AB or A grades in other courses. A 3.00 average must be maintained in the student's breadth categories as well as their individual program focus category. With the exception of research credits, a maximum of 2 credits graded S may be counted toward program requirements if approved by the student's dissertation committee and the program chair. Courses that are audited or graded pass/fail or credit/no credit will not count toward program requirements.

Assessments and Examinations All students must complete an initial coursework proposal, preferably after their first year, as well as a final coursework proposal. Students must pass a qualifying examination, a preliminary examination, and a final dissertation defense which constitutes the final examination.

Language Requirements No language requirements.

Doctoral Minor/Breadth Requirements Due to the breadth and interdisciplinary nature of the program, Environment and Resources doctoral students are not required to pursue a minor.

REQUIRED COURSES

Code	Title	Credits
Breadth Requirements		
Category 1: Natural Science ¹		9

Category 2: Social Science & Humanities ²	9
Category 3: Measurement & Analysis ³	9
Individual Program Focus & Research ⁴	15
Total Credits	42

- Students choose any biological sciences and/or physical sciences courses in the 300–999 range.
- Students choose any social sciences and/or arts & humanities courses in the 300–999 range.
- Students choose any measurement/analysis/tools/methods courses in the 300–999 range.
- Students choose any courses, in the 300–999 range, that pertain to their individual research and dissertation endeavor. Above and beyond the 15 credits required for this category, students must also take at least two graduate seminars (research or topical) as well as a variable number of Research credits. Students may double count up to 9 credits with one of their breadth categories.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<http://nelson.wisc.edu/graduate/environment-and-resources/requirements-and-forms-phd.php>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With dissertation committee and program chair approval, students are allowed to count up to 24 credits of graduate coursework from other institutions. Coursework completed ten or more years prior to admission to the doctoral degree is not allowed to satisfy graduate degree or graduate coursework requirements.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the program.

UW–Madison University Special

With dissertation committee and program chair approval, students are allowed to count up to 15 credits of coursework taken as a UW–Madison Special student. Such credits from courses numbered 300 and higher can count toward graduate residency and graduate degree requirements. Such credits from courses numbered 700 and higher can count toward the graduate coursework (50%) requirement. Coursework completed ten or more years prior to admission to the program is not allowed to satisfy graduate residency, graduate degree, or graduate coursework requirements.

PROBATION

A semester GPA below 3.00 will result in the student being placed on academic probation. If a semester GPA of 3.00 is not attained during the subsequent semester of full time enrollment (or 12 credits of enrollment if enrolled part-time) the student may be dismissed from the program or allowed to continue for one additional semester based on advisor appeal to the Graduate School.

ADVISOR / COMMITTEE

All students must assemble a five-member dissertation committee that represents a minimum of three departments, preferably no later than their fourth semester in the program. To meet the interdisciplinary requirement the committee must include members tenured in one of the natural sciences divisions (Biological Sciences, Physical Sciences) and one of the social sciences divisions (Social Studies, Arts & Humanities). Four of the five committee members must be members of the Graduate Faculty. The fifth, subject to approval of the program chair, may be any qualified person, on or off campus, who holds a doctoral degree.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and be admitted to candidacy a second time.

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

n/a

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PROGRAM RESOURCES

SUMMER WRITING RETREAT

A four-day weekend summer (early June typically) writing retreat led by emeritus faculty member Sharon Dunwoody is available to any student in the program who is in the process of undertaking a serious writing commitment like a thesis, dissertation, grant proposal, or class paper. There is a peer review component to this retreat, so all participants will share at least some parts of their work for feedback from the instructor and their peers.

LEARNING OUTCOMES

1. Demonstrate doctoral level knowledge of interdisciplinary environmental studies.
2. Demonstrate doctoral level knowledge of a substantive area of environmental studies, adequate to begin preparing their Ph.D. dissertation.
3. Demonstrate doctoral level knowledge of research methodology appropriate to their substantive area of focus.
4. Demonstrate skill in conducting academic research and scholarly inquiry that advances the interdisciplinary field of environmental studies.

PEOPLE

FACULTY EXECUTIVE PROGRAM COMMITTEE

Sara Hotchkiss (Program Chairperson), Anna Gade, Holly Gibbs, Leah Horowitz, Randall Jackson, Harvey Jacobs, Marty Kanarek, Christopher Kucharik, Gregory Nemet, Mutlu Ozdogan, Warren Porter, Stephanie Tai, Stephen Ventura, Paul Zedler (Ex Officio)

ENVIRONMENTAL CONSERVATION, M.S.

The Nelson Institute's professional programs offer environmental leadership training in areas of identified and emerging need across our sector, convening people and perspectives from around the world and equipping graduates with the necessary environmental knowledge to tackle their next career challenge. We have two professional master's programs. Within the Environmental Conservation master of science degree, students can select a named option in either Environmental Conservation (p. 619) or in Environmental Observation & Informatics (p. 622).

Upon degree completion, graduates will receive an M.S. in Environmental Conservation with a named option in one of the above. The curriculum in our professional programs is designed in close consultation with leaders in environmental practice to meet emerging global challenges and demands. We offer our professional master's in an accelerated, 15-month blended curriculum with on-campus and remote experiences to accommodate working professionals and busy lives. Students are in Madison for the summer and fall semester—two of the most beautiful seasons in Wisconsin—and then have classes online in spring that can be taken wherever you are in the world. The final, fourth semester is spent completing the student's M.S. leadership project.

Learn more about:

- **ENVIRONMENTAL CONSERVATION NAMED OPTION (P. 619)**
- **ENVIRONMENTAL OBSERVATION & INFORMATICS NAMED OPTION (P. 622)**

ADMISSIONS

Students apply to the Master of Science in Environmental Conservation through one of the named options:

- Environmental Conservation (p. 619)
- Environmental Observation and Informatics (p. 622)

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Because of the immersive nature of our programs, with condensed time on campus and remote experiences, Environmental Conservation students are not eligible for any campus appointments such as teaching assistantships, project assistantships, research assistantships, or fellowships. This applies to both the Environmental Conservation and the Environmental Observation & Informatics named options. We encourage all students to apply for our Environmental Conservation tuition assistance program, and to seek additional sources of grants, scholarships, or loans. Students in the Environmental Conservation program's named options are not permitted to seek double, joint, or dual degrees.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

Note: The major is currently non-admitting. Students are admitted through one of the named options (sub-majors) below (p. 618).

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
No	No	No	Yes	Yes

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses

and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules.

Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum 32 credits

Credit Requirement

Minimum Residence Credit Requirement See either the M.S. named option in Environmental Conservation (<https://next-guide.wisc.edu/graduate/environmental-studies/environmental-conservation-ms/environmental-conservation-environmental-conservation-ms/#requirementstext>) or Environmental Observation and Informatics (<https://next-guide.wisc.edu/graduate/environmental-studies/environmental-conservation-ms/environmental-conservation-environmental-observation-informatics-ms/#requirementstext>) for the requirement information.

Minimum Graduate Coursework Requirement Half of degree coursework (16 credits out of 32 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements See either the M.S. named option in Environmental Conservation (<https://next-guide.wisc.edu/graduate/environmental-studies/environmental-conservation-ms/environmental-conservation-environmental-conservation-ms/#requirementstext>) or Environmental Observation and Informatics (<https://next-guide.wisc.edu/graduate/environmental-studies/environmental-conservation-ms/environmental-conservation-environmental-observation-informatics-ms/#requirementstext>) for the requirement information.

Assessments and Examinations All students must submit a leadership placement proposal and work plan, complete a professional leadership experience (independent practice) of at least eight weeks, followed by a substantial written report or deliverable for their host organization, and an exit seminar presentation.

Language Requirements No language requirements.

REQUIRED COURSES

Select a Named Option (p. 618) for courses required.

NAMED OPTIONS (SUB-MAJORS)

A named option is a formally documented sub-major within an academic major program. Named options appear on the transcript with degree conferral. Students pursuing the Master of Science in Environmental Conservation must select one of the following named options:

- Environmental Conservation: Environmental Conservation, M.S. (p. 619)
- Environmental Conservation: Environmental Observation and Informatics, M.S. (p. 622)

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming.

PRIOR COURSEWORK

Graduate Work from Other Institutions

No credits from another institution are allowed to count toward the program.

UW–Madison Undergraduate

See either the M.S. named option in Environmental Conservation (<https://next-guide.wisc.edu/graduate/environmental-studies/environmental-conservation-ms/environmental-conservation-environmental-conservation-ms/#policiestext>) or Environmental Observation and Informatics (<https://next-guide.wisc.edu/graduate/environmental-studies/environmental-conservation-ms/environmental-conservation-environmental-observation-informatics-ms/#policiestext>) for the policy information.

UW–Madison University Special

See either the M.S. named option in Environmental Conservation (<https://next-guide.wisc.edu/graduate/environmental-studies/environmental-conservation-ms/environmental-conservation-environmental-conservation-ms/#policiestext>) or Environmental Observation and Informatics (<https://next-guide.wisc.edu/graduate/environmental-studies/environmental-conservation-ms/environmental-conservation-environmental-observation-informatics-ms/#policiestext>) for the policy information.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above). This review could result in academic probation with a hold on future enrollment or in being suspended from the

Graduate School. The status of a student falls into one of the following three categories:

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

ADVISOR / COMMITTEE

Every student in the program will be required to have an advisor. Program staff will work with the student to identify an advisor during the fall semester. Once an advisor has been identified, the student is expected to maintain communication with their advisor to ensure they are making satisfactory progress toward their degree.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

See either the M.S. named option in Environmental Conservation (<https://next-guide.wisc.edu/graduate/environmental-studies/environmental-conservation-ms/environmental-conservation-environmental-conservation-ms/#policiestext>) or Environmental Observation and Informatics (<https://next-guide.wisc.edu/graduate/environmental-studies/environmental-conservation-ms/environmental-conservation-environmental-observation-informatics-ms/#policiestext>) for the policy information.

OTHER

Because of the immersive nature of our program, with condensed time on campus and remote experiences, Environmental Conservation students are only eligible for campus appointments that total 30% time or less, or hourly work. We encourage all students to apply for our Environmental Conservation program scholarship, and to seek additional sources of grants, scholarships, or loans. Students in the Environmental Conservation program are not permitted to seek dual degrees.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Apply the principles of conservation science and sustainability to real world environmental problems. (Environmental Conservation Named Option)
2. Explain the interconnections between environmental conservation and human well-being, and identify social, economic, and institutional

conditions that favor sustainability. (Environmental Conservation Named Option)

3. Conceptualize, strategize, design, and implement innovative environmental problem-solving techniques. (Environmental Conservation Named Option)

4. Demonstrate competence in core professional skills related to conservation practice, including: written, verbal, and visual communication; conflict resolution; interdisciplinary team building and problem definition; conservation planning; and program evaluation. (Environmental Conservation Named Option)

5. Recognize and apply principles of ethical and professional conduct in environmental conservation. (Environmental Conservation Named Option)

6. Apply the principles of conservation science and sustainability to real world environmental problems. (Environmental Observation and Informatics Named Option)

7. Explain the interconnections between environmental conservation and human well-being, and identify social, economic, and institutional conditions that favor sustainability. (Environmental Observation and Informatics Named Option)

8. Choose and apply the most appropriate and powerful platforms and technologies to address environmental challenges related to both human activities and natural dynamics. Interpret remotely-sensed earth observation data and apply those data to complex environmental problems. (Environmental Observation and Informatics Named Option)

9. Construct models of environmental phenomena to better understand natural processes and human actions, to predict and project future outcomes and scenarios, and to quantitatively evaluate those scenarios to enable more informed management and policy decisions. Conduct robust statistical analyses to examine quantitative model output and distributed environmental data, and interpret resulting patterns and trends. (Environmental Observation and Informatics Named Option)

10. Drive strategic thinking to design and manage the use of observation technologies to advance policy and program direction, and engage with organization leadership. (Environmental Observation and Informatics Named Option)

11. Conceptualize, strategize, design, and implement innovative environmental problem-solving techniques. (Environmental Observation and Informatics Named Option)

12. Demonstrate competence in core professional skills related to earth observation practice including written, verbal, and visual communication; conflict resolution; interdisciplinary team building and problem definition; mission planning; and program evaluation. (Environmental Observation and Informatics Named Option)

13. Recognize and apply principles of ethical and professional conduct in environmental observation and informatics. (Environmental Observation and Informatics Named Option)

PEOPLE

FACULTY EXECUTIVE PROGRAM COMMITTEES

ENVIRONMENTAL CONSERVATION PROGRAM COMMITTEE

Janet Silbernagel (Program Chairperson), Robert Beattie, David Drake, Thomas Eggert, Holly Gibbs, Evelyn Howell, Harvey Jacobs, Timothy Van Deelen, Alberto Vargas, Paul Zedler (Ex Officio)

ENVIRONMENTAL OBSERVATION & INFORMATICS PROGRAM COMMITTEE

Annemarie Schneider (Program Chairperson), Mike Koutnik (external consultant), Mutlu Ozdogan, Janet Silbernagel, Stephen Ventura, Paul Zedler (Ex Officio), Jun Zhu

ENVIRONMENTAL CONSERVATION: ENVIRONMENTAL CONSERVATION, M.S.

This is a named option in the Environmental Conservation M.S. (p. 616)

The Environmental Conservation named option is a 15-month, 32-credit blended learning curriculum designed to train conservation leaders in practical interdisciplinary skills. Built on the legacy of pioneering environmental leaders such as John Muir, Aldo Leopold, and Gaylord Nelson, alongside current leaders in the field of conservation, the program helps early-career working professionals advance their leadership and environmental management expertise through campus learning and remote experiences.

With curricula in conservation planning, land use policy, and in professional skills such as applied GIS, conservation fundraising, protected area management, program evaluation, and strategic communications, students are better prepared to tackle complex challenges in a changing world. Students also engage directly with a range of conservation organizations and practitioners, helping to solve some of the most urgent challenges in biodiversity conservation and environmental protection.

ADMISSIONS

Although applications for the professional master's with a named option in Environmental Conservation (EC) will be accepted on a rolling basis, applications received by December 1 each year will be given preference for admissions purposes and tuition assistance. Applications are submitted online (<https://apply.grad.wisc.edu>) through the UW-Madison Graduate School. Applicants will need to create a username and password to access the application system. For current or former UW students, this will be a new account that does not use your NetID. When applying for our MS program select the summer term for the calendar year you are applying for, and then choose Environmental Conservation in the drop-down tab. Prospective students who apply by December 1 will be informed of their admissions status by late January.

Ideal candidates for our program will have approximately two to five years of professional work and/or field experience, preferably in the conservation sector, though candidates with diverse professional and academic backgrounds are encouraged to apply. Applicants must have received a bachelor's degree from an accredited four-year institution with an undergraduate GPA of 3.0 or higher. Applicants with GPAs below 3.0 may be considered for admission under special circumstances. No additional prerequisite classes are required for the EC named option.

Complete applications will include all items below. For applicants who have a GPA below 3.0, the GRE is required. For those who have GPAs at 3.0 or above, GRE scores are not required for admission to the EC named option. Admissions decisions will be based on the entirety of each applicant's credentials.

1. Professional credentials/resume
2. Reasons for graduate study/statement of interest in this program or field
3. Two letters of professional recommendation; one letter from a current or former employer and one letter from a former university advisor are preferred. Although the online UW-Madison application gives you the option of adding three references, only two references are required for this program.
4. One copy of undergraduate transcripts submitted electronically in the application
5. Supplemental application (found in UW-Madison online application)
6. GRE scores (dependent on undergraduate GPA)

For foreign students, TOEFL or IELTS scores are also needed. The minimum TOEFL score required is 92 for the internet-based test (iBT) and 580 for the paper-based test (PBT). The minimum IELTS score required is 7.0. Applicants with language scores below these requirements may be considered for program admission under special circumstances. The UW-Madison Graduate School also requires proof of sufficient tuition funds for foreign applicants accepted into the program.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Because of the immersive nature of our programs, with condensed time on campus and remote experiences, Environmental Conservation students are not eligible for any campus appointments such as teaching assistantships, project assistantships, research assistantships, or fellowships. This applies to both the Environmental Conservation and the Environmental Observation & Informatics named options. We

encourage all students to apply for our Environmental Conservation tuition assistance program, and to seek additional sources of grants, scholarships, or loans. Students in the Environmental Conservation program's named options are not permitted to seek double, joint, or dual degrees.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
No	No	No	Yes	Yes

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum 32 credits
Credit Requirement

Minimum 16 credits
Residence Credit Requirement

Minimum Graduate Coursework Requirement Half of degree coursework (16 credits out of 32 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires a cumulative GPA of 3.0 in all coursework (300 and above) taken as a graduate student unless program-specific conditions require higher grades for probationary status. Grades of Incomplete (I) are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations All students must submit a leadership placement proposal and work plan, complete a professional leadership experience (independent practice) of at least eight weeks, followed by a substantial written report or deliverable for their host organization, and an exit seminar presentation.

Language Requirements No language requirements.

REQUIRED COURSES

Code	Title	Credits
ENVIR ST/ URB R PL 843	Land Use Policy and Planning	3
ENVIR ST 951	Conservation of Biodiversity	3
ENVIR ST 972	Conservation Planning	4
ENVIR ST 974	Environmental Conservation Cohort Seminar	1
ENVIR ST 975	Environmental Conservation Leadership Seminar	1
ENVIR ST 976	The Practice of Conservation Biology and Sustainable Development	1
ENVIR ST 978	Environmental Conservation Tools Modules	1
ENVIR ST 979	Environmental Conservation Professional Practice	3
ENVIR ST 999	Advanced Independent Study	1-3

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

NAMED OPTION-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming.

PRIOR COURSEWORK

Graduate Work from Other Institutions

No credits from another institution are allowed to count toward the program.

UW–Madison Undergraduate

With program approval, courses ZOOLOGY/BOTANY/ENVIR ST/F&W ECOL 651 Conservation Biology and URB R PL/ECON/ENVIR ST/POLI SCI 449

Government and Natural Resources taken as a UW–Madison undergraduate student may count toward the EC program curriculum in place of the ENVIR ST 951 Conservation of Biodiversity and URB R PL/ENVIR ST 843 Land Use Policy and Planning curriculum requirements, respectively. Those two courses taken as an undergraduate student cannot count toward the graduate residence or graduate coursework requirements, but they can count toward the graduate degree requirement if completed within five years of matriculating in the program.

UW–Madison University Special

With program approval and payment of the difference in tuition (between special student and graduate student), courses ZOOLOGY/BOTANY/ENVIR ST/F&W ECOL 651 Conservation Biology and URB R PL/ECON/ENVIR ST/POLI SCI 449 Government and Natural Resources taken as a UW–Madison special student may count toward the EC program curriculum in place of the ENVIR ST 951 Conservation of Biodiversity and URB R PL/ENVIR ST 843 Land Use Policy and Planning curriculum requirements, respectively. If URB R PL/ENVIR ST 843 Land Use Policy and Planning has been taken already as a UW–Madison special student, the URB R PL/ENVIR ST 843 curriculum requirement would be satisfied. Those two courses taken as a special student can count toward the graduate residence and graduate degree requirements if completed within five years of matriculating in the program, but they cannot count toward the graduate coursework requirement since they are not 700 level or above.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above). This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School. The status of a student falls into one of the following three categories:

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

ADVISOR / COMMITTEE

Every student in the program will be required to have an advisor. Program staff will work with the student to identify an advisor during the fall semester. Once an advisor has been identified, the student is expected to maintain communication with their advisor to ensure they are making satisfactory progress toward their degree.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

If a student has been absent for a semester or more, they must file a new Graduate School application for admission and submit it with a new application fee. UW–Madison master's degree students who have been absent for five or more consecutive years lose all credits they had earned before their absence. The program may count the coursework students completed prior to their absence toward meeting EC named option requirements, but the Graduate School will not count that coursework toward their graduate residence, graduate degree, or graduate coursework requirements.

OTHER

Because of the immersive nature of our program, with condensed time on campus and remote experiences, Environmental Conservation students are only eligible for campus appointments that total 30% time or less, or hourly work. We encourage all students to apply for our Environmental Conservation program scholarship, and to seek additional sources of grants, scholarships, or loans. Students in the Environmental Conservation program are not permitted to seek dual degrees.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PEOPLE

FACULTY EXECUTIVE PROGRAM COMMITTEES

ENVIRONMENTAL CONSERVATION PROGRAM COMMITTEE

Janet Silbernagel (Program Chairperson), Robert Beattie, David Drake, Thomas Eggert, Holly Gibbs, Evelyn Howell, Harvey Jacobs, Timothy Van Deelen, Alberto Vargas, Paul Zedler (Ex Officio)

ENVIRONMENTAL OBSERVATION & INFORMATICS PROGRAM COMMITTEE

Annemarie Schneider (Program Chairperson), Mike Koutnik (external consultant), Mutlu Ozdogan, Janet Silbernagel, Stephen Ventura, Paul Zedler (Ex Officio), Jun Zhu

ENVIRONMENTAL CONSERVATION: ENVIRONMENTAL OBSERVATION AND INFORMATICS, M.S.

This is a named option in the Environmental Conservation M.S. (p. 616)

The Environmental Observation and Informatics (EOI) named option integrates cross-cutting Earth observation, technologies, and big data analytics in one unique, 15-month, 32-credit program that combines hands-on, in-person training with distance learning. Our goal is to transform students' technical expertise into integrative synthesis and

leadership in environmental observation and interpretation to advance organizational response to environmental change at local, regional, and global scales. At UW-Madison, we push the limits of remote sensing and geospatial analysis to encompass the skills that are increasingly in demand by industry, non-governmental organizations, government agencies, and academia.

The EOI named option is designed for early- to mid-career professionals worldwide who wish to advance to positions of project or program manager, senior analyst, or similar rank. Individuals from diverse professional or educational backgrounds are encouraged to apply. EOI has been built to help individuals develop the expertise that the market demands, focusing specifically on three pillars:

1. Remote sensing and integrated technology: Learn to select and apply the most appropriate and powerful platforms and technologies - including LiDAR, unmanned aerial vehicle (UAV) systems, cloud and social media, and crowd-sourced data - to address today's most pressing environmental challenges.
2. Modeling and analysis: Construct scenarios of environmental phenomena to better understand natural processes and human actions, to predict and project future outcomes, and to conduct robust statistical analyses with distributed data to identify trends and inform management and policy decisions.
3. Innovative leadership: Drive strategic thinking to design and manage the use of observation technologies to advance policy, program direction, and executive decisions.

ADMISSIONS

The priority deadline for submitting an application to the Environmental Observation & Informatics (EOI) named option and for tuition assistance is December 1. However, prospective students who apply after the December 1 priority deadline should notify the EOI program coordinator. International applicants should contact the EOI program coordinator as soon as possible to ensure all paperwork and documents are included in the application. Applications are submitted online (<https://apply.grad.wisc.edu>) through the UW-Madison Graduate School. Applicants will need to create a username and password to access the application system. For current or former UW students, this will be a new account that does not use your NetID. When applying for our MS program select the summer term for the calendar year you are applying for, and then choose Environmental Observation and Informatics in the drop-down tab. Prospective students who apply by December 1 will be informed of their admissions status by late January.

Individuals with diverse professional and academic backgrounds are encouraged to apply. Preferred applicants are individuals with two to five years of professional work and/or field experience in GIS, geospatial technologies, and remote sensing. Because introductory GIS is not taught in this program, applicants should show some experience in using GIS demonstrated through coursework, professional experience, a portfolio (in the supplemental application), or a GIS certificate/degree. If an applicant does not have this experience, they should state this in their letter of interest and explain how, if accepted, introductory skills will be developed before the start of the program.

Applicants must have received a bachelor's degree from an accredited four-year institution with an undergraduate GPA of 3.0 or higher. Applicants with GPAs below 3.0 may be considered for admission under special circumstances.

Complete applications will include all items below. GRE scores are required for the EOI named option. Admissions decisions will be based on the entirety of each applicant's credentials.

1. Professional credentials/resume
2. Reasons for graduate study/statement of interest in this program or field
3. Two letters of professional recommendation; one letter from a current or former employer and one letter from a former university advisor are preferred. Although the online UW-Madison application gives you the option of adding three references, only two references are required for this program.
4. One copy of undergraduate transcripts submitted electronically in the application
5. Supplemental application (found in UW-Madison online application)

Applicants will submit a portfolio that showcases their quantitative and GIS experience. The portfolio should consist of documents that will help assess each applicant's proficiency and readiness for the program. Examples of these documents can include; maps developed in a GIS software or through remote sensing image analysis, copies of certificates, awards, and completed trainings, figures from analysis and reports, or selected slides from professional presentations.

6. GRE scores

For foreign students, TOEFL or IELTS scores are also needed. The minimum TOEFL score required is 92 for the internet-based test (iBT) and 580 for the paper-based test (PBT). The minimum IELTS score required is 7.0. Applicants with language scores below these requirements may be considered for program admission under special circumstances. The UW-Madison Graduate School also requires proof of sufficient tuition funds for foreign applicants accepted into the program.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Because of the immersive nature of our programs, with condensed time on campus and remote experiences, Environmental Conservation students are not eligible for any campus appointments such as teaching assistantships, project assistantships, research assistantships, or fellowships. This applies to both the Environmental Conservation and the Environmental Observation & Informatics named options. We encourage all students to apply for our Environmental Conservation tuition assistance program, and to seek additional sources of grants, scholarships, or loans. Students in the Environmental Conservation

program's named options are not permitted to seek double, joint, or dual degrees.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
No	No	No	Yes	Yes

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 32 credits

Minimum Residence Credit Requirement 19 credits

Minimum Graduate Coursework Requirement Half of degree coursework (16 credits out of 32 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires a cumulative GPA of 3.0 in all coursework (300 and above) taken as a graduate student unless program-specific conditions require higher grades for probationary status. The EOI named option requires a minimum grade of B in each course to satisfy all curriculum requirements. Grades of Incomplete (I) are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations All students must submit a leadership placement proposal and work plan, complete a professional leadership experience (independent practice) of at least eight weeks, followed by a substantial written report or deliverable for their host organization, and an exit seminar presentation.

Language Requirements No language requirements.

REQUIRED COURSES

Code	Title	Credits
ENVIR ST/ F&W ECOL/G L E/ GEOG/GEOSCI/ LAND ARC 371	Introduction to Environmental Remote Sensing	3
ENVIR ST 506	Modeling and Analysis of Environmental Systems	3
ENVIR ST/CIV ENGR/ LAND ARC 556	Remote Sensing Digital Image Processing	3
STAT 679	Special Topics in Statistics	1-3
F&W ECOL 875	Special Topics	1-4
ENVIR ST 950	Environmental Monitoring Seminar	2
ENVIR ST 974	Environmental Conservation Cohort Seminar	1
ENVIR ST 978	Environmental Conservation Tools Modules	1
ENVIR ST 999	Advanced Independent Study	1-3

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

NAMED OPTION-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming.

PRIOR COURSEWORK

Graduate Work from Other Institutions

No credits from another institution are allowed to count toward the program.

UW–Madison Undergraduate

With program approval, up to six credits of selected coursework taken as a UW–Madison undergraduate student may count toward the EOI program curriculum. Those credits taken as an undergraduate student cannot count toward the graduate residence or graduate coursework requirements, but they can count toward the graduate degree requirement if the courses were at least 300 level and completed within three years of matriculating in the program.

UW–Madison University Special

With program approval and payment of the difference in tuition (between special student and graduate student), up to six credits of selected coursework taken as a UW–Madison special student may count toward the EOI program curriculum. Those credits taken as a special student can count toward the graduate residence and graduate degree requirements if the courses were at least 300 level and completed within three years of matriculating in the program, and they can also count toward the graduate coursework requirement if the courses were 700 level or above.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above). This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School. The status of a student falls into one of the following three categories:

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

ADVISOR / COMMITTEE

Every student in the program will be required to have an advisor. Program staff will work with the student to identify an advisor during the fall semester. Once an advisor has been identified, the student is expected to maintain communication with their advisor to ensure they are making satisfactory progress toward their degree.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

If a student has been absent for a semester or more, they must file a new Graduate School application for admission and submit it with a new application fee. UW–Madison master's degree students who have been absent for five or more consecutive years lose all credits they had earned before their absence. The Graduate School will not count that coursework toward their graduate residence, graduate degree, or graduate coursework requirements. Students who have been absent for three or more consecutive years cannot count

credits they had earned before their absence toward EOI named option requirements.

OTHER

Because of the immersive nature of our program, with condensed time on campus and remote experiences, Environmental Conservation students are only eligible for campus appointments that total 30% time or less, or hourly work. We encourage all students to apply for our Environmental Conservation program scholarship, and to seek additional sources of grants, scholarships, or loans. Students in the Environmental Conservation program are not permitted to seek dual degrees.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PEOPLE

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TRANSPORTATION MANAGEMENT AND POLICY, GRADUATE/ PROFESSIONAL CERTIFICATE

The certificate in Transportation Management and Policy (TMP) was created to satisfy the demand for transportation professionals who understand multiple dimensions of transportation management and planning, enabling them to make choices leading to more environmentally and socially sustainable transportation systems now and in the future. Students focus not only on making transportation sustainable itself, but also on the role transportation plays in supporting and impacting society, the economy, and the environment. TMP certificate participants gain a holistic understanding of the complexities and synergies that influence transportation including climate, energy, communities, land use, resource management, economic development, and social justice.

The certificate addresses multi-modal transportation forms including highways, mass transit, air, water, and rail. By integrating study of the environment, engineering, economics, spatial analysis, and decision-

making with the study of political, legal, environmental, and social factors that shape transportation management, the certificate prepares students for professional work with public sector transportation agencies, consulting firms, and other organizations concerned with transportation management and policy.

ADMISSIONS

TMP welcomes applications from students in any graduate degree program at UW–Madison. The certificate is geared particularly toward those with academic backgrounds in business, economics, engineering, environmental studies, land management, public affairs, and/or urban planning. By entering TMP early in their graduate studies and planning carefully, students often can select courses that satisfy both their degree program and TMP requirements. Students entering the program are expected to have completed at least one college-level course in statistics. Students may be admitted with a deficiency in statistics, but will be expected to complete at least one statistics course in addition to other requirements.

REQUIREMENTS

Each TMP student must complete at least 17 credits including courses in transportation systems engineering, policy, the environment, and economics; a colloquium as well as a practicum in transportation management and policy; and an internship. TMP is not available as a stand-alone graduate degree. Master's and doctoral students who complete the requirements receive a certificate in TMP to supplement their graduate degree, or doctoral students can instead count the program as a distributed minor. Doctoral students should not claim TMP as both a certificate and a distributed minor (note: "Distributed" will still appear on the transcript). They should choose one or the other.

WATER RESOURCES MANAGEMENT, DOCTORAL MINOR

Any student enrolled in a University of Wisconsin-Madison doctoral program can pursue a doctoral minor in Water Resources Management. Meeting the increasing human demand for water while ensuring its future availability and quality is a significant societal challenge. The Water Resources Management (WRM) program prepares students to face the complexities of managing this critical natural resource. Students complete coursework that integrates the biological and physical sciences (which identify and measure problems) with engineering (which provides technological alternatives), law, and the social sciences (which assess needs and potential for institutional response). Each WRM student gains breadth in relevant planning and management areas while developing depth in an area specialty. WRM students participate in a summer group practicum workshop with a water resources management focus.

ADMISSIONS

Doctoral students who wish to pursue an Option A external minor in Water Resources Management should consult the chair of the Water Resources Management graduate program.

REQUIREMENTS

Courses are chosen in conjunction with the chair, who serves as the minor advisor, and the student's departmental advisor. A doctoral student may earn a doctoral minor in Water Resources Management by completing 11-12 credits that include the following courses: ENVIR ST/CIV ENGR/URB R PL 718, ENVIR ST/CIV ENGR/URB R PL 719, and two additional courses (300-level and higher) in one or more of the WRM curriculum breadth categories. Breadth courses should complement the doctoral major and academic background as well as address any gaps in their training within the WRM curriculum breadth categories. Students are expected to achieve a B or better in all courses used for the minor. Minor and major credits/courses cannot overlap or double-count.

WATER RESOURCES MANAGEMENT, M.S.

The Water Resources Management (WRM) program is an interdisciplinary graduate program leading to a master of science (M.S.) degree in water resources management. The program addresses the complex, interdisciplinary aspects of managing water resources by helping students integrate the biological and physical sciences (which identify and assess problems) with engineering (which defines technological alternatives) as well as law and the social sciences (which assess needs and potential for institutional response). Through the WRM program, a student gains breadth in relevant planning and management areas while developing depth in an area specialty.

The water resources management degree is designed to prepare students for employment as water resources management professionals. Rather than conduct individual research projects, WRM students participate in a summer group practicum workshop with a water resources management focus. Students who wish to add individual research credentials to their records frequently arrange to complete a second, simultaneous master's program in one of the university's traditional departments. Those interested primarily in individual research may wish to consider the Nelson Institute's Environment and Resources program as an alternative. The WRM program does not offer a doctoral degree.

Any person who attended an accredited institution and earned an undergraduate degree there in the biological sciences, earth sciences, economics, education, engineering, history, journalism, landscape architecture, law, mathematics, physical science, political science, urban and regional planning, or other relevant field may apply for admission to the WRM program.

Two tracks are available. All applicants should apply for the regular 45-credit track, which provides depth in an area specialty in addition to breadth in resource management and planning. The alternate track (30 to 44 credits) is for those who have at least three years of pertinent professional experience or for those advanced students who already have a related master's degree prior to entering the program. Either such candidate may appeal for the alternate track based on their background. The alternate track, also known as the reduced-credit track, can be pursued with the consultation of one's faculty advisory committee once that candidate is enrolled in the program. The candidate's advisory committee and the program chairperson make the final determination as to whether or not the alternate track is appropriate. No thesis is required for either track, but every WRM student must complete the 2-credit spring

planning seminar and the associated 4-credit summer group practicum workshop.

ADMISSIONS

DEADLINES

Application materials for Water Resources Management must be received by January 15 for admission to the following summer session or fall semester and by October 15 for admission to the following spring semester.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

In most cases Water Resources Management is unable to guarantee any funding to students. However, many of our students obtain funding through other departments on campus, and we recommend that students contact faculty or departments directly if they have teaching skills in specific areas. Individual faculty members occasionally have their own sources of support for project assistants, though we strongly urge students not to depend on these as guaranteed sources of funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	Yes

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement	M.S.: 45 credits M.S.: reduced-credit track: 30–44 credits
Minimum Residence Credit Requirement	16 credits
Minimum Graduate Coursework Requirement	Half of degree coursework must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (https://registrar.wisc.edu/course-guide/).
Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	Grades of BC or C are not typically accepted toward program requirements unless the grade is allowed by the student's faculty advisory committee and the program chair. Grades of BC and C may not be used in the area specialty category. A maximum of 3 credits graded S may be counted toward program requirements if approved by the student's faculty advisory committee and the program chair. Courses that are audited or graded pass/fail or credit/no credit will not count toward program requirements.
Assessments and Examinations	All students must hold an evaluation and guidance conference with their faculty advisory committee, preferably no later than their third semester in the program.
Language Requirements	No language requirements.

REQUIRED COURSES

Code	Title	Credits
Breadth Requirements		
Category A:	Natural Science & Technology ¹	9
Category B:	Water Resources Institutions & Public Decision-Making Processes ²	9
Category C:	Analytical & Design Tools in Water Resources ³	6
Area of Specialty ⁴		15

Summer Group Practicum & Workshop

ENVR ST/CIV ENGR/ URB R PL 718	Water Resources Management Practicum Planning Seminar II	2
ENVR ST/CIV ENGR/ URB R PL 719	Water Resources Management Summer Practicum	4
Total Credits		45

- Students choose any biological sciences and/or physical sciences courses in the 300–999 range.
- Students choose any social sciences and/or arts & humanities courses in the 300–999 range.
- Students choose any measurement/analysis/tools/methods courses in the 300–999 range.
- Students choose courses, in the 300–999 range, in a cohesive area of study pertaining to their intended career path.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<http://nelson.wisc.edu/graduate/water-resources-management/requirements-and-forms.php>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With faculty advisory committee and program chair approval, students are allowed to count graduate coursework from other institutions. The number of such credits is determined on a case-by-case basis. Coursework completed five or more years prior to admission to the program is not allowed to satisfy graduate degree or graduate coursework requirements.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the program.

UW–Madison University Special

With faculty advisory committee and program chair approval, students are allowed to count up to 15 credits of coursework taken as a UW–Madison Special student. Such credits from courses numbered 300 and higher can count toward graduate residency and graduate degree requirements. Credits from graduate-level courses (courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle>)) can count toward the graduate coursework requirement. Coursework completed five or more years prior to admission to the program is not allowed

to satisfy graduate residency, graduate degree, or graduate coursework requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

ADVISOR / COMMITTEE

All students must assemble a three-member faculty advisory committee that represents a minimum of two departments, preferably no later than their second semester in the program. To meet the interdisciplinary requirement the committee must include members tenured in one of the natural sciences divisions (Biological Sciences, Physical Sciences) and one of the social sciences divisions (Social Studies, Arts & Humanities).

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

n/a

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Expand their knowledge of the physical, chemical, biological, and social sciences and learn how to apply this knowledge to the management of water resources.
2. Understand water resource decision-making at governance levels from local to national.

3. Use a wide range of analytical tools to sustainably manage water resources.

4. Participate in as well as lead interdisciplinary teams.

5. Orally and in writing communicate to stakeholders the findings and recommendations of interdisciplinary projects.

6. Have an understanding of professional and ethical responsibility.

PEOPLE

FACULTY EXECUTIVE PROGRAM COMMITTEE

Anita Thompson (Program Chairperson), Jean Bahr, Paul Block, Michael Cardiff, Kenneth Genskow, James Hurley, Steven Loheide, Sharon Long, Kenneth Potter, Stephen Ventura, Paul Zedler (Ex Officio)

GENDER AND WOMEN'S STUDIES

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Gender and Women's Studies, Doctoral Minor (p. 629)
- Gender and Women's Studies, Graduate/Professional Certificate (p. 629)
- Gender and Women's Studies, M.A. (p. 630)

PEOPLE

FACULTY

Professors: Jill Casid (<https://gws.wisc.edu/staff/casid-jill-h>), Finn Enke (<https://gws.wisc.edu/staff/enke-finn>), Susan Friedman (<https://gws.wisc.edu/staff/friedman-susan-stanford>), Christine Garlough (<https://gws.wisc.edu/staff/garlough-christine>), (https://gws.wisc.edu/staff/hyde-janet-shibley) Janet Hyde (<https://gws.wisc.edu/staff/hyde-janet-shibley>), (https://gws.wisc.edu/staff/hyde-janet-shibley) Maria Lepowsky (<https://gws.wisc.edu/staff/lepowsky-maria>), Myra Marx Ferree (<https://gws.wisc.edu/staff/marx-ferree-myra>), Aili Mari Tripp (<https://gws.wisc.edu/staff/tripp-aili-mari>)

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LECTURERS AND TEACHING ASSISTANTS

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staff/hyde-janet-shibley) Janet Hyde (<https://gws.wisc.edu/staff/hyde-janet-shibley>), (<https://gws.wisc.edu/staff/hyde-janet-shibley>) Maria Lepowsky (<https://gws.wisc.edu/staff/lepowsky-maria>), Myra Marx Ferree (<https://gws.wisc.edu/staff/marx-ferree-myra>), Aili Mari Tripp (<https://gws.wisc.edu/staff/tripp-aili-mari>)

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GENDER AND WOMEN'S STUDIES, DOCTORAL MINOR

Any student enrolled in a UW–Madison doctoral program can pursue a doctoral minor in Gender and Women's Studies. The doctoral minor offers substantial and systematic training in the field of gender and women's studies. A doctoral minor in Gender and Women's Studies is an excellent way to gain training in feminist analysis and research methods as well as in substantive topical areas related to women and gender that can be applied to one's research field and to one's teaching. The training is greatly aided by the presence of excellent library holdings and the Office of the Gender & Women's Studies Librarian (<https://www.library.wisc.edu/gwslibrarian>).

The advisor for the Doctoral Minor in Gender and Women's Studies is the Director of Graduate Studies (<https://gws.wisc.edu/graduate/graduate-advising>).

Graduate students may not earn both an Option A minor and a graduate/professional certificate in Gender and Women's Studies (p. 629).

LECTURERS AND TEACHING ASSISTANTS

See the current semester's GWS Lecturers and Teaching Assistants directory (<https://gws.wisc.edu/people/lecturers-and-teaching-assistants-ta>).

REQUIREMENTS

Graduate students who wish to pursue a doctoral minor in Gender and Women's Studies should consult the director of graduate studies (<https://gws.wisc.edu/graduate/graduate-advising>) in the Department of Gender and Women's Studies. Courses are chosen in conjunction with the director of graduate studies, who serves as the minor advisor, and the student's departmental advisor.

A student may earn a doctoral minor in Gender and Women's Studies with 9 credits, if all 9 credits are in exclusively graduate-level GEN&WS (http://guide.wisc.edu/courses/gen_ws) courses numbered 700 and above. Alternatively, a student may earn the minor with 12 credits if these are courses numbered 300 and above and identified as designed for graduate work. One course must be GEN&WS 900 Approaches to Research in Women's Studies/Gender Studies. Students are expected to achieve a B or better in all courses used for the minor. Directed study courses do not count toward the minor. Students may not use colloquia or "brown bag" format courses toward requirements of the doctoral minor. Transferred credits are discouraged, but may be allowed with approval of the director of graduate studies. If a student is pursuing two doctoral minors, no more than one course shall overlap between the gender and women's studies minor and the other minor.

GENDER AND WOMEN'S STUDIES, GRADUATE/PROFESSIONAL CERTIFICATE

Aimed at students enrolled in master's and professional degree programs, the graduate/professional certificate in gender and women's studies is designed to provide students with gender expertise that they can apply in a variety of fields. The requirement of a foundational course (GEN&WS 880, GEN&WS 900 or GEN&WS/POLI SCI 933) provides grounding in the major concepts, theories, and research approaches related to the study of gender and women. This foundation provides the necessary theoretical tools to allow students to analyze gender and its relationship with other socially meaningful categories such as class, race, ethnicity, disability, and sexuality in a variety of contexts. Two additional courses allow students to deepen their empirical knowledge of women and/or gender in a specific area or areas. Choice in these courses allows students to tailor their study to areas related to future career or study ambitions.

REQUIREMENTS

The Gender and Women's Studies Certificate at the graduate level may be earned by students enrolled in a graduate program at the University of Wisconsin–Madison. Interested students should meet with the director of graduate studies (<https://gws.wisc.edu/graduate/graduate-advising>), who serves as the advisor, early in the process to plan a course of study and to declare their intention to earn the certificate.

PEOPLE

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COURSE REQUIREMENTS

- Enrollment in a graduate program at the University of Wisconsin–Madison.
- Three courses for a total of 9 credits of academic coursework in the Department of Gender and Women's

Studies at the 300 level or above and designated for graduate course attribute.

- One course must be either GEN&WS 880 , GEN&WS 900 , or GEN&WS/POLI SCI 933 .
- Students enrolled in courses at the 300–600 level should inform the instructor that they are taking the course for a graduate-level certificate and will complete additional readings/assignments consistent with expectations for a graduate student.
- 6 credits must be in residence at UW–Madison. A maximum of 6 credits may be transferred from other institutions.
- Directed study (GEN&WS 699 , GEN&WS 799 , GEN&WS 999) and colloquia courses may not be used toward the certificate.
- A 3.0 grade is the minimum for courses counting toward the certificate. All courses must be taken for a letter grade (no pass/fail courses).

Graduate students may not earn both a Option A minor (p. 629) and graduate/professional certificate in Gender and Women's Studies.

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GENDER AND WOMEN'S STUDIES, M.A.

The master's degree in gender and women's studies provides advanced feminist training in gender analysis for students with a variety of academic backgrounds and career plans. Incorporating local, cross-cultural and transnational emphases, the curriculum encourages students and faculty from the humanities, arts, social sciences and natural sciences to develop innovative ways of expanding knowledge about gender in global, local, and historical contexts. As the name gender and women's studies indicates, the M.A. retains the emphasis on women's lives and situations that have historically informed the field of women's studies, while also emphasizing the incisive import of gender as a category of analysis transforming knowledge about, for example, masculinity and men's lives, transgendered lives, as well as other complex topics. The degree engages the wide-ranging and multidisciplinary perspectives associated with gender studies and women's studies: queer studies, transgender studies, sexuality studies, race and ethnicity studies, disability studies, area and global studies, cultural studies, postcolonial and transnational studies.

The M.A. curriculum draws from the strengths of current course offerings in the program, as well as from methodologies and course offerings in other fields and departments. Among the domains of inquiry explored within the curriculum are: work, family and education; social movements, the state and civil society; bodies, genders, health and sexualities; individual, collective and communal identities; communications, technology and culture industries; politics of representation, media and cultural practices; migration, immigration, labor and political economy; militarism, international relations and governmental processes; intersectionality of systems of women's oppression; and arts, performance, and visual cultures. Some courses investigate these topics at the global level while others focus on the local, regional or national levels. The curriculum ensures an overarching transnational and cross-cultural framework. Courses use interdisciplinary methodologies and/or disciplinary approaches.

The degree program is designed to be a two-year full-time sequence; however, the program is also flexible enough to allow part-time students to pursue the M.A. All students are expected to maintain satisfactory progress in the graduate program in accordance with the regulations of the Graduate School and department policies.

Each student will complete 30 credits of coursework plus a thesis or a comprehensive exam project. Of the 30 credits, at least 15 must be in designated courses in the Department of Gender and Women's Studies. The remaining credits may also be departmental courses or may be chosen (entirely or in part) from graduate-level courses in other departments and programs in the university. All courses should be selected in consultation with the Director of Graduate Studies and/or the advisor, who must approve the selections.

THE DEPARTMENT

During a period of activism and debate that extended across the University of Wisconsin System, the women's studies program was established in 1975. It has grown steadily from a small program offering three courses a year to one of the largest and most well-respected programs in the United States. An undergraduate major serves more than 100 students each year; an undergraduate certificate serves approximately 150 students; a master's program admits approximately

six students each year; and a doctoral minor and certificate at the graduate level are also offered. In 2008, the program achieved department status and changed the name to the Department of Gender and Women's Studies.

Gender and women's studies is a well-established field of scholarship—a multidiscipline with its own body of theory, its array of accepted methods, and a history of scholarly contributions focused on the place of gender and women in society. Its research and teaching seek to expand the understanding and appreciation of gendered lives and experiences, both historically and in contemporary societies. In building this understanding, scholarship encompasses the arts and humanities and the social and natural sciences.

Scholarship and teaching in the Department of Gender and Women's Studies actively engages with multiple dimensions of the social, political and cultural dynamics of power. For example, gender and women's studies scholars explore how gender is intrinsic to global processes, how these processes intersect with local, regional and national identities, and how gender itself is shaped by race, ethnicity, dis/ability, nationality, sexuality, class, caste, age, and religion. Gender and women's studies scholars make contributions both by reevaluating past knowledge and by developing new interdisciplinary research methods and theories. Many academic disciplines, in fact, have undergone paradigm shifts that have been directly influenced by the theoretical and research approaches developed in the field of gender and women's studies.

Department faculty members and affiliates bring together a broad range of interests, research agendas, and teaching styles. The curriculum reflects this interdisciplinarity and offers students an opportunity to apply gender analysis in fields such as African American studies, African studies, American Indian studies, anthropology, the arts, Asian American studies, communications studies, comparative literature, Chicana/o and Latina/o studies, disability studies, education, folklore, health sciences, history, international studies, law, Latin American Studies, literature, media, philosophy, performance studies, political science, psychology, sociology, sexuality studies, South Asian studies, and visual culture. Faculty members have national and international reputations both as gender and women's studies scholars and as disciplinary scholars. In publications, leadership and awards, the department is among the most visible gender and women's studies departments in the country.

The department lists more than 100 courses, both crosslisted and specific to the department. Many courses are available to both advanced undergraduate and graduate students. Some enroll only graduate students. The department offers 20–25 courses each year, augmented by crosslisted courses from other departments. Selected courses are also offered in the summer.

CENTER FOR RESEARCH ON GENDER AND WOMEN

The Center for Research on Gender and Women was established in 1977 to promote scholarly interactions among women and gender studies researchers on campus, as well as linkages with women's studies centers and scholars nationally and internationally.

The research center engages in different kinds of activities to stimulate gender and women's studies research, including organizing lectures, colloquia, workshops and conferences, featuring campus, national and international speakers and creative artists. The center promotes research collaboration and externally funded research projects, provides proposal writing support, sponsors an honorary fellow program, facilitates

networking of women and gender studies scholars across campus, and fosters links with other gender and women's studies research centers around the country and the world.

These exchanges, as well as other events sponsored by the center, serve to draw together faculty, graduate students, and community members for mutual enrichment. Questions about the center should be sent to the director of the Center for Research on Gender and Women. (<https://crgw.gws.wisc.edu>)

ADMISSIONS

APPLICATION REQUIREMENTS

The following items are required as a part of the graduate application for the M.A. Program in the Department of Gender and Women's Studies:

1. One (1) copy of official transcripts or academic records from each institution attended. International academic records must be in the original language and accompanied by an official English translation. Documents must be issued by the school with the official seal/stamp and an official signature.
2. Three (3) letters of recommendation. We prefer that at least two of the letters come from academic sources. These letters may now be submitted on-line. Please see the Graduate School's web link for instructions.
3. Statement of reasons why you wish to pursue the M.A. Degree in Gender and Women's Studies (2–3 pages). In their personal statements, applicants should explicitly articulate their academic interests and goals, describe how an M.A. in Gender and Women's Studies complements those intellectual goals, and explain how the faculty and the program at UW–Madison is especially well matched with the applicant's interests.
4. Curriculum vitae or resumé.
5. Writing sample, such as a paper submitted for a course in an academic program. The admissions committee wishes to see an entire piece of written work, generally between 5 and 10 pages. We prefer an academic paper or policy memo (professional writing) because we are looking for presentation of argument as well as appropriate writing skills.
6. The Department of Gender and Women's Studies does NOT require GRE scores.

APPLICATION DUE DATE

Applications for fall admission is December 15.

ADDITIONAL INFORMATION

The Graduate School sets minimum requirements for admissions (<https://grad.wisc.edu/admissions/requirements>).

Applications to the Graduate School are made online at this website (<http://grad.wisc.edu/admissions>).

Items that should be sent to the Graduate School are listed here (<http://grad.wisc.edu/admissions/process>).

If you have questions, please send an email to Diane Walton, Student Services Coordinator, at dwalton@wisc.edu or the Director of Graduate Studies. (<https://gws.wisc.edu/graduate/graduate-advising>)

FELLOWSHIPS AND FINANCIAL SUPPORT

The Department of Gender and Women's Studies offers teaching assistant (TA) positions to incoming M.A. students. TA positions provide tuition remission, a stipend and health insurance. Our current departmental policy is to award new M.A. students at least two semesters of guaranteed funding through TA positions in our introductory courses. The department is sometimes able to offer additional TA positions after the two semesters of guaranteed support. Additional funding from the department or the College of Letters & Science, including TA positions, are based availability and on our curriculum schedule each academic year. The availability of TA positions may be different for international students and eligibility will be determined at the time of admission. There are a limited number of TA positions and applicants to the M.A. program should not count on a teaching assistant position in the department as a means of financial support for their entire two years of study. The department encourages M.A. students to apply for advertised teaching assistant and project assistant positions that may be available elsewhere on campus. All TA positions are contingent upon evaluation and performance. Students must be in good standing to be eligible for departmental funding.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

We offer TA positions to new M.A. students, including tuition remission, stipend and health insurance. We award new students at least 2 semesters of guaranteed funding and sometimes offer additional positions. Availability of positions may be different for international students; eligibility is determined at admission. There are a limited number of TA positions; so do not count on these as support for the entire 2 years of study. We encourage students to apply for positions elsewhere on campus.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement 21 of the 30 credits applied toward the graduate degree credit requirement must be completed in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Students complete either a thesis or exam, and can read more about them here: <https://gws.wisc.edu/ma-requirements/>

Language Requirements Contact the program for information on any language requirements.

REQUIRED COURSES

30 credits, 15 of which must be in courses in the Department of Gender and Women's Studies

GEN&WS 880 Proseminar: Graduate Study in Gender and Women's Studies

GEN&WS 900 Approaches to Research in Women's Studies/Gender Studies

A graduate level feminist theory course

A thesis project or exam

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

For well-prepared advanced students, the program may accept prior graduate coursework from other institutions toward the minimum graduate degree credit and minimum graduate coursework (50%) requirement. The minimum graduate residence credit requirement can be satisfied only with courses taken as a graduate student at UW-Madison.

UW-Madison Undergraduate

For well-prepared advanced students, the program may decide to accept up to 7 credits numbered 300 or above completed at UW-Madison toward fulfillment of minimum degree and minor credit requirements. This work would not be allowed to count toward the 50% graduate coursework minimum unless taken at the 700 level or above.

UW-Madison University Special

The program may decide to accept up to 15 University Special student credits as fulfillment of the minimum graduate residence, graduate degree, or minor credit requirements on occasion as an exception (on a case-by-case basis). UW-Madison coursework taken as a University Special student would not be allowed to count toward the 50% graduate coursework minimum unless taken at the 700 level or above.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could

result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

Students in the MA program are expected to carry 6 credits per semester. They may carry up to 12 although we do not encourage more than 9. Students who would like to carry fewer than 6 credits must apply in writing to the DGS for a waiver of this requirement and are not eligible to work as TAs.

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

To remain in good standing in the M.A. program, certain deadlines and expectation must be met in a timely fashion.

1. Students are expected to file their advisor form by the first week of classes of their second year of study.
2. Students are required to have a thesis or exam committee arranged by the first week of their fourth semester.
3. Students are required defend their thesis or complete their exams by the end of their fourth semester; formal requests for an extension of the time for the thesis or exam will be considered, but not guaranteed.
4. Filing the thesis or the written exam: The thesis or the written exam needs to be submitted to the DGS for filing by the designated thesis deposit deadline of the Graduate School.
5. Any incomplete grades must be resolved by the end of the following semester, unless a faculty extension is granted.
6. Students must be in good standing to be eligible for departmental funding.
7. Due Dates (Based on consecutive full time enrollment of all four semesters without summer sessions)

Formal requests for an extension of the time for the thesis or exam will be considered, but not guaranteed.

Failure to meet any of these requirements may result in a student being asked to leave the program.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Demonstrate the ability to read, understand, and critique the major concepts and theories related to feminism, women, and gender, and apply these critical perspectives across disciplines.
2. Understanding of historical and contemporary agency by people across a spectrum of gender and the ways this agency has shaped lives in various geographic settings.
3. Demonstrate the ability to analyze the intersections between gender and other socially meaningful categories, such as race, class, gender identity, ethnicity, disability, nation, religion, and sexuality, and to explain how gender functions as a social institution.
4. Demonstrate the ability to conduct interdisciplinary feminist analysis that (1) includes a critical literature review, (2) selects appropriate research methodologies, and (3) proposes an appropriate research design to collect, analyze, interpret, and present findings.
5. Develop and utilize strong cultural competencies (e.g., sensitivity to race/ethnicity/gender/disability/sexual orientation issues) to allow them to enter into various cultural, social, economic, civic, academic, and workplace settings.
6. Acknowledge and engage in ethical courses of action in research and collaborative practice.

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GENETICS

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Genetics, Doctoral Minor (p. 634)
- Genetics, M.S. (p. 635)
- Genetics, Ph.D. (p. 638)

PEOPLE

PROFESSORS

Doebley, John (chair); Engels, Bill; Gasch, Audrey; Ikeda, Aki; Laughon, Al; Masson, Patrick; Payseur, Bret; Pelegri, Francisco; Perna, Nicole; Prolla, Tom; Schwartz, David; Skop, Ahna; Wassarman, David; Yin, Jerry

ASSOCIATE PROFESSORS

Chang, Qiang; Hittinger, Chris; Pool, John

ASSISTANT PROFESSORS

Loewe, Laurence; Zhong, Xuehua

STUDENT SERVICES

Reck, Martha

GENETICS, DOCTORAL MINOR

The doctoral minor in genetics provides graduate students with solid course training in the area of genetics. The field of genetics seeks to understand how information is encoded in an organism's genome, how that information is read, replicated, and maintained by the cell, and how it evolves over time to impact organismal phenotypes. Courses offered through the Laboratory of Genetics span a wide variety of genetic topics, concepts, and experimental approaches. These include genetics related to human biology and disease, agriculture, conservation biology, and specialties such as neurogenetics, epigenetics, computational and statistical genetics, quantitative and population genetics, and basic, discovery-based genetic applications. Students who complete the doctoral minor in genetics will gain a strong foundation in genetic research and its application. In addition, through many of the courses offered in the Laboratory of Genetics, students gain experience in critical experimental thinking, oral and written presentation, and grant writing.

ADMISSIONS

Interested students should contact the director of the genetics Ph.D. program (Audrey Gasch, agasch@wisc.edu) to discuss their interest in the genetics doctoral minor and their course plans.

REQUIREMENTS

Ph.D. students must complete 9 credits of coursework offered through the Laboratory of Genetics (<http://guide.wisc.edu/courses/genetics>). Coursework must be graded courses numbered 300 or above and does not include audits or pass/fail courses. Students should consult with their home department to verify that they are meeting the minimum graduate coursework (50%) rule, as some courses offered in the low-numbered range may not meet the Graduate School requirements for graduate students.

PEOPLE

PROFESSORS

Doebley, John (chair); Engels, Bill; Gasch, Audrey; Ikeda, Aki; Laughon, Al; Masson, Patrick; Payseur, Bret; Pelegri, Francisco; Perna, Nicole; Prolla, Tom; Schwartz, David; Skop, Ahna; Wassarman, David; Yin, Jerry

ASSOCIATE PROFESSORS

Chang, Qiang; Hittinger, Chris; Pool, John

ASSISTANT PROFESSORS

Loewe, Laurence; Zhong, Xuehua

STUDENT SERVICES

Reck, Martha

GENETICS, M.S.

Graduate training in genetics emphasizes study and research leading to a Ph.D. degree in genetics. A master's degree in medical genetics with specialized training in genetic counseling are also available. For more information on a master's degree in genetic counseling, see Genetic Counseling (<http://www.med.wisc.edu/education/graduate-programs/genetic-counseling/main/26910>).

LABORATORY OF GENETICS

The Laboratory of Genetics is the oldest and one of the finest centers of genetics in the nation. It is highly regarded for its research contributions in the areas of disease genetics (<https://genetics.wisc.edu/disease-biology>), cell biology (<https://genetics.wisc.edu/cell-biology>), neurogenetics (<https://genetics.wisc.edu/neuro-and-behavioral-genetics>), developmental genetics (<https://genetics.wisc.edu/development>), gene expression (<https://genetics.wisc.edu/gene-expression>), genomics (<https://genetics.wisc.edu/genomics-and-proteomics>), evolutionary and population genetics (<https://genetics.wisc.edu/evolutionary-and-population-genetics>), and computational biology (<https://genetics.wisc.edu/computational-systems-and-synthetic-biology>). The laboratory consists of two departments: Genetics, in the College of Agricultural and Life Sciences; and Medical Genetics, in the School of

Medicine. Although administratively distinct, these two departments function as one at both the faculty and student levels.

ADMISSIONS

This M.S. is offered for work leading to the Ph.D. Students may not apply directly for the master's, and should instead see the admissions information for the Ph.D (p. 638).

A master's degree in medical genetics with specialized training in genetic counseling are also available. For more information on M.S. degrees in genetic counseling, see Genetic Counseling (<http://www.med.wisc.edu/education/graduate-programs/genetic-counseling/main/26910>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the

advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum 32 credits

Credit

Requirement

Minimum 32 credits

Residence

Credit

Requirement

Minimum Graduate Coursework Requirement Half of degree coursework must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Graduate GPA

Requirement

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Contact the program for information on required assessments and examinations.

Language Requirements No language requirement.

REQUIRED COURSES

Students may earn an M.S. in Genetics on the way to the Ph.D. in Genetics (p. 638) under certain circumstances. Contact the Genetics graduate coordinator for more information.

Code	Title	Credits
GENETICS 701	Advanced Genetics	3
GENETICS 702	Advanced Genetics II	3
GENETICS/ MD GENET 707	Genetics of Development ¹	3
GENETICS/ MD GENET 708	Methods and Logic in Genetic Analysis ¹	3
ONCOLOGY 715	Ethics in Science ²	1
Elective: Any graduate level Genetics course (including special topics) ³		
Four seminars		
Specialized elective coursework at the discretion of your thesis committee		

¹ GENETICS/MD GENET 707 Genetics of Development and GENETICS/MD GENET 708 Methods and Logic in Genetic Analysis are taken by the first and second years together; GENETICS/MD GENET 707 is offered one year and GENETICS/MD GENET 708 the next.

² Permission must be obtained to register from the cancer biology department.

³ Students wishing to take a course outside of Genetics course offerings may petition the Graduate Program Committee.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://genetics.wisc.edu/current-ph-d-students>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

For well-prepared advanced students, the program may accept prior graduate coursework from other institutions toward the minimum graduate degree credit and minimum graduate coursework (50%) requirement. The minimum graduate residence credit requirement can be satisfied only with courses taken as a graduate student at UW–Madison. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

For well-prepared advanced students, the program may decide to accept up to 7 credits numbered 300 or above completed at UW–Madison toward fulfillment of minimum degree and minor credit requirements. This work would not be allowed to count toward the 50% graduate coursework minimum unless taken at the 700 level or above. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison University Special

The program may decide to accept up to 15 University Special student credits as fulfillment of the minimum graduate residence, graduate degree, or minor credit requirements on occasion as an exception (on a case-by-case basis). UW–Madison coursework taken as a University Special student would not be allowed to count toward the 50% graduate coursework minimum unless taken at the 700 level or above. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree,

the Graduate School expects them to meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

n/a

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Demonstrate a broad understanding in the principles of genetics and heredity in all organisms. They will develop particular expertise in at least one of the broad subject areas of the doctoral program.
2. Demonstrate a broad understanding of major current and past theories, research findings and methodologies and techniques in genetics, with particular expertise in their area of concentration, both orally and in writing.
3. Develop critical thinking skills. They will retrieve and examine scientific literature, evaluate evidence for and against hypotheses, identify knowledge gaps, strengths and weaknesses in existing literature, synthesize knowledge, develop conclusions, and formulate plans for moving the current state of knowledge forward.
4. Demonstrate research expertise in genetics by presenting to their supervisory committee a research report based on their own experimental work or based on critical review of original peer-reviewed literature on a topic of current interest in genetics.
5. Retrieve and interpret professional peer-reviewed literature and use this information to evaluate theoretical frameworks, testable hypotheses, and predictions.
6. Demonstrate the ability to critically evaluate research based on design, feasibility, and internal controls, and to explain how such research addresses important unsolved problems in genetic or biomedical research.
7. Communicate effectively to diverse audiences in writing, through oral presentations, and during formal and informal discussions.
8. Master methods of communicating and interacting effectively with professional colleagues.
9. Articulate their research and its significance both formally and informally to diverse audiences.
10. Give and receive feedback on communication skills both orally and in writing.
11. Be provided with opportunities to engage in public outreach and education.
12. Effectively teach the principles of genetics and the methods used in contemporary genetic research.
13. Receive in-class educational training by serving as teaching assistants for at least one semester of an undergraduate genetics course.
14. Be provided with opportunities to mentor other students (for example, undergraduate students) in a laboratory research setting.
15. Opportunities to perform outreach activities in which they educate school-age students or individuals from other fields on the principles of modern genetics.
16. Be provided with diverse training that will prepare them for a range of flexible and sustainable careers in, for example, academia, industry, government, science policy, administration, commerce, journalism, law, education and community outreach.
17. Develop broadly applicable skills in critical thinking and problem solving.
18. Be provided with opportunities for teamwork, written and oral communication skills and collaborations.
19. Receive training in professional ethics and the responsible conduct of science.
20. Be trained to use scientific rigor when designing experiments, collecting and analyzing data, and interpreting and reporting results.
21. Discuss and formulate opinions on the many situations that working scientists encounter involving professional ethics and conflicts of interest.
22. Receive training in laws, regulation, permits and licenses, occupational health, safety standards and best practices, will demonstrate understanding of such and adhere to compliance.

PEOPLE

PROFESSORS

Doebley, John (chair); Engels, Bill; Gasch, Audrey; Ikeda, Aki; Laughon, Al; Masson, Patrick; Payseur, Bret; Pelegri, Francisco; Perna, Nicole; Prolla, Tom; Schwartz, David; Skop, Ahna; Wassarman, David; Yin, Jerry

ASSOCIATE PROFESSORS

Chang, Qiang; Hittinger, Chris; Pool, John

ASSISTANT PROFESSORS

Loewe, Laurence; Zhong, Xuehua

STUDENT SERVICES

Reck, Martha

GENETICS, PH.D.

Graduate training in genetics emphasizes study and research leading to a Ph.D. degree in genetics.

The goal of the genetics graduate training program is to train the next generation of professional geneticists. This includes selecting the most promising university graduates for admission to the program and training those students in the methods and logic of genetic analysis. Such analyses are increasingly important in contemporary biological and biomedical research. The curriculum includes:

1. coursework on the principles of genetics and on the methods of genetic and genomic analyses, and
2. original research in a specialized area, which culminates in the writing and defense of a doctoral thesis.

The genetics graduate program is supported by the oldest and one of the largest NIH-funded genetics training grants in the country.

The strength of genetics research at Wisconsin derives in large part from the Laboratory of Genetics, but state-of-the-art genetics research is conducted in many campus departments and centers. Training faculty of the genetics Ph.D. program includes over 80 trainers selected from 22 campus departments and schools based on the strength of their scholarly genetics research. A key feature of the trainers is that they conduct genetic research, using any number of tools, and can therefore provide students with a solid foundation of genetic knowledge and experiences. The genetics research pursued on campus provides an exceptional community.

Genetics Ph.D. students choose one of the training faculty as the graduate thesis advisor and mentor. Genetics graduate students spend time during the first semester of graduate school rotating in the laboratories of three or four faculty trainers, selected by the student. Following rotations, a graduate thesis advisor is chosen by mutual consent of both student and professor. Students are expected to acquire a broad and fundamental knowledge of genetics during their coursework, after which they conduct independent scholarly research based on individual interests and under the guidance and mentoring of the thesis advisor. Formal coursework requirements are modest, and independent study that includes original research is of paramount importance in the program. Students choose an individualized thesis advisory committee of five faculty members (including the thesis advisor) that approves

formal coursework and provides scientific and career development advice throughout a student's graduate career.

LABORATORY OF GENETICS

The Laboratory of Genetics is the oldest and one of the finest centers of genetics in the nation. It is highly regarded for its research contributions in the areas of disease genetics (<https://genetics.wisc.edu/disease-biology>), cell biology (<https://genetics.wisc.edu/cell-biology>), neurogenetics (<https://genetics.wisc.edu/neuro-and-behavioral-genetics>), developmental genetics (<https://genetics.wisc.edu/development>), gene expression (<https://genetics.wisc.edu/gene-expression>), genomics (<https://genetics.wisc.edu/genomics-and-proteomics>), evolutionary and population genetics (<https://genetics.wisc.edu/evolutionary-and-population-genetics>), and computational biology (<https://genetics.wisc.edu/computational-systems-and-synthetic-biology>). The laboratory consists of two departments: Genetics, in the College of Agricultural and Life Sciences; and Medical Genetics, in the School of Medicine. Although administratively distinct, these two departments function as one at both the faculty and student levels.

ADMISSIONS

Ph.D. students in genetics choose to attend Wisconsin because of their commitment to the discipline of genetics and because of Wisconsin's strength in that area. For admission to graduate study in genetics, the student should have earned a grade average of B or better and completed a B.S. or B.A. degree in a recognized college or university. There are no specific requirements in supporting fields, but students are encouraged to acquire adequate background in mathematics, physics, and biology. There is no formal language requirement for the Ph.D. in genetics. Undergraduate research experience is also strongly recommended in order to be competitive.

Admission to the genetics Ph.D. program is highly competitive. A committee of the Laboratory of Genetics reviews applications each fall, invites meritorious applicants for personal interviews each January and February, and accepts approximately 15 percent of total applications received. An application for admission consists of:

1. a resume,
2. a personal statement that discusses the reasons for pursuing a genetics Ph.D.,
3. an transcript of undergraduate college or university coursework,
4. three or more letters of recommendation,
5. a report, if appropriate, of scores received on either the TOEFL or IELTS exams of English language proficiency, and
6. any other information or documentation that would help the admissions committee evaluate an applicant's potential for success in graduate study.

The application deadline is **December 1**.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

The Genetics Training Program is supported by an NIH Training Grant. Domestic students receive 1–2 years of funding, typically their first year and second or third year. We encourage students to apply for fellowships. Other funding sources include professors research grants and university fellowships. Funding includes a stipend, health care benefits, and tuition costs. Students must be making satisfactory progress towards their degree.

Prospective students should see the program website (<https://genetics.wisc.edu/prospective-ph-d-students>) for funding information.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum 51 credits

Credit Requirement

Minimum 32 credits

Residence Credit Requirement

Minimum Graduate Coursework Requirement Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations At the end of their coursework, student's complete Preliminary A, a written examination. The purpose of the Preliminary A Examination is to evaluate the student's general knowledge in genetics, their competency in critically analyzing original genetic literature and their ability to formulate experimental solutions to genetic problems. Doctoral students are required to take a comprehensive preliminary/oral examination after they have cleared their record of all Incomplete and Progress grades (other than research and thesis). This Preliminary B Examination should be completed by December 15 of the student's 3rd year.

Deposit of the doctoral dissertation in the Graduate School is required.

Language Requirements No language requirement.

Doctoral Minor/Breadth Requirements All doctoral students are required to complete a minor.

REQUIRED COURSES

Code	Title	Credits
GENETICS 701	Advanced Genetics	3
GENETICS 702	Advanced Genetics II	3
GENETICS/ MD GENET 707	Genetics of Development ¹	3
GENETICS/ MD GENET 708	Methods and Logic in Genetic Analysis ¹	3
ONCOLOGY 715	Ethics in Science ²	1
Elective: Any graduate level Genetics course (including special topics) ³		
Four seminars		
Specialized elective coursework at the discretion of your thesis committee		

- ¹ GENETICS/MD GENET 707 Genetics of Development and GENETICS/MD GENET 708 Methods and Logic in Genetic Analysis are taken by the first and second years together; GENETICS/MD GENET 707 is offered one year and GENETICS/MD GENET 708 the next.
- ² Permission must be obtained to register from the cancer biology department.
- ³ Students wishing to take a course outside of Genetics course offerings may petition the Graduate Program Committee.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://genetics.wisc.edu/current-ph-d-students>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

For well-prepared advanced students, the program may accept prior graduate coursework from other institutions toward the minimum graduate degree credit and minimum graduate coursework (50%) requirement. The minimum graduate residence credit requirement can be satisfied only with courses taken as a graduate student at UW–Madison. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

For well-prepared advanced students, the program may decide to accept up to 7 credits numbered 300 or above completed at UW–Madison toward fulfillment of minimum degree and minor credit requirements. This work would not be allowed to count toward the 50% graduate coursework minimum unless taken at the 700 level or above. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison University Special

The program may decide to accept up to 15 University Special student credits as fulfillment of the minimum graduate residence, graduate degree, or minor credit requirements on occasion as an exception (on a case-by-case basis).

UW–Madison coursework taken as a University Special student would not be allowed to count toward the 50% graduate coursework minimum unless taken at the 700 level or above. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

When students have identified a major professor and joined their lab, that professor will assume the duties of their advisor. At that time students will form a Ph.D. Advisory Committee consisting of three to five faculty members (ultimately it must be five) three of whom must be Genetics trainers, including two members of the Laboratory of Genetics faculty, and one minor advisor, if needed. One member must also be from a different department (all 5 cannot be Genetics faculty members). The Ph.D. Advisory Committee should be established no later than the end of the second semester. Under normal circumstances, the committee membership will remain in effect for the entire tenure of the student's graduate career.

The Ph.D. Advisory Committee will advise the student with regard to major and minor requirements. It will also act as their Prelim B Examination Committee and as the Final Oral Ph.D. Examination Committee. After the advisor, this committee is the primary monitoring instrument to assure satisfactory progress toward degree. The Ph.D. Advisory Committee will meet with the student at least once per year. During these annual meetings anticipated timelines for progress of the thesis project will be discussed and concrete guidance will be given about completing the thesis. The student will complete an annual committee meeting form each year during the meeting. The annual meeting will address the assessment of the student's progress and outline any suggestions or recommendations, in addition to verifying the discussion of the student's Individualized Development Plan (<https://grad.wisc.edu/pd/idp>).

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

OTHER

n/a

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Demonstrate a broad understanding in the principles of genetics and heredity in all organisms. They will develop particular expertise in at least one of the broad subject areas of the doctoral program.
2. Demonstrate a broad understanding of major current and past theories, research findings and methodologies and techniques in genetics, with particular expertise in their area of concentration, both orally and in writing.
3. Develop critical thinking skills. They will retrieve and examine scientific literature, evaluate evidence for and against hypotheses, identify knowledge gaps, strengths and weaknesses in existing literature, synthesize knowledge, develop conclusions, and formulate plans for moving the current state of knowledge forward.
4. Develop and complete original research that advances a specific field of study within one of the broad areas subject areas in genetics.
5. Retrieve, evaluate and interpret professional peer-reviewed literature and use this information to develop theoretical frameworks, testable hypotheses, and predictions for their own research projects.
6. Design research projects that are feasible, based on well-designed and internally controlled experiments, and address important unsolved problems in genetic or biomedical research.
7. Conduct independent research, critically evaluate and interpret the resulting data, and, based on that analysis, design future experiments that advance the state of the field.
8. Write, edit, and assemble manuscripts resulting from their independent research and submit these for publication in peer-reviewed professional journals.
9. Communicate effectively to diverse audiences in writing, through oral presentations, and during formal and informal discussions.
10. Write clear and concise research articles for publication in professional journals.
11. Present at scientific conferences and in both formal and informal seminars.
12. Master methods of communicating and interacting effectively with professional colleagues, and will prepare successful applications for research grant support.
13. Articulate their research and its significance both formally and informally to diverse audiences.
14. Give and receive feedback on communication skills both orally and in writing.
15. Be provided with opportunities to engage in public outreach and education.
16. Effectively teach the principles of genetics and the methods used in contemporary genetic research.
17. Receive in-class educational training by serving as teaching assistants for at least one semester of an undergraduate genetics course.
18. Be provided with opportunities to mentor other students (for example, undergraduate students) in a laboratory research setting. Interested students will have opportunities to perform outreach activities in which they educate school-age students or individuals from other fields on the principles of modern genetics.
19. Be provided with diverse training that will prepare them for a range of flexible and sustainable careers in, for example, academia, industry, government, science policy, administration, commerce, journalism, law, education and community outreach.
20. Develop broadly applicable skills in critical thinking and problem solving.
21. Be provided with opportunities for teamwork, written and oral communication skills and collaborations.
22. Receive training in professional ethics and the responsible conduct of science.
23. Be trained to use scientific rigor when designing experiments, collecting and analyzing data, and interpreting and reporting results.
24. Discuss and formulate opinions on the many situations that working scientists encounter involving professional ethics and conflicts of interest.
25. Receive training in laws, regulation, permits and licenses, occupational health, safety standards and best practices, will demonstrate understanding of such and adhere to compliance.

PEOPLE

PROFESSORS

Doebley, John (chair); Engels, Bill; Gasch, Audrey; Ikeda, Aki; Laughon, Al; Masson, Patrick; Payseur, Bret; Pelegri, Francisco; Perna, Nicole; Prolla, Tom; Schwartz, David; Skop, Ahna; Wassarman, David; Yin, Jerry

ASSOCIATE PROFESSORS

Chang, Qiang; Hittinger, Chris; Pool, John

ASSISTANT PROFESSORS

Loewe, Laurence; Zhong, Xuehua

STUDENT SERVICES

Reck, Martha

GEOGRAPHY

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Cartography and Geographic Information Systems, Doctoral Minor (p. 642)
- Cartography and Geographic Information Systems, M.S. (p. 642)
- Geography, Doctoral Minor (p. 648)
- Geography, M.S. (p. 649)
- Geography, Ph.D. (p. 651)

PEOPLE

Faculty: Professors Naughton (chair), Cadwallader, Cronon, Kaiser, Mason, Naughton, Olds, Turner, Williams, Zhu; Associate Professors Marin-Spiotta Robertson, Woodward; Assistant Professors Baird, Gibbs, Huang, Moore, Roth, Young

CARTOGRAPHY AND GEOGRAPHIC INFORMATION SYSTEMS, DOCTORAL MINOR

Geographic information science (GIScience) addresses the fundamental issues surrounding the use of computer technology to help people work with geographic information. GIScience is a field devoted to the acquisition, representation, management, analysis, and visualization of geospatial data. It is relatively new discipline that incorporates geography, cartography, spatial analysis, computer science and other related fields geodesy, cognition, statistics, and mathematics. As an academic discipline, GIScience is concerned with both theoretical and applied issues relating to the creation, analysis, and visualization of spatiotemporal information. It is inherently interdisciplinary in both its methods and applications. Here at UW–Madison, we are committed to the integration of GIScience with substantive geographic questions.

ADMISSIONS

For more information, contact: Marguerite Roulet, Graduate Program Director (maroulet@wisc.edu).

REQUIREMENTS

All students pursuing a concentrated minor in Cart/GIS are required to connect with a faculty member with whom they can work to establish a reasonable course list to complete 9 credits in the department. That faculty member will, ultimately, be responsible for signing off on completion of the minor. Students interested in the geography minor are encouraged to explore the department's faculty pages (<http://www.geography.wisc.edu/faculty>) and contact one or more faculty with shared research interests.

PEOPLE

Faculty: Professors Naughton (chair), Cadwallader, Cronon, Kaiser, Mason, Naughton, Olds, Turner, Williams, Zhu; Associate Professors Marin-Spiotta Robertson, Woodward; Assistant Professors Baird, Gibbs, Huang, Moore, Roth, Young

CARTOGRAPHY AND GEOGRAPHIC INFORMATION SYSTEMS, M.S.

The Department of Geography offers a thesis-based master of science in cartography and geographic information systems. In addition, it offers two professional non-thesis options in the Cartography and Geographic Information Systems M.S. titled: GIS Development (p. 646) (online program) and Accelerated/ Non-Thesis (p. 644) (in-residence program).

Information about facilities, supporting faculty and staff, and program requirements for all graduate programs in the department can be found in the Geography (p. 642) listing in this catalog.

The M.S. in cartography and geographic information systems provides a broad foundation in the theory and application of mapping and geographic information sciences. Students who earn the M.S. degree are prepared to continue on for the Ph.D. in geography (thesis students), or for positions as GIS analysts in government agencies, planning organizations, environmental agencies, nongovernmental organizations, and private industry.

ADMISSIONS

The Graduate School sets minimum requirements for admissions (<https://grad.wisc.edu/admissions/requirements>). Academic program admission requirements are often more rigorous than those set by the Graduate School.

Please check the program's website (<https://geography.wisc.edu/graduate-application-process>) for details on how to apply. The application deadline is December 15. Note: there are no spring/summer admissions.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments A formal thesis is required.
and
Examinations

Language Requirements No language requirement.

REQUIRED COURSES

Most students complete the coursework for breadth requirements prior to entering the program. Students who begin the program lacking one or more of the breadth courses are expected to complete such coursework during the master's program. One course taken for breadth can also be used to fulfill degree requirements. Typically, these courses are not seminars. Students must complete the equivalent of one under graduate-level course in quantitative methods, two courses in mathematics, and two intermediate or advanced geography courses.

Code	Title	Credits
Required		
GEOG 765 & GEOG 766	Geographical Inquiry and Analysis: An Introduction and Geographical Inquiry and Analysis: Techniques	4
GEOG 370	Introduction to Cartography	4
GEOG/CIV ENGR/ ENVIR ST 377	An Introduction to Geographic Information Systems	4
GEOG 378	Introduction to Geocomputing	4
GEOG 970	Seminar in Geographic Information Science	1-3
Select two of the following:		6-8
GEOG 572	Graphic Design in Cartography	
GEOG 575	Interactive Cartography & Geovisualization	
GEOG 577	Environmental Modeling with GIS	
GEOG 578	GIS Applications	
GEOG 579	GIS and Spatial Analysis	

NAMED OPTIONS (SUB-MAJORS)

A named option is a formally documented sub-major within an academic major program. Named options appear on the transcript with degree conferral.

- Cartography and Geographic Information Systems: Accelerated/Non-Thesis, M.S. (p. 644)
- Cartography and Geographic Information Systems: GIS Development, M.S. (p. 646)

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://geography.wisc.edu/wp-content/uploads/2017/09/Geog-Grad-Handbook-Ver-17-18.0-Aug-2017.pdf>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 6 credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree or earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

With program approval, students are allowed to count no more than 6 credits of graduate coursework as defined above taken as a UW–Madison Special student. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The Department of Geography expects graduate students to progress through a sequence of benchmarks within prescribed time periods. These benchmarks constitute a reasonable rate of accomplishment for full-time students holding teaching or research appointments. The department recognizes that individual circumstances vary, and not all students progressing toward their academic goals will hit the benchmarks exactly. Thus a student's progress is considered unsatisfactory only after a period of time elapses following an unmet benchmark. A student not making satisfactory progress is placed on probation. For detailed information about these benchmarks and triggers for probationary status, please see the department's Criteria for Satisfactory Progress.

ADVISOR / COMMITTEE

Committee must have a minimum of three members, two of whom must be grad faculty (or former grad faculty up to one year after resignation/retirement) and two of whom must be affiliated with the geography department.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

For program-specific time constraints, please see Probation Policy above.

OTHER

We consider all applicants to the M.S. for multi-year guaranteed funding packages. This funding, however, is not plentiful and it is competitive. Decisions about funding are typically made by late February. Students in the GIS Development and Accelerated/

Non-Thesis named options are not permitted to accept graduate assistantships or other appointments that would result in a tuition waiver and cannot enroll in other graduate programs nor take courses outside the prescribed curriculum.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Articulates, critiques, or elaborates the theories, research methods, and approaches to inquiry or schools of practice in cartography and GIScience.
2. Identifies sources and assembles evidence pertaining to questions or challenges in cartography/GIScience.
3. Demonstrates understanding of cartography/GIScience in a historical, social, or global context.
4. Selects and/or utilizes the most appropriate methodologies and practices.
5. Evaluates or synthesizes information pertaining to questions or challenges in cartography/GIScience.
6. Communicates clearly in ways appropriate to cartography/GIScience.
7. Recognizes and applies principles of ethical and professional conduct.

PEOPLE

Faculty: Professors Naughton (chair), Cadwallader, Cronon, Kaiser, Mason, Naughton, Olds, Turner, Williams, Zhu; Associate Professors: Baird, Gibbs, Marin-Spiotta, Robertson, Roth, Woodward; Assistant Professors: Gao, Huang, Keefover-Ring, Loyd, Moore, Young

CARTOGRAPHY AND GEOGRAPHIC INFORMATION SYSTEMS: ACCELERATED/NON-THESIS, M.S.

This is a named option within the Cartography/GIS M.S. (p. 642).

This is an accelerated master's program provides a broad foundation in the theory and application of mapping and geographic information sciences. Graduates of this program will be well prepared for positions as GIS analysts in government agencies, planning organizations, environmental agencies, nongovernmental organizations, and private industry. Completion of this accelerated program requires 32 credits and does not include a thesis. Learn more. (<https://geography.wisc.edu/gis/accelerated-non-thesis-masters-in-cartography-gis>)

ADMISSIONS

The Graduate School sets minimum requirements for admissions (<https://grad.wisc.edu/admissions/requirements>). Academic program admission requirements are often more rigorous than those set by the Graduate School. Please check the program's website (<https://geography.wisc.edu/gis/accelerated-non-thesis-masters-in-cartography-gis-application-information>) for details on how to apply.

For first consideration apply by **April 1 for fall** and **August 1 for spring**.

Final deadlines for complete applications are **June 1 for fall** and **October 1 for spring**.

International student final deadlines for complete applications are **April 1 for fall** and **August 1 for spring**.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Students in the GIS Development and Accelerated/Non-Thesis named options are not permitted to accept graduate assistantships or other appointments that would result in a tuition waiver and cannot enroll in other graduate programs nor take courses outside the prescribed curriculum.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	Yes

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum 30 credits

Credit

Requirement

Minimum 16 credits

Residence

Credit

Requirement

Minimum Graduate Coursework Requirement Half of degree coursework (16 credits out of 32 total credits) must be completed in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade

Requirements

The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations No formal examination is required.

Language

Requirements

No language requirement.

Requirements

REQUIRED COURSES

Code	Title	Credits
Core Courses		
GEOG 370	Introduction to Cartography (Core course)	4
GEOG/CIV ENGR/ ENVIR ST 377	An Introduction to Geographic Information Systems (Core course)	4
GEOG 378	Introduction to Geocomputing (Core course)	4

GEOG 778	Practicum in GIS Development (Core course)	4
Electives		
Choose four of the following:		16
GEOG 560	Advanced Quantitative Methods (Elective)	
GEOG 572	Graphic Design in Cartography (Elective)	
GEOG 574	Geospatial Database Design and Development (Elective)	
GEOG 575	Interactive Cartography & Geovisualization (Elective)	
GEOG 576	Geospatial Web and Mobile Programming (Elective)	
GEOG 578	GIS Applications (Elective)	
GEOG 579	GIS and Spatial Analysis (Elective)	
Total Credits		32

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

NAMED OPTION-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://geography.wisc.edu/wp-content/uploads/2017/09/Geog-Grad-Handbook-Ver-17-18.0-Aug-2017.pdf>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 7 credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree or earned ten years is not allowed to satisfy requirements.

UW–Madison Undergraduate

With program approval, students are allowed to count no more than 7 credits of undergraduate graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree or earned ten years is not allowed to satisfy requirements.

UW–Madison University Special

With program approval, students are allowed to count no more than 15 credits of graduate coursework as defined above taken as a UW–Madison Special student. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The Department of Geography expects graduate students to progress through a sequence of benchmarks within prescribed time periods. These benchmarks constitute a reasonable rate of accomplishment for full-time students holding teaching or research appointments. The department recognizes that individual circumstances vary, and not all students progressing toward their academic goals will hit the benchmarks exactly. Thus a student's progress is considered unsatisfactory only after a period of time elapses following an unmet benchmark. A student not making satisfactory progress is placed on probation. For detailed information about these benchmarks and triggers for probationary status, please see the department's Criteria for Satisfactory Progress.

ADVISOR / COMMITTEE

All students are required to conduct a progress report each semester with the program director or manager. Failure to do so will result in a hold being placed on the student's registration.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

For program-specific time constraints, please see Probation Policy above.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PEOPLE

Associated Faculty: Lisa Naughton (Department Chair), A-Xing Zhu, Robert Roth, Qunying Huang, and Song Gao.

Staff: Ian Muehlenhaus (GIS Professional Programs Director), Brittney Markle (GIS Professional Programs Manager), and Joel Gruely (GIS Professional Programs Administrative Assistant)

CARTOGRAPHY AND GEOGRAPHIC INFORMATION SYSTEMS: GIS DEVELOPMENT, M.S.

This is a named option within the Cartography/GIS M.S. (p. 642).

This online master's program provides a broad foundation in the theory and application of mapping and geographic information sciences. Graduates of this program will be well prepared for positions as GIS analysts in government agencies, planning organizations, environmental agencies, nongovernmental organizations, and private industry. Completion of this program requires 32 credits and does not include a thesis. Learn more. (<https://geography.wisc.edu/gis/onlinemasters>)

ADMISSIONS

The Graduate School sets minimum requirements for admissions (<https://grad.wisc.edu/admissions/requirements>). Academic program admission requirements are often more rigorous than those set by the Graduate School. Please check the program's website (<https://geography.wisc.edu/gis/online-masters-program-application-information>) for details on how to apply.

For first consideration apply by **April 1 for fall** and **October 15 for spring**.

Final deadlines for complete applications are **July 1 for fall** and **December 15 for spring**.

International student final deadlines for complete applications are **June 1 for fall** and **November 15 for spring**.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Students in the GIS Development and Accelerated/Non-Thesis named options are not permitted to accept graduate assistantships or other appointments that would result in a tuition waiver and cannot enroll in other graduate programs nor take courses outside the prescribed curriculum.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
No	No	Yes	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement Half of degree coursework must be completed in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations No formal examination is required.

Language Requirements No language requirement.

REQUIRED COURSES

Students must complete the coursework for breadth requirements at an accredited institution of higher learning prior to entering the program. The Program Director, in consultation with the Program Admissions Committee, may choose to waive these requirements if an applicant provides evidence of sufficient knowledge in these areas gained through work experience. Students must have completed the equivalent of two (2) undergraduate-level courses in GIS and/or Cartography and Visualization, and one (1) course in Quantitative Methods.

Code	Title	Credits
GEOG 378	Introduction to Geocomputing	4
GEOG 572	Graphic Design in Cartography	4
GEOG 574	Geospatial Database Design and Development	4
GEOG 575	Interactive Cartography & Geovisualization	4
GEOG 576	Geospatial Web and Mobile Programming	4
GEOG 579	GIS and Spatial Analysis	4
GEOG 777	Capstone in GIS Development	4
GEOG 778	Practicum in GIS Development	4
Total Credits		32

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

NAMED OPTION-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://geography.wisc.edu/wp-content/uploads/2017/09/Geog-Grad-Handbook-Ver-17-18.0-Aug-2017.pdf>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 7 credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree or earned ten years is not allowed to satisfy requirements.

UW–Madison Undergraduate

With program approval, students are allowed to count no more than 7 credits of undergraduate graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree or earned ten years is not allowed to satisfy requirements.

UW–Madison University Special

With program approval, students may count 15 credits taken as a UW–Madison University Special student. Coursework earned five or more years prior to admission to the option may not be used to satisfy requirements.

PROBATION

The Department of Geography expects graduate students to progress through a sequence of benchmarks within prescribed time periods. These benchmarks constitute a reasonable rate of accomplishment for full-time students holding teaching or research appointments. The department recognizes that individual

circumstances vary, and not all students progressing toward their academic goals will hit the benchmarks exactly. Thus a student's progress is considered unsatisfactory only after a period of time elapses following an unmet benchmark. A student not making satisfactory progress is placed on probation. For detailed information about these benchmarks and triggers for probationary status, please see the department's Criteria for Satisfactory Progress (<http://www.geography.wisc.edu/graduate/Criteria%20for%20Satisfactory%20Progress.pdf>).

ADVISOR / COMMITTEE

All students are required to conduct a progress report each semester with the program director or manager. Failure to do so will result in a hold being placed on the student's registration.

CREDITS PER TERM ALLOWED

12 credits

TIME CONSTRAINTS

For program-specific time constraints, please see Probation Policy above.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PEOPLE

Associated Faculty: Lisa Naughton (Department Chair), A-Xing Zhu, Robert Roth, Qunying Huang, and Song Gao.

Staff: Ian Muehlenhaus (GIS Professional Programs Director), Brittney Markle (GIS Professional Programs Manager), and Joel Gruely (GIS Professional Programs Administrative Assistant)

GEOGRAPHY, DOCTORAL MINOR

Geography studies the interaction between people and their environments including the ways in which the people, the environments, and the interactions all vary from place to place over the earth. Because it is concerned with the character of people and their cultures on the one hand, and with the character of the earth's surface and its resources on the other, geography is both a social and a natural science. The UW geography program is organized into four major thematic areas: physical geography, people-environmental studies, cartography and GIS, and human geography. There is intentional overlap among the thematic areas and many of our faculty work across subfields (e.g., teach courses in both human and people-environment).

ADMISSIONS

For more information, contact: Marguerite Roulet, Graduate Program Director (maroulet@wisc.edu).

REQUIREMENTS

All students pursuing a concentrated minor in geography are required to connect with a faculty member with whom they can work to establish a reasonable course list to complete 9 credits in the department.

That faculty member will, ultimately, be responsible for signing off on completion of the minor. Students interested in the geography minor are encouraged to explore the department's faculty pages (<http://www.geography.wisc.edu/faculty>) and contact faculty members with shared research interests.

PEOPLE

Faculty: Professors Naughton (chair), Cadwallader, Cronon, Kaiser, Mason, Naughton, Olds, Turner, Williams, Zhu; Associate Professors Marin-Spiotta Robertson, Woodward; Assistant Professors Baird, Gibbs, Huang, Moore, Roth, Young

GEOGRAPHY, M.S.

The Department of Geography is a leader in the field of geography and offers exceptional opportunities for graduate education. The department has been consistently rated as one of the best in the country and, for over 100 years, has been the training ground for generations of geographers. The department's strength is reflected in its ability to attract top-caliber students, compete for significant research funding, and publish foundational scholarly work. The department maintains strength across the full spectrum of subfields within the discipline, and is organized into four major thematic areas: physical geography, people and environment, human geography, and cartography/GIS.

Department faculty and graduate students represent a diverse community within which a wide range of perspectives, approaches and research strategies is accommodated. The faculty has long been recognized nationally and internationally for outstanding contributions to geography and beyond. Many graduate students have gone on to prominence within government, industry, and academia and some of the most influential names in geography received their training in Madison.

The department offers two masters of science in geography (thesis option): a master of science in geography and a master of science in cartography and geographic information systems.

Graduate students at the M.S. level are expected to acquire a broad foundation in geography in addition to specializing in one or more areas of concentration. (Students pursuing the GIS development option in cartography/GIS focus on GIS and web map programming skills to bring to the workforce.) Students who earn the M.S. degree are prepared to continue on for the Ph.D., or for applied positions in government agencies, planning organizations, environmental agencies, nongovernmental organizations, and private industry.

Currently 69 students are enrolled in the graduate program: 7 are pursuing the M.S. in geography, 13 are pursuing the M.S. in cartography/GIS; and 49 are completing the Ph.D. The department takes in roughly 10–15 new graduate students each year. In recent years, about half of all incoming graduate students have completed an undergraduate major in a subject other than geography.

FACILITIES

Housed in historic Science Hall, the Department of Geography offers exceptional facilities for advanced study in geography, cartography, and GIS. The department maintains the University Cartographic Laboratory, the Arthur Robinson Map and Air Photo Library, the Geography Library of 65,000 volumes, a computer lab, several computer classrooms, and laboratory facilities specializing in biogeography, biogeochemistry, paleoecology, geomorphology, and soil research. In addition, the building houses the Wisconsin State Cartographer's Office, the History of Cartography Project, and the Gaylord Nelson Institute for Environmental Studies.

Graduate students may supplement their work in the geography department with study in other departments of the university, and there are frequent opportunities for advanced work in interdepartmental seminars. The location of the state capital at Madison makes possible easy contact with the state agencies, and some federal agencies.

ADMISSIONS

The department evaluates applicants to its graduate program on the basis of previous academic record, Graduate Record Exam (GRE) scores, letters of recommendation, and personal statement. The personal statement of research interest is very important to the department in imagining how the student might benefit from pursuing research with the faculty.

Students are accepted in the fall semester only. The deadline for applications wishing to be considered for financial aid is December 15 of the preceding year. (Applicants to the online professional masters named option in cartography/GIS can apply as late as the summer prior to courses beginning. Students in the GIS development named option are not eligible for departmental or university financial aid.) Contact the department for other admissions deadlines.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Roughly half the department's graduate students receive financial aid in the form of fellowships, teaching assistantships, or research assistantships. Most forms of financial assistance include eligibility for health insurance coverage and remission of tuition.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements No other grade requirements.

Assessments and Examinations A formal thesis is required.

Language Requirements No language requirement.

REQUIRED COURSES

Breadth Requirements

Most students complete the coursework for breadth requirements prior to entering the program. Students who begin the program lacking one or more of the breadth courses are expected to complete such coursework during the master's program. One course taken for breadth can also be used to fulfill degree requirements. Typically, these courses are not seminars. Students must complete the equivalent of one undergraduate-level course in each subarea (Physical Geography, Human Geography, People-Environment Geography, Cartography/GIS) and one undergraduate-level course in Statistics.

Coursework

GEOG 765 Geographical Inquiry and Analysis: An Introduction (1 credit) + GEOG 766 Geographical Inquiry and Analysis: Techniques (3 credit); two geography graduate courses 300-level and above: one can double count for breadth, cannot include seminars; two (3 credit) geography seminars with two different faculty members.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://geography.wisc.edu/geography-graduate-student-handbook>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 6 credits of graduate coursework from other institutions. coursework earned five or more years prior to admission to a master's degree or earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW-Madison Undergraduate

No credits from a UW-Madison undergraduate degree are allowed to count toward the degree.

UW-Madison University Special

With program approval, students are allowed to count no more than 6 credits of graduate coursework as defined above taken as a UW-Madison Special student. coursework earned five or more years prior to admission to a master's degree or earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

PROBATION

The Department of Geography expects graduate students to progress through a sequence of benchmarks within prescribed time periods. These benchmarks constitute a reasonable rate of accomplishment for full-time students holding teaching or research appointments. The department recognizes that individual circumstances vary, and not all students progressing toward their academic goals will hit the benchmarks exactly. Thus a student's progress is considered unsatisfactory only after a period of time elapses following an unmet benchmark. A student not making satisfactory progress is placed on probation. For detailed information about these benchmarks and triggers for probationary status, see the department's Criteria for Satisfactory Progress (<https://geography.wisc.edu/wp-content/uploads/2017/05/Criteria-for-Satisfactory-Progress.pdf>).

ADVISOR / COMMITTEE

Committee must have a minimum of three members, two of whom must be graduate faculty (or former graduate faculty up to one year after resignation/retirement) and two of whom must be affiliated with the geography department.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

For program-specific time constraints, please see Probation Policy above.

OTHER

We consider all applicants for multi-year guaranteed funding packages. This funding, however, is not plentiful and it is competitive. Decisions about funding are typically made by late February. These funding guarantees (typically two years for M.S. students and three years for Ph.D. students) are most commonly in the form of teaching assistantships and are guaranteed at a level such that students are eligible for health insurance and tuition remission.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Articulates, critiques, or elaborates the theories, research methods, and approaches to inquiry or schools of practice in geography.
2. Identifies sources and assembles evidence pertaining to questions or challenges in geography.
3. Demonstrates understanding of geography in a historical, social, or global context.
4. Selects and/or utilizes the most appropriate methodologies and practices.

5. Evaluates or synthesizes information pertaining to questions or challenges in geography.
6. Communicates clearly in ways appropriate to geography.
7. Recognizes and applies principles of ethical and professional conduct.

PEOPLE

FACULTY:

Department Chair: Lisa Naughton

Professors: William Cronon, Robert Kaiser, Joseph Mason, Lisa Naughton, Kris Olds, Matthew Turner, John (Jack) Williams, A-Xing Zhu

Associate Professors: Ian Baird, Holly Gibbs, Erika Marin-Spiota, Morgan Robertson, Robert Roth, Keith Woodward

Assistant Professors: Song Gao, Qunying Huang, Ken Keefover-Ring, Jenna Loyd, Sarah Moore, Stephen Young

GEOGRAPHY, PH.D.

The Department of Geography is a leader in the field of geography and offers exceptional opportunities for graduate education. The department has been consistently rated as one of the best in the country and, for over 100 years, has been the training ground for generations of geographers. The department's strength is reflected in its ability to attract top-caliber students, compete for significant research funding, and publish foundational scholarly work. The department maintains strength across the full spectrum of subfields within the discipline, and is organized into four major thematic areas: physical geography, people and environment, human geography, and cartography/GIS.

Department faculty and graduate students represent a diverse community within which a wide range of perspectives, approaches and research strategies is accommodated. The faculty has long been recognized nationally and internationally for outstanding contributions to geography and beyond. Many graduate students have gone on to prominence within government, industry, and academia and some of the most influential names in geography received their training in Madison.

The Ph.D. degree is founded primarily upon specialized advanced training and research. Students may specialize in a single subdisciplinary area or a combination of areas and are expected to engage in research leading to a dissertation that makes an original and significant contribution to geographic knowledge and ideas.

Currently 69 students are enrolled in the graduate program: 7 are pursuing the M.S. in geography, 13 are pursuing the M.S. in cartography/GIS; and 49 are completing the Ph.D. The department takes in roughly 10–15 new graduate students each year.

FACILITIES

Housed in historic Science Hall, the Department of Geography offers exceptional facilities for advanced study in geography, cartography, and GIS. The department maintains the University Cartographic Laboratory, the Arthur Robinson Map and Air Photo Library, the Geography Library of 65,000 volumes, a computer lab, several computer classrooms, and laboratory facilities specializing in biogeography, biogeochemistry, paleoecology, geomorphology, and soil research. In addition, the building

houses the Wisconsin State Cartographer's Office, the History of Cartography Project, and the Gaylord Nelson Institute for Environmental Studies.

Graduate students may supplement their work in the geography department with study in other departments of the university, and there are frequent opportunities for advanced work in interdepartmental seminars. The location of the state capital at Madison makes possible easy contact with the state agencies, and some federal agencies.

ADMISSIONS

The department evaluates applicants to its graduate program on the basis of previous academic record, Graduate Record Exam (GRE) scores, letters of recommendation, and personal statement. The personal statement of research interest is very important to the department in imagining how the student might benefit from pursuing research with the faculty.

Students are accepted in the fall semester only. The deadline for applications wishing to be considered for financial aid is December 15 of the preceding year. (Applicants to the online professional masters named option in cartography/GIS can apply as late as the summer prior to courses beginning. Students in the GIS development named option are not eligible for departmental or university financial aid.) Contact the department for other admissions deadlines.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Roughly half the department's graduate students receive financial aid in the form of fellowships, teaching assistantships, or research assistantships. Most forms of financial assistance include eligibility for health insurance coverage and remission of tuition.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum 51 credits

Credit Requirement

Minimum 32 credits

Residence Credit Requirement

Minimum Graduate Coursework Requirement Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.

Overall 3.00 GPA required.

Graduate GPA Requirement

Other Grade No other grade requirements.

Requirements

Assessments and Examinations Students must pass a general exam covering one of the breadth areas and a specific exam devised and graded by individual's committee. Student must orally defend dissertation proposal before a thesis committee.

Language Requirements Competence in a non-English language can be used to fulfill skills requirement.

Doctoral Minor/Breadth Requirements All doctoral students are required to complete a minor. Students who choose to complete the Culture, History and Environment doctoral minor can use no more than one Geography course for the minor and that course must be outside of the student's primary subarea of study

REQUIRED COURSES

Breadth Requirements

Students must complete the equivalent of one undergraduate-level course in each subarea (Physical Geography, Human Geography, People-Environment Geography, Cartography/GIS) and one undergraduate-level course in Statistics. One course taken for breadth can also be used to fulfill degree requirements. Typically, these courses are not seminars.

Most students complete this coursework for breadth requirements prior to entering the program. Students who begin the program lacking one or more of the breadth courses are expected to complete such coursework by the end of the 2nd semester in the Ph.D. program.

Coursework

GEOG 765 Geographical Inquiry and Analysis: An Introduction (1 cr); two (3 cr) geography seminars with two different faculty members (cannot use seminars completed as M.S. student); skills coursework (6 credits of intermediate or advanced courses)—any coursework completed as a graduate student can be used. Competence in non-English language OR quantitative and/or qualitative skills.

time periods. These benchmarks constitute a reasonable rate of accomplishment for full-time students holding teaching or research appointments. The department recognizes that individual circumstances vary, and not all students progressing toward their academic goals will hit the benchmarks exactly. Thus a student's progress is considered unsatisfactory only after a period of time elapses following an unmet benchmark. A student not making satisfactory progress is placed on probation. For detailed information about these benchmarks and triggers for probationary status, see the department's Criteria for Satisfactory Progress (<https://geography.wisc.edu/wp-content/uploads/2017/05/Criteria-for-Satisfactory-Progress.pdf>).

ADVISOR / COMMITTEE

Committee must have a minimum of five members. Four must be graduate faculty (or former graduate faculty up to one year after resignation/retirement) and at least two of whom must be Geography faculty. At least one must be non-geography (i.e., not affiliated with the geography program).

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://geography.wisc.edu/geography-graduate-student-handbook>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 9 credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree or earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

With program approval, students are allowed to count no more than 9 credits of graduate coursework as defined above taken as a UW–Madison Special student. Coursework earned five or more years prior to admission to a master's degree or earned ten year or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

PROBATION

The Department of Geography expects graduate students to progress through a sequence of benchmarks within prescribed

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

For program-specific time constraints, please see Probation Policy above.

OTHER

We consider all applicants for multi-year guaranteed funding packages. This funding, however, is not plentiful and it is competitive. Decisions about funding are typically made by late February. These funding guarantees (typically two years for M.S. students and three years for Ph.D. students) are most commonly in the form of teaching assistantships and are guaranteed at a level such that students are eligible for health insurance and tuition remission.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Articulates research problems, potentials, and limits with respect to theory, knowledge, or practice within geography.
2. Formulates ideas, concepts, designs, and/or techniques beyond the current boundaries of knowledge within geography.
3. Creates research, scholarship, or performance that makes a substantive contribution.
4. Demonstrates breadth within their learning experiences.
5. Advances contributions of geography to society.
6. Communicates complex ideas in a clear and understandable manner.

7. Fosters ethical and professional conduct.

PEOPLE

FACULTY

Department Chair: Lisa Naughton

Professors: William Cronon, Robert Kaiser, Joseph Mason, Lisa Naughton, Kris Olds, Matthew Turner, John (Jack) Williams, A-Xing Zhu

Associate Professors: Ian Baird, Holly Gibbs, Erika Marin-Spiotta, Morgan Robertson, Robert Roth, Keith Woodward

Assistant Professors: Song Gao, Qunying Huang, Ken Keefover-Ring, Jenna Loyd, Sarah Moore, Stephen Young

GEOSCIENCE

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Geoscience, Doctoral Minor (p. 654)
- Geoscience, M.S. (p. 654)
- Geoscience, Ph.D. (p. 657)

PEOPLE

Faculty: Professors Bahr, Brown, Carroll, DeMets, Feigl, Goodwin, Johnson, Kelly, Meyers, Peters, Roden, Singer, Thurber, Tikoff, Tobin, Valley, Wang, Xu; Assistant Professors Cardiff, Marcott, Zoet

GEOSCIENCE, DOCTORAL MINOR

The Geoscience minor provides students in the natural sciences with an opportunity to broaden and deepen their understanding of traditional areas of geoscience such as sedimentary geology, hydrogeology, geophysics, mineralogy, petrology, geochemistry, structural geology, and surface processes. The minor also offers coursework that connects to other earth and environmental science programs on campus including, for example, participation in the Nelson Institute for Environmental Studies and close collaboration with the College of Engineering to jointly train future geological engineers. We also offer courses that deal with societal problems including climate change, geohazards, the environment, and natural resources; and also courses that deal with big questions such as the origin of life in the solar system, geologic triggers for global biotic changes, and the deep-seated processes that drive earthquakes and volcanic eruptions. Regardless of the focus of the minor, the key learning outcome is for the student to understand how geoscientists approach problems, including development and evaluation of scientific hypotheses, ideas, and concepts within Geoscience. Our graduate courses require students to communicate complex ideas in a clear and understandable manner, an ability that will allow them to engage with and communicate with research professionals in Geoscience.

ADMISSIONS

Contact Professor Eric Roden, eroden@geology.wisc.edu.

REQUIREMENTS

Our minor requires a minimum of 9 credits in courses involving one or more faculty from Geoscience. The coursework may focus on a single geoscience discipline (e.g., one of the traditional areas listed in the Overview), or may be multidisciplinary across our various coursework options. Fulfillment of this option requires the approval of the graduate studies program coordinator.

PEOPLE

Faculty: Professors Bahr, Brown, Carroll, DeMets, Feigl, Goodwin, Johnson, Kelly, Meyers, Peters, Roden, Singer, Thurber, Tikoff, Tobin, Valley, Wang, Xu; Assistant Professors Cardiff, Marcott, Zoet

GEOSCIENCE, M.S.

The Department of Geoscience provides opportunity for advanced study leading to the master of science and the doctor of philosophy degrees. Broad research interests and numerous fields of specialization among the members of the faculty provide research opportunities in all major fields of earth science including geochemistry, geophysics, hydrogeology, microbial geoscience, mineralogy, nano-geoscience, paleontology, paleoclimatology/paleoceanography, petrology, quaternary geology, sedimentology, structural geology, and tectonics.

The graduate student is expected to acquire a broad foundation in geoscience and in the supporting sciences before specializing. Courses are selected by the student in consultation with a three-member guidance and evaluation committee. Individual research and scholarship is required in all graduate work. It is expected that the candidate for an advanced degree will make original contributions, develop new ideas, and complete a dissertation suitable for publication in a peer-reviewed journal, book, or report. Students may also obtain a joint master's degree in geoscience and water resources management if approved by both programs and the Graduate School.

The department maintains a variety of cutting-edge laboratories in Lewis G. Weeks Hall for the Geological Sciences. Strong connections also exist between the geoscience and geological engineering programs. Library and research facilities are available for advanced work in all important branches of the science. Geological survey offices in the Madison area, both state and federal, provide opportunities for cooperation with Survey geologists and the use of Survey facilities.

The program prepares students for teaching and research in academic positions, research work in state and federal organizations, and research and development in industry. The department coordinates interviews with potential employers several times during the year and maintains information on career placement. Students are actively involved in teaching and research programs and other scholarly activities of the department.

ADMISSIONS

Graduate students may enter the degree program with a bachelor's degree in geology or a related earth science, or some other field relevant to the intended field of specialization. In addition to meeting the minimum admission requirements of the Graduate School, candidates must have had one year each of college chemistry, physics, and calculus. Graduate students in paleobiology are allowed to substitute statistics courses for the calculus requirement. A student entering the program with an undergraduate degree in geology is expected to have completed a 6–8 credit course in geologic field mapping.

Applicants will not normally be admitted with deficiencies in more than two one-semester courses in the required cognate subjects (for example, a prospective student could be missing one semester of physics and one semester of calculus). Such deficiencies should be removed within the first year of graduate study. A deficiency in field geology normally must be removed before commencing graduate study. Promising students with excessive deficiencies may be advised to take courses as a Special student before becoming eligible to enter graduate studies. They cannot, however, receive financial aid while a Special student.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Financial assistance sufficient to meet the ordinary expenses of graduate school is available to qualified students in the form of fellowships and teaching or research assistantships. Prospective students should contact the department for information on available financial aid. All applicants must take the Graduate Record Exam (GRE).

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Contact the program for information on required assessments and examinations.

Language Requirements Contact the program for information on any language requirements.

REQUIRED COURSES

Courses are selected by the student in consultation with a three-member Guidance and Evaluation Committee.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<http://geoscience.wisc.edu/geoscience/academics/current-students/graduate-handbook-for-students-entering-program-fall-2014>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 15 credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

7 credits from a UW–Madison undergraduate degree are allowed to count toward the degree. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison University Special

With program approval, students are allowed to count no more than 15 credits of coursework numbered 300 or above taken as a UW–Madison Special student. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, or sometimes a committee, from

the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Qualified prospective students are considered for financial support in the form of graduate assistantships or fellowships at the same time they are considered for admission.

PROFESSIONAL LEARNING

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Articulates, critiques, or elaborates the scientific theories, scientific hypotheses, research methods, and approaches to inquiry or schools of practice in geoscience.
2. Identifies sources and assembles evidence pertaining to questions or challenges in geoscience.
3. Demonstrates understanding of geoscience in historical, social, or global context.
4. Selects and/or utilizes the most appropriate methodologies and practices.
5. Evaluates or synthesizes information pertaining to questions or challenges in geoscience.
6. Communicates clearly in ways appropriate to the geological sciences.
7. Recognizes and applies principles of ethical and professional conduct.

PEOPLE

Faculty: Professors Bahr, Brown, Carroll, DeMets, Feigl, Goodwin, Johnson, Kelly, Meyers, Peters, Roden, Singer, Thurber, Tikoff, Tobin, Valley, Wang, Xu; Assistant Professors Cardiff, Marcott, Zoet

GEOSCIENCE, PH.D.

The Department of Geoscience provides opportunity for advanced study leading to the master of science and the doctor of philosophy degrees. Broad research interests and numerous fields of specialization among the members of the faculty provide research opportunities in all major fields of earth science including geochemistry, geophysics, hydrogeology, microbial geoscience, mineralogy, nano-geoscience, paleontology, paleoclimatology/paleoceanography, petrology, quaternary geology, sedimentology, structural geology, and tectonics.

The graduate student is expected to acquire a broad foundation in geoscience and in the supporting sciences before specializing. Courses are selected by the student in consultation with a three-member guidance and evaluation committee. Individual research and scholarship is required in all graduate work. It is expected that the candidate for an advanced degree will make original contributions, develop new ideas, and complete a dissertation suitable for publication in a peer-reviewed journal, book, or report. Students may also obtain a joint master's degree in geoscience and water resources management if approved by both programs and the Graduate School.

The department maintains a variety of cutting-edge laboratories in Lewis G. Weeks Hall for the Geological Sciences. Strong connections also exist between the geoscience and geological engineering programs. Library and research facilities are available for advanced work in all important branches of the science. Geological survey offices in the Madison area, both state and federal, provide opportunities for cooperation with Survey geologists and the use of Survey facilities.

The program prepares students for teaching and research in academic positions, research work in state and federal organizations, and research and development in industry. The department coordinates interviews with potential employers several times during the year and maintains information on career placement. Students are actively involved in teaching and research programs and other scholarly activities of the department.

ADMISSIONS

Graduate students may enter the degree program with a bachelor's degree in geology or a related earth science, or some other field relevant to the intended field of specialization. In addition to meeting the minimum admission requirements of the Graduate School, candidates must have had one year each of college chemistry, physics, and calculus. Graduate students in paleobiology are allowed to substitute statistics courses for the calculus requirement. A student entering the program with an undergraduate degree in geology is expected to have completed a 6–8 credit course in geologic field mapping.

Applicants will not normally be admitted with deficiencies in more than two one-semester courses in the required cognate subjects (for example, a prospective student could be missing one semester of physics and one semester of calculus). Such deficiencies should be removed within the first year of graduate study. A deficiency in field geology normally must be removed before commencing graduate study. Promising students with excessive deficiencies may be advised to take courses as a Special student before becoming eligible to enter graduate studies. They cannot, however, receive financial aid while a Special student.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Financial assistance sufficient to meet the ordinary expenses of graduate school is available to qualified students in the form of fellowships and teaching or research assistantships. Prospective students should contact the department for information on available financial aid. All applicants must take the Graduate Record Exam (GRE).

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the

advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 51 credits

Minimum Residence Credit Requirement 32 credits

Minimum Graduate Coursework Requirement Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Doctoral students are required to take a comprehensive preliminary/oral examination after they have cleared their record of all Incomplete and Progress grades (other than research and thesis). Deposit of the doctoral dissertation in the Graduate School is required.

Language Requirements Contact the program for information on any language requirements.

Doctoral Minor/Breadth Requirements All doctoral students are required to complete a minor.

REQUIRED COURSES

Courses are selected by the student in consultation with a three-member Guidance and Evaluation Committee.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<http://geoscience.wisc.edu/geoscience/academics/current-students/graduate-handbook-for-students-entering-program-fall-2014>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 15 credits of graduate coursework from other institutions. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

7 credits from a UW–Madison undergraduate degree are allowed to count toward the degree. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison University Special

With program approval, students are allowed to count no more than 15 credits of coursework numbered 300 or above taken as a UW–Madison Special student. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies. An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor.

To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

OTHER

Qualified prospective students are considered for financial support in the form of graduate assistantships or fellowships at the same time they are considered for admission.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Formulates and plans original research.
2. Formulates scientific hypotheses, ideas, concepts, designs, and/or techniques beyond the current boundaries of knowledge within geoscience.
3. Creates research and scholarship that makes a substantive contribution.
4. Demonstrates breadth within their learning experiences, gaining a broad awareness of the status of contemporary research beyond the student's area of specialization.
5. Advances contributions of geoscience to society.
6. Communicates complex ideas in a clear and understandable manner, including the ability to engage and communicate with research professionals in geoscience.
7. Fosters ethical and professional conduct.

PEOPLE

Faculty: Professors Bahr, Brown, Carroll, DeMets, Feigl, Goodwin, Johnson, Kelly, Meyers, Peters, Roden, Singer, Thurber, Tikoff, Tobin, Valley, Wang, Xu; Assistant Professors Cardiff, Marcott, Zoet

GERMAN, NORDIC, AND SLAVIC

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- German, Doctoral Minor (p. 659)
- German, M.A. (p. 659)
- German, Ph.D. (p. 662)
- Russian, Doctoral Minor (p. 666)
- Scandinavian Studies, Doctoral Minor (p. 666)
- Scandinavian Studies, M.A. (p. 666)
- Scandinavian Studies, Ph.D. (p. 670)
- Slavic Languages and Literatures, Doctoral Minor (p. 674)
- Slavic Languages and Literatures, M.A. (p. 675)

- Slavic Languages and Literatures, Ph.D. (p. 677)

PEOPLE

GERMAN

Faculty: Professors Adler, Chavez, Gross, Howell, Loudon, Mani, Potter, Salmons, Vanderwal Taylor; Associate Professors Calomino, Klocke, Moedersheim; Assistant Professors Eldridge, Hollander, Li, Yudkoff; Faculty Associate Schueller

SCANDINAVIAN STUDIES

Faculty: Professors Brantly, DuBois, Wolf; Assistant Professors Andersen, Krouk

SLAVIC LANGUAGES AND LITERATURES

Faculty: Professors Danaher, Evans-Romaine, Filipowicz, Longinovic, Shevelenko, van de Water; Associate Professor Reynolds; Assistant Professor Zilbergerts; Faculty Associate Tumarkin

GERMAN, DOCTORAL MINOR

REQUIREMENTS

The department offers an external doctoral minor. Doctoral students outside the department may obtain a minor in German by taking three graduate-level courses, at least two of them at the 600 level or above, for a total of 9 credits.

Interested students should consult with the graduate coordinator mkmears@wisc.edu, and have the minor plan approved by the chair.

PEOPLE

Faculty: Professors Adler, Chavez, Gross, Howell, Loudon, Mani, Potter, Vanderwal Taylor; Associate Professors Calomino, Klocke, Moedersheim; Assistant Professors Eldridge, Hollander, Li, Yudkoff; Faculty Associate Schueller

GERMAN, M.A.

The graduate program in the German is recognized internationally for its comprehensive coverage of German studies and the thorough preparation of candidates for its graduate degrees. The German program is consistently among the most highly rated in the country and is near the top of the list of North American institutions in number of total graduate degrees granted in German. Graduates teach in colleges and universities across the country and around the world, affirming the department's reputation and significance.

The department is the home of the quarterly *Monatshefte* (<http://monatshefte.org>), founded in 1899 and one of the leading peer-reviewed international scholarly journals in the field of German literature and culture. The *Journal of Germanic Linguistics* (<http://german.lss.wisc.edu/~sgl/journal.html>), journal of the Society for Germanic Linguistics, is also produced in the department. In addition, the department provides an editorial home for *Diachronica* (<http://benjamins.com/catalog/journals/dia/main>), an international journal covering all aspects of historical and

comparative linguistics. The Max Kade Institute (<http://mki.wisc.edu>) for German-American Studies, founded in 1983, is an international center for research on German-American history, language, and culture. Its research and outreach missions aim to provide better understanding of how German-speaking immigrants to this country helped shape their new environment and how they have been shaped by it. The Center for German and European Studies (<http://daadcenter.wisc.edu>) (CGES), one of a handful of DAAD-sponsored centers in the US, is helping educate a new generation of experts on Germany and the new Europe across a wide variety of disciplines. It supports collaborative research and teaching of interdisciplinary and graduate seminars, and provides fellowships for graduate students interested in German and European studies.

The department offers curricula leading to the master of arts and the doctor of philosophy degrees in German.

The M.A. degree in German requires 30 credits of course work at the graduate level (10 courses) approved by the graduate advisor and the Masters examination. For details, see the program description on the department website (<https://gns.wisc.edu/german-graduate-program>) or contact the graduate coordinator, mkmears@wisc.edu.

The Ph.D. requires an additional eight courses (24 credits) for a total of 18 courses (54 credits) [for students entering with an M.A. from another institution: a total of 12 courses/36 credits, of which up to two can be transfer courses as allowed by graduate advisor], an external doctoral minor, proof of proficiency in another foreign language, and a preliminary qualifying exam in preparation for writing a Ph.D. thesis. Students must pass the Goethe Certificate C1 (German-language proficiency) before advancing to the doctoral preliminary examination. For details, see the program description on the department Web site or contact the graduate coordinator, mkmears@wisc.edu.

The department offers a broadly inclusive and flexible curriculum in the entire range of medieval through contemporary literature and culture, a full spectrum of linguistics and philology, and a program in Dutch language, literature, and culture. The program is unsurpassed in comprehensive representation of the entire field of the study of German through individual faculty members' specializations and research publications, including: early modern and medieval studies; film and media studies; multicultural literature and cosmopolitanism; *Gegenwartsliteratur*; literary and cultural theory; Holocaust studies; poetics, stylistics, and narratology; 18th-century studies; literature in its sociocultural context; literary and cultural theory; Dutch literature and linguistics; historical and synchronic linguistics; applied linguistics, second language acquisition, and foreign language education. Offerings include interdisciplinary areas such as literature and other arts (especially image/text, visual culture, and literature/music), German-Americana, literature and philosophy, and German–Jewish relations.

Graduate students are encouraged to pursue inter- and multidisciplinary work beyond the Department of German in such areas as art history, communication arts/cinema, comparative literature, history, linguistics, musicology, Scandinavian studies, visual studies, and women and gender studies. The department cooperates closely with the interdepartmental programs in European studies, Medieval studies, Jewish studies, and Second Language Acquisition.

language skills. Applicants with a B.A. in German must have a cumulative undergraduate GPA of at least 3.0 (on a 4.0 scale) on the equivalent of the last 60 semester credits and a GPA of at least 3.50 in German courses beyond the second-year level. Students with an M.A. in German must have a GPA in graduate work of at least 3.7 on a 4.0 scale. In special cases, applicants who do not fulfill the above expectations may be admitted on probation.

All applicants must submit official transcripts of all university course work (or equivalents, including study abroad), list of courses in progress, Graduate Record Exam (GRE) scores, a personal statement explaining the reasons for graduate study, a current c.v. or resume, a writing sample in German (5–15 pages), and three letters of recommendation that evaluate previous study and potential for graduate study. International applicants must also provide TOEFL, MELAB, or IELTS scores, a financial statement form included with the application materials, and, if applying for a teaching assistantship, a ten-minute recording with a sample of the applicant's spoken English.

Application to the UW–Madison Graduate School is an online procedure, with supporting documentation mailed to the Department of German. Applicants should contact the department early in the fall if they wish additional information. Visits to the UW–Madison campus are welcomed by faculty and graduate students.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Financial support is competitive. In general, the application deadline for financial support is January 2. Graduate applicants admitted to the program are eligible for a limited number of comprehensive multiyear financial guarantees. These include teaching and project assistantships as well as fellowships. In addition to university fellowships, the department may award a small number of distinguished fellowships, and offers a number of project assistantships, including research and editorial positions.

ADMISSIONS

Applicants are expected to demonstrate a strong record of prior and potential academic achievement in addition to excellent German

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.5 GPA required.

Other Grade Requirements If a student's GPA falls below 3.50 in any given semester, the cumulative average by the end of the following full-time semester must be 3.50.

The grade of C is considered unsatisfactory in the Department of German: it is not counted in fulfilling the course requirements and may not be offset by a grade of A or AB in another course.

An incomplete received in the Fall Semester must be removed by the end of the following summer session. An incomplete received in the Spring Semester must be removed by the end of the following Fall Semester. An incomplete received in the summer session must be removed within six months. Failure to meet these deadlines constitutes unsatisfactory progress.

Assessments and Examinations Students entering the program at the M.A. level are required to take the Goethe Certificate C1 (German-language proficiency) during the first year of their studies.

At least one substantial course contribution written in German is required each year during the entire period of a student's graduate coursework. This might be a paper or a lengthy take-home examination. If a student is taking only courses outside the department in a given year, the requirement will be waived for that year.

An M.A. examination with a written and oral component.

Language Requirements Please see "Assessments and Examinations" above.

REQUIRED COURSES

Code	Title	Credits
Required Courses		
GERMAN 650	History of the German Language	3
GERMAN 720	College Teaching of German	1
GERMAN 722	Theory of Teaching German	2
Select one of the following:		3
GERMAN 612	German Literary Movements Since 1750	
GERMAN 703	18th Century German Literature	
GERMAN 708	19th Century German Literature	
GERMAN 709	German Literature of the 20th and 21st Centuries	

Two courses (6 cr) taken outside the department may count toward M.A. coursework.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

Students are generally not allowed to count graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

With program approval students are allowed no more than 7 credits of coursework numbered 600 or above taken as a UW undergraduate. In no case will coursework be considered that was earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison University Special

With program approval, students are allowed to count no more than 15 credits of coursework numbered 600 or above taken as a UW–Madison University Special student. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

Students admitted on probation must maintain a GPA of at least 3.50 in graduate work done during each of their first two full-time semesters or the equivalent at this university, otherwise they will be dropped from the program. After performing satisfactorily during the probation period, students are expected to perform as well as students granted admission in full standing.

ADVISOR / COMMITTEE

All incoming M.A. candidates are advised by the department graduate advisor (DGA) during the first year of study. M.A. candidates are expected to select (by mutual consent) their individual graduate advisor during the third semester of coursework. The individual graduate advisor is likely to be chair of the M.A. examination committee, the Ph.D. preliminary examination committee, and the dissertation committee.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

The M.A. examination must be completed by the end of the fourth semester in the German program.

OTHER

Financial support is competitive. The applications deadline for financial support is January 15. Graduate applicants admitted to the program are eligible for a limited number of comprehensive multi-year financial guarantees. In addition to university fellowships, the department may award a small number of Distinguished Fellowships, and offers an unusually large and varied number of teaching and project assistantships.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Selects and/or utilizes the most appropriate methodologies and practices.
2. Evaluates or synthesizes information pertaining to questions or challenges in the field of study.
3. Communicates clearly in ways appropriate to the field of study.
4. Recognizes and practices principles of effective foreign language teaching.
5. Recognizes and applies principles of ethical and professional conduct.
6. Articulates, critiques, or elaborates the theories, research methods, and approaches to inquiry or schools of practice in the field of study.
7. Identifies sources and assembles evidence pertaining to questions or challenges in the field of study.
8. Demonstrates understanding of the primary field of study in a historical, social or global context.

PEOPLE

Faculty: Professors Adler, Chavez, Gross, Howell, Loudon, Mani, Potter, Vanderwal Taylor; Associate Professors Calomino, Klocke, Moedersheim; Assistant Professors Eldridge, Hollander, Li, Yudkoff; Faculty Associate Schueller

GERMAN, PH.D.

The graduate program in the German is recognized internationally for its comprehensive coverage of German studies and the thorough preparation of candidates for its graduate degrees. The German program

is consistently among the most highly rated in the country and is near the top of the list of North American institutions in number of total graduate degrees granted in German. Graduates teach in colleges and universities across the country and around the world, affirming the department's reputation and significance.

The department is the home of the quarterly *Monatshefte* (<http://monatshefte.org>), founded in 1899 and one of the leading peer-reviewed international scholarly journals in the field of German literature and culture. The *Journal of Germanic Linguistics* (<http://german.lss.wisc.edu/~sgl/journal.html>), journal of the Society for Germanic Linguistics, is also produced in the department. In addition, the department provides an editorial home for *Diachronica* (<http://benjamins.com/catalog/journals/dia/main>), an international journal covering all aspects of historical and comparative linguistics. The Max Kade Institute (<http://mki.wisc.edu>) for German-American Studies, founded in 1983, is an international center for research on German-American history, language, and culture. Its research and outreach missions aim to provide better understanding of how German-speaking immigrants to this country helped shape their new environment and how they have been shaped by it. The Center for German and European Studies (<http://daadcenter.wisc.edu>) (CGES), one of a handful of DAAD-sponsored centers in the US, is helping educate a new generation of experts on Germany and the new Europe across a wide variety of disciplines. It supports collaborative research and teaching of interdisciplinary and graduate seminars, and provides fellowships for graduate students interested in German and European studies.

The department offers curricula leading to the master of arts and the doctor of philosophy degrees in German.

The M.A. degree in German requires 30 credits of course work at the graduate level (10 courses) approved by the graduate advisor and the Masters examination. For details, see the program description on the department website (<https://gns.wisc.edu/german-graduate-program>) or contact the graduate secretary, mkmears@wisc.edu.

The Ph.D. requires an additional eight courses (24 credits) for a total of 18 courses (54 credits) [for students entering with an M.A. from another institution: a total of 12 courses/36 credits, of which up to two can be transfer courses as allowed by graduate advisor], an external doctoral minor, proof of proficiency in another foreign language, and a preliminary qualifying exam in preparation for writing a Ph.D. thesis. Students must pass the Goethe Certificate C1 (German-language proficiency) before advancing to the doctoral preliminary examination. For details, see the program description on the department Web site or contact the graduate secretary, mkmears@wisc.edu.

The department offers a broadly inclusive and flexible curriculum in the entire range of medieval through contemporary literature and culture, a full spectrum of linguistics and philology, and a program in Dutch language, literature, and culture. The program is unsurpassed in comprehensive representation of the entire field of the study of German through individual faculty members' specializations and research publications, including: early modern and medieval studies; film and media studies; multicultural literature and cosmopolitanism; *Gegenwartsliteratur*; literary and cultural theory; Holocaust studies; poetics, stylistics, and narratology; 18th-century studies; literature in its sociocultural context; literary and cultural theory; Dutch literature and linguistics; historical and synchronic linguistics; applied linguistics, second language acquisition, and foreign language education. Offerings include interdisciplinary areas such as literature and other arts (especially

image/text, visual culture, and literature/music), German-Americana, literature and philosophy, and German–Jewish relations.

Graduate students are encouraged to pursue inter- and multidisciplinary work beyond the Department of German in such areas as art history, communication arts/cinema, comparative literature, history, linguistics, musicology, Scandinavian studies, visual studies, and women and gender studies. The department cooperates closely with the interdepartmental programs in European studies, medieval studies, Jewish studies, and second language acquisition.

ADMISSIONS

Applicants are expected to demonstrate a strong record of prior and potential academic achievement in addition to excellent German language skills. Applicants with a B.A. in German must have a cumulative undergraduate GPA of at least 3.0 (on a 4.0 scale) on the equivalent of the last 60 semester credits and a GPA of at least 3.50 in German courses beyond the second-year level. Students with an M.A. in German must have a GPA in graduate work of at least 3.7 on a 4.0 scale. In special cases, applicants who do not fulfill the above expectations may be admitted on probation.

All applicants must submit official transcripts of all university course work (or equivalents, including study abroad), list of courses in progress, Graduate Record Exam (GRE) scores, a personal statement explaining the reasons for graduate study, a current c.v. or resume, a writing sample in German (5–15 pages), and three letters of recommendation that evaluate previous study and potential for graduate study. International applicants must also provide TOEFL, MELAB, or IELTS scores, a financial statement form included with the application materials, and, if applying for a teaching assistantship, a ten-minute recording with a sample of the applicant's spoken English.

Application to the UW–Madison Graduate School is an online procedure, with supporting documentation mailed to the Department of German. Applicants should contact the department early in the fall if they wish additional information. Visits to the UW–Madison campus are welcomed by faculty and graduate students.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Financial support is competitive. In general, the application deadline for financial support is December 20. Graduate applicants admitted to the program are eligible for a limited number of comprehensive multiyear

financial guarantees. These include teaching and project assistantships as well as fellowships. In addition to university fellowships, the department may award a small number of distinguished fellowships, and offers a number of project assistantships, including research and editorial positions.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement For students who earned an M.A. in German at UW–Madison: 69 credits (including the 30 credits for the M.A. earned in the department + 9 credits minimum for Ph.D. minor + 6 dissertator credits)

For students entering with M.A. in German from another institution: 51 credits (36 credits + 9 credits minimum for Ph.D. minor + 6 dissertator credits)

Minimum Residence Credit Requirement 32 credits

Minimum Graduate Coursework Requirement For students who earned an M.A. in German at UW–Madison: Half of the degree coursework, 35 credits out of 69 total credits must be completed in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the University's Course Guide (<http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle>). This includes the 30 credits for the M.A. earned in the Department.

For students entering with M.A. in German from another institution: Half of degree coursework (26 credits out of 51 total credits) must be completed in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle>).

Overall Graduate GPA Requirement 3.5 GPA required for courses taken in the department; 3.00 GPA for work done in the minor.

Other Grade Requirements If a student's GPA falls below 3.50 in any given semester, the cumulative average by the end of the following full-time semester must be 3.50.

The grade of C is considered unsatisfactory in the Department of German: it is not counted in fulfilling the course requirements and may not be offset by a grade of A or AB in another course.

An incomplete received in the fall semester must be removed by the end of the following summer session. An incomplete received in the spring semester must be removed by the end of the following fall semester. An incomplete received in the summer session must be removed within six months. Failure to meet these deadlines constitutes unsatisfactory progress.

Assessments and Examinations Students must pass the Goethe Certificate C1 (German language proficiency) before advancing to the doctoral preliminary exams.

At least one substantial course contribution written in German is required each year during the entire period of a student's graduate coursework. This might be a paper or a lengthy take-home examination. If a student is taking only courses outside the department in a given year, the requirement will be waived for that year.

An oral preliminary examination and a dissertation proposal must be completed after all required Ph.D. coursework.

Language Requirements In addition to German students must demonstrate reading knowledge in a second foreign language, equivalent to at least four semesters of college work in that language, before proceeding to the preliminary examination.

Doctoral Minor/Breadth Requirements All doctoral students are required to complete a minor.

REQUIRED COURSES

Students who completed the M.A. in German (p. 659) at the UW–Madison must complete 8 additional graduate-level courses (24 credits);

more courses/credits if one or two of the M.A. courses were taken outside the department);

Students who enter the Ph.D. program with an M.A. in German from elsewhere complete a minimum of 12 graduate-level course (36 cr), of which two (6 cr) may be transferred from previous work, if suitable, including the teaching assistant training program and its academic component (GERMAN 720 College Teaching of German/GERMAN 722 Theory of Teaching German).

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

Students are generally not allowed to count graduate coursework from other institutions. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the Ph.D. degree.

UW–Madison University Special

With program approval, students are allowed to count no more than 15 credits of coursework numbered 600 or above taken as a UW–Madison University Special student. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

A semester GPA below 3.5 will result in the student being placed on academic probation. If a semester GPA of 3.5 is not attained during the subsequent semester, the student may be dismissed from the program or allowed to continue for 1 additional semester based on advisor appeal to the Graduate School.

ADVISOR / COMMITTEE

Students joining the program with an M.A. degree will either be advised by the department graduate advisor (DGA) and choose their individual advisor before the end of their second semester of coursework in consultation with the DGA, or be assigned an individual advisor when they enter the program. The individual advisor will be the chair of the Ph.D. preliminary examination committee and the dissertation committee.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Ph.D. candidates should take the two-hour oral preliminary examination no sooner than upon completion of the second semester of the Ph.D. coursework and may take it no later than three weeks after the beginning of the fifth full-time semester (or its equivalent) after the M.A.

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

OTHER

Financial support is competitive. The applications deadline for financial support is January 15. Graduate applicants admitted to the program are eligible for a limited number of comprehensive multiyear financial guarantees. In addition to university fellowships, the department may award a small number of Distinguished Fellowships, and offers an unusually large and varied number of teaching and project assistantships.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Articulates research problems, potentials, and limits with respect to theory, knowledge, or practice within the field of study.
2. Formulates ideas, concepts, designs, and/or techniques beyond the current boundaries of knowledge within the field of study.
3. Creates research and scholarship that makes a substantive contribution.
4. Communicates complex ideas in a clear and understandable manner.

5. Recognizes and practices principles of effective foreign language teaching and program coordination.
6. Has adequate German language skills to function effectively in a professional capacity consistent with a Ph.D. in the field.
7. Fosters ethical and professional conduct.
8. Functions well at professional conferences: presents research, engages in professional dialogue.

PEOPLE

Faculty: Professors Adler, Chavez, Gross, Howell, Loudon, Mani, Potter, Vanderwal Taylor; Associate Professors Calomino, Klocke, Moedersheim; Assistant Professors Eldridge, Hollander, Li, Yudkoff; Faculty Associate Schueller

RUSSIAN, DOCTORAL MINOR

Contact: Professor Irina Shevelenko (<http://gns.wisc.edu/person/irina-shevelenko>)

Code	Title	Credits
Required		
At least 6 credits in 700- or 900-level Slavic courses in Russian literature.		6
Remaining Credits		
400-level Slavic courses in Russian literature and up to one of the following:		6
SLAVIC 321	Fourth Year Russian I	
SLAVIC 322	Fourth Year Russian II	
SLAVIC 802	The Structure of Russian	
Total Credits		12

PEOPLE

Faculty: Professors Danaher, Evans-Romaine, Filipowicz, Longinovic, Shevelenko, van de Water; Associate Professors Reynolds; Assistant Professor Zilbergerts; Faculty Associate Tumarkin

SCANDINAVIAN STUDIES, DOCTORAL MINOR

REQUIREMENTS

A prospective minor in Scandinavian studies must have a program approved in advance by the graduate advisor, and is urged to discuss the entire doctoral program with this advisor at the earliest possible opportunity. In general, the requirements for the minor are a minimum of 12 credits in Scandinavian studies (http://guide.wisc.edu/courses/scand_st) at the graduate level, and reading proficiency in one Scandinavian language (including Old or modern Icelandic) or in Finnish or Sámi.

PEOPLE

Faculty: Professors Brantly, DuBois, Leary, Wolf; Associate Professor Allen (Chair); Assistant Professor Krouk

SCANDINAVIAN STUDIES, M.A.

Candidates for the master of arts in Scandinavian studies will specialize in one and only one of the following three fields: literature, philology, or area studies.

Scandinavian studies is in the oldest such department in the Americas, tracing its roots to 1875. Department faculty have received numerous awards and other marks of recognition for their teaching and scholarship. The department offers the master of arts and the doctor of philosophy in Scandinavian studies. A doctoral minor is also available. Graduate students must be fluent in one Scandinavian language and specialize in one particular area, but they may expect to gain a knowledge of the wider Nordic region during their studies. The program offers the possibility to attain a broad education in Scandinavian culture that has proven to be extremely useful in students' professional careers. Students will become well-versed in theory and methodology as well as in cultural history. The department possesses particular strengths in Scandinavian literature, Old Norse philology, and Nordic folklore. Within these broader categories, students may pursue interests in such topics as, mythology, Sámi studies, saint's lives, modernism, sagas, gender criticism, immigration studies, national identity—to name only a few. Languages offered in the department include Danish, Finnish, Icelandic, Norwegian, Sámi, and Swedish. The department has an excellent record of placing its Ph.D. graduates in good positions in the field.

ADMISSIONS

Applicants should have a B.A. degree from an approved institution, a major in a field of humanities or social studies, and an outstanding record. Applicants are expected to have preparation equivalent to an undergraduate major in Scandinavian studies at UW–Madison, and must either have taken three years of a Scandinavian language or must demonstrate (by examination) equivalent competence in one Scandinavian language or Finnish. A GPA of 3.25 (on a 4.0 scale) is required for admission; students with a GPA below 3.25 but above 3.00 may be considered for admission on probation. All applicants must submit Graduate Record Exam (GRE) scores.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from

the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

The department has a number of scholarships, fellowships, teaching assistantships, and readerships at its disposal and makes a serious effort to provide qualified students with adequate financial assistance and teaching experience throughout their graduate careers.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement	30 credits
Minimum Residence Credit Requirement	16 credits
Minimum Graduate Coursework Requirement	Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (https://registrar.wisc.edu/course-guide/).

Overall Graduate GPA Requirement	3.25 GPA required. GPA of 3.0 or above may be considered for admission on probation.
Other Grade Requirements	No other requirements.
Assessments and Examinations	All M.A. tracks require a comprehensive written and oral examination. The literature and area studies tracks offer a thesis option.
Language Requirements	All tracks require an advanced competency in a modern Scandinavian language. If the modern Scandinavian Language is Finnish or Icelandic, a working knowledge of Norwegian, Swedish, or Danish is required. For all tracks a minimal competency (e.g., ETS score of 525) in German or another research language approved by the department is required. The philology track requires two semesters of Old Norse or its equivalent. For the literature track a competency in Old Norse is encouraged.

REQUIRED COURSES

Each track has specific course requirements to be met.

Literary and Cultural Studies Track ¹

Code	Title	Credits
30 graduate degree credits, minimum.		
Required Courses (15-17 credits)		
SCAND ST 401	Contemporary Scandinavian Languages	3
Select one of the following:		3-4
SCAND ST/MEDIEVAL 407	Old Norse	
SCAND ST 429	Mythology of Scandinavia	
SCAND ST/MEDIEVAL 430	The Vikings	
SCAND ST 435	The Icelandic Sagas	
Select one of the following:		3-4
SCAND ST/HISTORY 431	History of Scandinavia to 1815	
SCAND ST/HISTORY 432	History of Scandinavia Since 1815	
SCAND ST/HISTORY 577	Contemporary Scandinavia: Politics and History	
Select one of the following, depending on individual circumstances and determined in consultation with the graduate advisor (3 credits):		3
SCAND ST 901	Seminar in Special Topics	
SCAND ST 634	Survey of Scandinavian Literature: 1500-1800	
SCAND ST 635	Survey of Scandinavian Literature: 1800-1890	
Select a course that includes professional development (3 credits):		3
SCAND ST 630	Fundamentals of Bibliography and Research	

GNS 700 Graduate Seminar in Professional Development		
Total credits:		15-17
Recommended courses:		
SCAND ST 419	Scandinavian Children's Literature	4
SCAND ST 420	The Woman in Scandinavian Literature	4
SCAND ST 422	The Drama of Henrik Ibsen	4
SCAND ST 423	The Drama of August Strindberg	4
SCAND ST 424	Nineteenth-Century Scandinavian Fiction	3-4
SCAND ST 425	Knut Hamsun and the 20th Century Norwegian Novel	4
SCAND ST 426	Kierkegaard and Scandinavian Literature	4
SCAND ST 427	Contemporary Scandinavian Literature	4
SCAND ST/ LITTRANS 428	Memory and Literature from Proust to Knausgard	3
SCAND ST 433	The Scandinavian Tale and Ballad	4
SCAND ST 434	The Art of Isak Dinesen/Karen Blixen	4
SCAND ST/ FOLKLORE/ MEDIÉVAL 446	Celtic-Scandinavian Cultural Interrelations	3
SCAND ST 450	Scandinavian Decadence in its European Context	3-4

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Philology Track ¹

Code	Title	Credits
The following are departmental guidelines for a philology specialization, though ultimately everything must be approved by the graduate advisor.		
30 graduate credits, minimum.		
Required courses (21 credits)		
SCAND ST 401	Contemporary Scandinavian Languages	3
SCAND ST/ MEDIÉVAL 407 & SCAND ST/ MEDIÉVAL 408	Old Norse and Old Norse	6
SCAND ST 410	Introduction to Scandinavian Linguistics	3
Select one of the following: (3 credits)		3
SCAND ST 414	History of the Scandinavian Languages I: Proto- to Common Scandinavian	
SCAND ST 415	History of the Scandinavian Languages II: Standard Languages	
SCAND ST 510	Topics in Scandinavian Linguistics	
Select one of the following: (3 credits)		3
SCAND ST 496	The Scandinavian Heritage in America	

SCAND ST/ MEDIÉVAL 409	Survey of Old Norse-Icelandic Literature	
Select a course that includes professional development: (3 credits)		3
SCAND ST 630	Fundamentals of Bibliography and Research	
GNS 700 Graduate Seminar in Professional Development		
Total credits:		21
Other recommended Courses:		
SCAND ST 435	The Icelandic Sagas	4
SCAND ST/ FOLKLORE/ MEDIÉVAL 446	Celtic-Scandinavian Cultural Interrelations	3
GERMAN/ MEDIÉVAL 755	Old Germanic Languages	3
GERMAN 768	Comparative and Historical Grammar of the Old Germanic Languages	3
GERMAN 991	Individual Research Linguistics and Germanic Philology	1-9
ENGL/ MEDIÉVAL 520	Old English	3
ENGL 417	History of the English Language	3
ENGL/HISTORY/ RELIG ST 360	The Anglo-Saxons	3

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Area Studies Track ¹

Code	Title	Credits
30 graduate degree credits, minimum.		
Required Courses (24-29 credits):		
Select one of the following: (3 credits)		3
1. One Seminar in the student's emphasis area.		
2. A thesis of ca. 40-50 pages on a topic agreed upon by the student and advisor.		
One course in Scandinavian literature or literary history. (3-4 credits)		3-4
SCAND ST 401	Contemporary Scandinavian Languages	3
A course that includes professional development. (3 credits)		3
SCAND ST 630	Fundamentals of Bibliography and Research	
GNS 700 Graduate Seminar in Professional Development		
Four (4) courses agreed upon by the student and advisor; Courses need not be within the Scandinavian Studies program, but should be identified by the student and advisor during the first year of study. (12-16 credits)		12-16
Total credits:		24-29
Other recommended courses:		
SCAND ST 429	Mythology of Scandinavia	4

SCAND ST/ HISTORY 431	History of Scandinavia to 1815	3
SCAND ST/ HISTORY 432	History of Scandinavia Since 1815	3
SCAND ST 433	The Scandinavian Tale and Ballad	4
SCAND ST 435	The Icelandic Sagas	4
SCAND ST/ FOLKLORE 440	Scandinavian American Folklore	3
SCAND ST/ FOLKLORE 443	Sami Culture, Yesterday and Today	4
SCAND ST/ MIEVEAL 444	Kalevala and Finnish Folk-Lore	4
SCAND ST/ FOLKLORE/ MIEVEAL 446	Celtic-Scandinavian Cultural Interrelations	3
SCAND ST 496	The Scandinavian Heritage in America	3
Possible courses of interest:		
FOLKLORE 320	Folklore of Wisconsin	3
FOLKLORE/ RELIG ST 359	Myth	3
FOLKLORE 451	The Supernatural in the Modern World	3
FOLKLORE 460	Folk Epics	3
FOLKLORE/ GEN&WS 467	Women and Politics in Popular Culture and Folklore	3
FOLKLORE/ ANTHRO 520	Ethnic Representations in Wisconsin	4
FOLKLORE/ COM ARTS 522	Digitally Documenting Everyday Communication	3
FOLKLORE/ MUSIC 535	American Folk and Vernacular Music	3
FOLKLORE/ ANTHRO/MUSIC/ THEATRE 539	The Folklore of Festivals and Celebrations	3
FOLKLORE 540	Local Culture and Identity in the Upper Midwest	3
ART HIST 364	History of American Art: Art, Material Culture, and Constructions of Identity, 1607-present	3-4
ART HIST 432	Multiculturalism and the New Museology	3-4
ART HIST 463	Topics in American Material Culture	3-4
ART HIST 601	Introduction to Museum Studies I	3
ENGL/HISTORY/ RELIG ST 360	The Anglo-Saxons	3
ENGL/ MIEVEAL 427	Chaucer's Canterbury Tales	3
GEOG 342	Geography of Wisconsin	3
GERMAN 650	History of the German Language	3
GERMAN/ MIEVEAL 651	Introduction to Middle High German	3
GERMAN 701	Literature of the Middle Ages (750-1400)	3
GERMAN/ MIEVEAL 755	Old Germanic Languages	3

HISTORY 359	History of Europe Since 1945	3-4
HISTORY 408	American Labor History: 1900- Present	3-4
HISTORY/ SCAND ST 577	Contemporary Scandinavia: Politics and History	3-4
HISTORY 929	Labor and Working Class History in the United States	3
HISTORY/L I S 976	Special Problems in Archives- Manuscripts Administration	3
HISTORY/L I S 977	The Practice of Archives- Manuscripts Administration	3
LAND ARC 677	Cultural Resource Preservation and Landscape History	3
LAND ARC/ANTHRO/ ART HIST/DS/ HISTORY 764	Dimensions of Material Culture	4
RELIG ST/ FOLKLORE 352	Shamanism	3

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 9 credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW-Madison Undergraduate

No credits from a UW-Madison undergraduate degree are allowed to count toward the degree.

UW-Madison University Special

With program approval, students are allowed to count no more than 9 credits of coursework numbered 300 or above taken as a UW-Madison University Special student. Coursework earned five or more years prior to admission to a Master's degree is not allowed to satisfy requirements.

PROBATION

If a student at any time fails to meet the above criteria for satisfactory progress, he/she is placed on probation. If, by the end of the following semester, progress has not been brought to a satisfactory level, a committee of three faculty members will be established to determine whether any circumstance exists that prevent the dropping of the student from the program.

ADVISOR / COMMITTEE

In order to encourage progress toward the degree and to determine the status of a student's program, the department requests an annual activities report from all continuing students to be submitted by the end of January. In the case of first-year students, this report will, of course, only cover work done during the fall semester. A copy of this report will be placed in the student's permanent file. Students are expected to consult regularly on their progress with their advisor.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

The normal time for completing the requirements for the M.A. is three to four semesters, although more time can be allowed if a student is entering with deficiencies or has had teaching assistantships, which necessitate a lower credit load.

OTHER

n/a

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Articulates, critiques, or elaborates the theories, research methods, and approaches to inquiry or schools of practice in the field of study.
2. Identifies sources and assembles evidence pertaining to questions or challenges in the field of study.
3. Demonstrates understanding of the primary field of study in a historical, social, or global context.
4. Selects and/or utilizes the most appropriate methodologies and practices.
5. Evaluates or synthesizes information pertaining to questions or challenges in the field of study.
6. Communicates clearly in ways appropriate to the field of study.
7. Possesses an advanced competency in a Nordic language and a serviceable master of an additional research language.
8. Recognizes and applies principles of ethical and professional conduct.

PEOPLE

Faculty: Professors Brantly, DuBois, and Wolf; Assistant Professors Andersen and Krouk.

SCANDINAVIAN STUDIES, PH.D.

The Ph.D. degree is offered in the fields of literature, folklore, and philology. The basic requirements for all students entering the Ph.D. program correspond to the requirements for the M.A. degree in Scandinavian Studies with concentration in literature, area studies, or philology, as appropriate. Every incoming graduate student should consult with the general graduate advisor upon arrival at UW–Madison. They will discuss the student's academic and career plans, and between them will decide which faculty member will most appropriately act as a committee chair.

Scandinavian studies is the oldest such department in the Americas, tracing its roots to 1875. Department faculty have received numerous awards and other marks of recognition for their teaching and scholarship. The department offers the master of arts and the doctor of philosophy in Scandinavian studies. A doctoral minor is also available. Graduate students must be fluent in one Scandinavian language and specialize in one particular area, but they may expect to gain a knowledge of the wider Nordic region during their studies. The program offers the possibility to attain a broad education in Scandinavian culture that has proven to be extremely useful in students' professional careers. Students will become well-versed in theory and methodology as well as in cultural history. The department possesses particular strengths in Scandinavian literature, Old Norse philology, and Nordic folklore. Within these broader categories, students may pursue interests in such topics as, mythology, Sámi studies, saint's lives, modernism, sagas, gender criticism, immigration studies, national identity—to name only a few. Languages offered in the department include Danish, Finnish, Icelandic, Norwegian, Sámi, and Swedish. The department has an excellent record of placing its Ph.D. graduates in good positions in the field.

ADMISSIONS

Students applying directly for the Ph.D. program should have a related M.A. from this or another program. New Ph.D. students will be expected to acquire competencies equivalent to the M.A. in Scandinavian Studies, and this will be assessed at the time of the preliminary exam.

As in the case of admissions to the M.A. program, applicants should have a B.A. degree from an approved institution, a major in a field of humanities or social studies, and an outstanding record. Applicants are expected to have preparation equivalent to an undergraduate major in Scandinavian studies at UW–Madison, and must either have taken three years of a Scandinavian language or must demonstrate (by examination) equivalent competence in one Scandinavian language or Finnish. A GPA of 3.25 (on a 4.0 scale) is required for admission; students with a GPA below 3.25 but above 3.00 may be considered for admission on probation. All applicants must submit Graduate Record Exam (GRE) scores.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements

of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

The department has a number of scholarships, fellowships, teaching assistantships, and readerships at its disposal and makes a serious effort to provide qualified students with adequate financial assistance and teaching experience throughout their graduate careers.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum 51 credits

Credit Requirement

Minimum 32 credits

Residence Credit Requirement

Minimum Graduate Coursework Requirement Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle>).

Overall 3.25 GPA required.

Graduate GPA Requirement

Other Grade Requirements Ph.D. candidates should maintain a 3.5 GPA in all core curriculum courses.

If a student's grades drop below the average indicated, the GPA must be brought up to the minimum by the end of the following semester.

The grade C is regarded as unsatisfactory.

Incompletes must be removed within the following semester or summer session of residence.

Assessments and Examinations All Ph.D. tracks require a comprehensive written and oral examination.

All tracks require a dissertation.

Language Requirements All tracks require an advanced competency in a modern Scandinavian language. If the modern Scandinavian Language is Finnish or Icelandic, a working knowledge of Norwegian, Swedish, or Danish is required.

For all tracks a minimal competency (e.g., ETS score of 525) in German and another research language approved by the department is required or advanced competency (e.g., and ETS score of 675) in German or another research language.

The philology track requires two semesters of Old Norse or its equivalent. For the literature track a competency in Old Norse is encouraged.

Doctoral Minor/Breadth Requirements All doctoral students are required to complete a minor. All tracks require a doctoral minor of 10–12 credits taken in another field. These courses should be selected in consultation with the candidate's advisor.

REQUIRED COURSES

Each track has specific course requirements to be met.

Literary and Cultural Studies Track ¹

Code	Title	Credits
The following are departmental guidelines for candidates for the PhD degree in literary and cultural studies. Though ultimately everything must be approved by the graduate advisor, these requirements are in addition to the M.A. requirements:		

1. A minimum of 21 credits beyond the M.A. degree. If a student enters the PhD program with an MA from another program, then additional classes may be required in order for the candidate to attain a sufficiently broad background in Scandinavian Studies.		
2. A Ph.D. minor of 10-12 credits in another field.		
Required courses (if not already taken as part of the MA degree – 15-17 credits):		
SCAND ST 401	Contemporary Scandinavian Languages	3
Select one of the following: (3-4 credits)		3-4
SCAND ST/ MEDIEVAL 407	Old Norse	
SCAND ST 429	Mythology of Scandinavia	
SCAND ST/ MEDIEVAL 430	The Vikings	
SCAND ST 435	The Icelandic Sagas	
Select one of the following: (3-4 credits)		3-4
SCAND ST/ HISTORY 431	History of Scandinavia to 1815	
SCAND ST/ HISTORY 432	History of Scandinavia Since 1815	
SCAND ST/ HISTORY 577	Contemporary Scandinavia: Politics and History	
Select one of the following, depending on individual circumstances and determined in consultation with the graduate advisor. (3 credits)		3
SCAND ST 901	Seminar in Special Topics	
SCAND ST 634	Survey of Scandinavian Literature: 1500-1800	
SCAND ST 635	Survey of Scandinavian Literature: 1800-1890	
Select a course that includes professional development. (3 credits)		3
SCAND ST 630	Fundamentals of Bibliography and Research	
GNS 700 Graduate Seminar in Professional Development		
Total Credits:		15-17
Other recommended courses:		
SCAND ST 419	Scandinavian Children's Literature	4
SCAND ST 420	The Woman in Scandinavian Literature	4
SCAND ST 422	The Drama of Henrik Ibsen	4
SCAND ST 423	The Drama of August Strindberg	4
SCAND ST 424	Nineteenth-Century Scandinavian Fiction	3-4
SCAND ST 425	Knut Hamsun and the 20th Century Norwegian Novel	4
SCAND ST 426	Kierkegaard and Scandinavian Literature	4
SCAND ST 427	Contemporary Scandinavian Literature	4
SCAND ST/ LITTRANS 428	Memory and Literature from Proust to Knausgard	3
SCAND ST 433	The Scandinavian Tale and Ballad	4

SCAND ST 434	The Art of Isak Dinesen/Karen Blixen	4
SCAND ST/ FOLKLORE/ MEDIEVAL 446	Celtic-Scandinavian Cultural Interrelations	3
SCAND ST 450	Scandinavian Decadence in its European Context	3-4

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Philology Track ¹

Code	Title	Credits
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The following are departmental guidelines for a philology specialization, though ultimately everything must be approved by the graduate advisor:

1. A minimum of 21 credits beyond the M.A. degree, including at least two seminars. In ordinary circumstances, graduate students entering the program with a B.A. will be required to take the M.A. before they can proceed to the Ph.D.		
2. A Ph.D. minor of 10-12 credits in another field.		

Required courses (if not already taken as part of the MA degree – 18 credits):		
SCAND ST/ MEDIEVAL 407	Old Norse and Old Norse	6
& SCAND ST/ MEDIEVAL 408		
SCAND ST 511	Paleography and Philology - Old Norse	3
Select one of the following (3 credits):		3
SCAND ST 414	History of the Scandinavian Languages I: Proto- to Common Scandinavian	
SCAND ST 415	History of the Scandinavian Languages II: Standard Languages	
SCAND ST 510	Topics in Scandinavian Linguistics	
SCAND ST/ MEDIEVAL 409	Survey of Old Norse-Icelandic Literature	3
Select a course that includes professional development (3 credits):		3
SCAND ST 630	Fundamentals of Bibliography and Research	
GNS 700 Graduate Seminar in Professional Development		
Total Credits:		18

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Folklore Track ¹

Code	Title	Credits
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The following are departmental guidelines for the Ph.D. in Folklore, though ultimately everything must be approved by the graduate advisor:

1. A minimum of 21 credits beyond the M.A. degree (16 in residence), including at least two seminars. In ordinary circumstances, graduate students entering the program with a B.A. will be required to take the M.A. before they can proceed to the Ph.D. In consultation with their advisors, graduate students should select a suite of courses that provide a detailed knowledge of the folklore of one Nordic culture and a general knowledge of Nordic folklore more generally, as well as a firm command of the folklore of Nordic Americans. Familiarity with the history, institutions and cultural history of the Nordic countries is fundamental to the degree.

2. A Ph.D. Option B minor of 10-12 credits in Folklore, including **ONE** of the following courses:

FOLKLORE/L I S 490	Field Methods and the Public Presentation of Folklore	3
FOLKLORE 510	Folklore Theory	3
One course that includes professional development (3 credits):		
SCAND ST 630	Fundamentals of Bibliography and Research	3
GNS 700 Graduate Seminar in Professional Development		
Other Recommended Courses:		
SCAND ST 429	Mythology of Scandinavia	4
SCAND ST/HISTORY 431	History of Scandinavia to 1815	3
SCAND ST/HISTORY 432	History of Scandinavia Since 1815	3
SCAND ST 433	The Scandinavian Tale and Ballad	4
SCAND ST 435	The Icelandic Sagas	4
SCAND ST/FOLKLORE 440	Scandinavian American Folklore	3
SCAND ST/FOLKLORE 443	Sami Culture, Yesterday and Today	4
SCAND ST/MEDIEVAL 444	Kalevala and Finnish Folk-Lore	4
SCAND ST/FOLKLORE/MEDIEVAL 446	Celtic-Scandinavian Cultural Interrelations	3
SCAND ST 496	The Scandinavian Heritage in America	3
Possible Courses of Interest:		
FOLKLORE 320	Folklore of Wisconsin	3
FOLKLORE/RELIG ST 359	Myth	3
FOLKLORE 451	The Supernatural in the Modern World	3
FOLKLORE 460	Folk Epics	3
FOLKLORE/GEN&WS 467	Women and Politics in Popular Culture and Folklore	3
FOLKLORE/ANTHRO 520	Ethnic Representations in Wisconsin	4
FOLKLORE/COM ARTS 522	Digitally Documenting Everyday Communication	3
FOLKLORE/MUSIC 535	American Folk and Vernacular Music	3

FOLKLORE/ANTHRO/MUSIC/THEATRE 539	The Folklore of Festivals and Celebrations	3
FOLKLORE 540	Local Culture and Identity in the Upper Midwest	3
ART HIST 364	History of American Art: Art, Material Culture, and Constructions of Identity, 1607-present	3-4
ART HIST 432	Multiculturalism and the New Museology	3-4
ART HIST 463	Topics in American Material Culture	3-4
ART HIST 601	Introduction to Museum Studies I	3
ENGL/HISTORY/RELIG ST 360	The Anglo-Saxons	3
ENGL/MEDIEVAL 427	Chaucer's Canterbury Tales	3
GEOG 342	Geography of Wisconsin	3
GERMAN 650	History of the German Language	3
GERMAN/MEDIEVAL 651	Introduction to Middle High German	3
GERMAN 701	Literature of the Middle Ages (750-1400)	3
GERMAN/MEDIEVAL 755	Old Germanic Languages	3
HISTORY 359	History of Europe Since 1945	3-4
HISTORY 408	American Labor History: 1900-Present	3-4
HISTORY/SCAND ST 577	Contemporary Scandinavia: Politics and History	3-4
HISTORY 929	Labor and Working Class History in the United States	3
HISTORY/L I S 976	Special Problems in Archives-Manuscripts Administration	3
HISTORY/L I S 977	The Practice of Archives-Manuscripts Administration	3
LAND ARC 677	Cultural Resource Preservation and Landscape History	3
LAND ARC/ANTHRO/ART HIST/DS/HISTORY 764	Dimensions of Material Culture	4
RELIG ST/FOLKLORE 352	Shamanism	3

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the

degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 9 credits of graduate coursework from other institutions. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

With program approval, students are allowed to count no more than 9 credits of coursework numbered 300 or above taken as a UW–Madison University Special student. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

PROBATION

If a student at any time fails to meet the above criteria for satisfactory progress, he/she is placed on probation. If, by the end of the following semester, progress has not been brought to a satisfactory level, a committee of three faculty members will be established to determine whether any circumstance exists that prevent the dropping of the student from the program.

ADVISOR / COMMITTEE

In order to encourage progress toward the degree and to determine the status of a student's program, the department requests an annual activities report from all continuing students to be submitted at the end of January. In the case of first-year students, this report will, of course, only cover work done during the fall semester. A copy of this report will be placed in the student's permanent file. Students are expected to consult regularly on their progress with their advisor.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

The normal time for completing the requirements for the Ph.D. is five to seven semesters beyond the M.A., two of which, normally but not necessarily, are spent in Scandinavia. Ph.D. candidates will spend the last two to three semesters writing the dissertation.

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time. Requests for exceptions, detailing special circumstances, should be submitted to the graduate advisor, who

will then determine whether to seek an extension from the Graduate School.

OTHER

n/a

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Articulates research problems, potentials, and limits with respect to theory, knowledge, or practice within the field of study.
2. Formulates ideas, concepts, and techniques beyond the current boundaries of knowledge within the field of study.
3. Creates research and scholarship that makes a substantive contribution.
4. Demonstrates breadth within their learning experiences.
5. Advances contributions of the field of study to society.
6. Communicates complex ideas in a clear and understandable manner.
7. Possesses an advanced competency in a Nordic language and a serviceable mastery of one or more research languages.
8. Fosters ethical and professional conduct.

PEOPLE

Faculty: Professors Brantly, DuBois, and Wolf; Assistant Professors Andersen and Krouk

SLAVIC LANGUAGES AND LITERATURES, DOCTORAL MINOR

REQUIREMENTS

Graduate students in other departments are invited to minor in the Slavic program, selecting from one of the following tracks.

MINOR TRACK IN POLISH ¹

Contact: Professor Halina Filipowicz (<http://gns.wisc.edu/person/halina-filipowicz>)

12 credits as follows:

Code	Title	Credits
Required		
SLAVIC 302	Zarys historii literatury polskiej ²	3

SLAVIC 470	Historia literatury polskiej do roku 1863	3
SLAVIC 472	Historia literatury polskiej po roku 1863	3
SLAVIC 799	Independent Study	1-6
SLAVIC 331 or SLAVIC 332	Fourth Year Polish I Fourth Year Polish II	3
Total Credits		13-18

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

² Must be taken before any other courses

MINOR TRACK IN SERBO-CROATIAN ¹

Contact: Tomislav Longinovic (<http://gns.wisc.edu/person/tomislav-z-longinovic>)

12 credits as follows:

Code	Title	Credits
SLAVIC 341	First Semester Intensive Serbo-Croatian	3
SLAVIC 342	Uvod u srpsku i hrvatsku literaturu	3
SLAVIC 449	Istorija srpske i hrvatske literature	3
SLAVIC 454	Moderna srpska i hrvatska literatura	3

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

PEOPLE

Faculty: Professors Danaher, Evans-Romaine, Filipowicz, Longinovic, Shevelenko, van de Water; Associate Professors Reynolds; Assistant Professor Zilbergerts; Faculty Associate Tumarkin

SLAVIC LANGUAGES AND LITERATURES, M.A.

Slavic languages and literature at the University of Wisconsin–Madison is a national leader of doctoral programs in the field, and welcomes students with a B.A./B.S. or M.A. who are interested in all areas of Russian and comparative Slavic prose, poetry, drama, and philosophy. The curriculum offers breadth and depth in a variety of areas of Slavic philology, literature, and culture, and is known for offering a balanced approach to training in teaching, writing, and research.

The program is fortunate to count among its faculty, specialists in Czech, Polish, Russian, and Serbo-Croatian languages, literature, and culture, award-winning authors and teachers, and members of editorial boards of leading journals and publication series. Information regarding faculty biographical sketches are available on the program website. In addition to their excellence in teaching and research, professors are unparalleled mentors to graduate students. Students work closely with faculty members on writing, teaching, and publishing. Graduate students are

expected to produce publishable articles during their graduate careers, and are provided the guidance and feedback to do so.

The department places high expectations on graduate students to achieve and maintain professional-level proficiency in the Russian language in all four modalities: speaking, writing, listening, and reading. All students who are not native speakers of Russian will be tested in those modalities—plus Russian grammar—when they enter the program, and periodically throughout their tenure. Appropriate competency must be demonstrated before receiving a teaching assistantship and before passing from M.A. to Ph.D. candidacy.

Graduate students in the program receive exceptional training in teaching both language and literature. The department has a thriving undergraduate program in Slavic languages with strong enrollments in language, literature and culture, providing many opportunities for teaching experience, working closely with master teachers among the faculty and academic staff. In addition to teaching assignments in first- through fourth-semester Russian language (and occasionally in other Slavic languages), as well as in the two-semester undergraduate survey of Russian literature course, the department has also instituted an apprenticeship program for adequately prepared graduate students in the teaching of advanced literature and language classes. The program's graduate teaching assistants regularly win prestigious campus awards for their excellence in the classroom.

The Ph.D. program typically requires three years of coursework, including an introduction to literary theory and a methods course in the teaching of Slavic languages, as well as linguistics courses and the full range of Russian literary and cultural history. An M.A. is conferred after three or four semesters, when all master's requirements are fulfilled. Students accepted to the Ph.D. program with an M.A. in Russian literature earned at another institution may choose to fulfill master's requirements through the passing of a special qualifying examination. All Ph.D. students are also expected to choose a secondary area (minor) in addition to the major in Russian literature. Many choose to minor in a non-Russian Slavic language and literature (Polish or Serbo-Croatian). Other popular minors include English, history, communication arts, second language acquisition, comparative literature, linguistics, philosophy, folklore, and religious studies. The department also requires evidence of reading knowledge of a non-Russian Slavic language (Czech, Polish, or Serbo-Croatian) as well as of French or German before attaining dissertator status. More information regarding coursework may be found on the program website.

Students complete all requirements for dissertator status by the end of their seventh semester. The graduate program was recently revised, including the dissertation process, to allow for graduation with the Ph.D. in six to seven years from the B.A. Students who choose to take a leave of absence for language study may require a longer tenure.

Please note that the Slavic department does not typically award a terminal M.A. degree. Rather, the M.A. is earned as part of studies towards the Ph.D (p. 677). Students who are admitted already holding an M.A. in Slavic from another institution are required to complete a qualifying exam no later than the first semester in residence, or to fulfill all UW–Madison M.A. requirements as well.

ADMISSIONS

This master's program is offered for work leading to the Ph.D. Students may not apply directly for the master's, and should instead see the admissions information for the Ph.D. (p. 677)

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Most students receive funding for multiple years in the form of fellowships, teaching assistantships or project assistantships. These positions include a stipend as well as tuition remission and a generous health plan. Additional hourly employment is also often available. See the program website (http://slavic.lss.wisc.edu/new_web/?q=node/271) and the Graduate School's funding information page (<http://grad.wisc.edu/studentfunding>) for more information.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules.

Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum 30 credits

Credit Requirement

Minimum 30 credits

Residence Credit Requirement

Minimum 66% of degree coursework (20 credits out of 30 total credits) must be in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall 3.6 GPA required.

Graduate GPA Requirement

Other Grade Requirements Students must earn a B or above in all core curriculum coursework.

Assessments and Examinations Passing grades (no lower than AB) on three of the program's six written Foundation examinations in the history of Russian literature (linked to courses SLAVIC 701 Survey of Old Russian Literature, SLAVIC 702 Eighteenth-Century Russian Literature, SLAVIC 703 Foundations in Russian Romanticism, SLAVIC 707 Foundations in Russian Realism (~1840-1890s), SLAVIC 708 Foundation in Russian Modernism (~1890s-1930s), SLAVIC 709 Foundation in Soviet, Emigre, and Post-Soviet Literature (~1930-present)); exams may be taken irrespective of enrollment in the courses.

Passing at least three out of five Russian language proficiency examinations in reading, writing, speaking, listening, and grammar. Passing level for the first four exams: Advanced Low on ACTFL scale; passing score for grammar test: 80%.

A Gateway exercise: the full faculty review of student's progress to date and assessment of potential to succeed in the Ph.D. track is conducted upon the award of the M.A. At least one senior faculty member must express willingness ultimately to serve as dissertation advisor. Students who do not pass Gateway exercise may not continue for Ph.D.

Language Requirements For Russian language proficiency requirements see "Assessments and Examinations."

REQUIRED COURSES

Code	Title	Credits
SLAVIC 800	Proseminar-Slavic Literature and Culture	1

Select at least two of the following:

SLAVIC 801	Slavic Critical Theory and Practice
SLAVIC 802	The Structure of Russian

SLAVIC 803 Introduction to Old Church Slavonic and the History of Russian Literary Language

Two SLAVIC 900 3-credit courses (topics seminars)

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

Students are not allowed to count graduate coursework from other institution to fulfill degree requirements.

UW–Madison Undergraduate

With program approval, up to 7 credits numbered 700 and above taken in the Slavic program while pursuing a UW–Madison undergraduate degree are allowed to count toward the degree. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison University Special

With program approval, students are allowed to count no more than 9 credits of coursework numbered 300 or above taken as a UW–Madison special student. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

A semester GPA below 3.25 will result in the student being placed on academic probation. If a semester GPA of 3.25 is not attained during the subsequent semester of full time enrollment (or 12 credits of enrollment if enrolled part-time) the student may be dismissed from the program or allowed to continue for 1 additional semester based on advisor appeal to the Graduate School.

ADVISOR / COMMITTEE

All students meet with graduate advisor once a semester (in November and April) to discuss their progress and to plan their coursework for the subsequent semester.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their

absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Students are typically admitted with four- to five-year funding guarantees contingent on satisfactory progress and ability to perform assigned responsibilities well. Funding packages combine fellowships, teaching assistantships and project assistantships at the level of at least 33.3%. All such positions include a stipend as well as tuition remission and a generous health plan. Funding beyond the initial guarantee period is often available for one or two years.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. (Critical Thinking and Writing Skills) Demonstrate: analytic, interpretive, and critical thinking skills; knowledge of research protocols; and understanding of the specificity of the literary object as well as its historical and cultural context.
2. Develop broad knowledge of Russian literary history, the major writers and movements, from the origins to the present day. Demonstrate this knowledge in relation to periods and movements, courses in which are offered during their time in the program. These include: Old Russian Literature; 18th-Century Russian Literature; Romanticism (ca. 1790s to 1840s); Realism (ca. 1840s to 1890s); Modernism (ca. 1890s to 1920s); Soviet, Emigre, and Post-Soviet Periods (ca. 1930s to the present).
3. (Language proficiency) Demonstrate Advanced Russian language proficiency on the ACTFL (American Council on the Teaching of Foreign Languages) scale across three modalities (speaking, listening, reading, or writing). Demonstrate advanced knowledge of the structure of contemporary Russian.
4. Recognize and apply principles of ethical and professional conduct in the context of Slavic studies.

PEOPLE

Faculty: Professors Danaher, Evans-Romaine, Filipowicz, Longinovic, Shevelenko, van de Water; Associate Professors Reynolds; Assistant Professor Zilbergerts; Faculty Associate Tumarkin

SLAVIC LANGUAGES AND LITERATURES, PH.D.

Slavic languages and literature at the University of Wisconsin–Madison is a national leader of doctoral programs in the field, and welcomes students with a B.A./B.S. or M.A. who are interested in all areas of

Russian and comparative Slavic prose, poetry, drama, and philosophy. The curriculum offers breadth and depth in a variety of areas of Slavic philology, literature, and culture, and is known for offering a balanced approach to training in teaching, writing, and research.

The program is fortunate to count among its faculty, specialists in Czech, Polish, Russian, and Serbo-Croatian languages, literature, and culture, award-winning authors and teachers, and members of editorial boards of leading journals and publication series. Information regarding faculty biographical sketches are available on the program website. In addition to their excellence in teaching and research, professors are unparalleled mentors to graduate students. Students work closely with faculty members on writing, teaching, and publishing. Graduate students are expected to produce publishable articles during their graduate careers, and are provided the guidance and feedback to do so.

The department places high expectations on graduate students to achieve and maintain professional-level proficiency in the Russian language in all four modalities: speaking, writing, listening, and reading. All students who are not native speakers of Russian will be tested in those modalities—plus Russian grammar—when they enter the program, and periodically throughout their tenure. Appropriate competency must be demonstrated before receiving a teaching assistantship and before passing from M.A. to Ph.D. candidacy.

Graduate students in the program receive exceptional training in teaching both language and literature. The department has a thriving undergraduate program in Slavic languages with strong enrollments in language, literature and culture, providing many opportunities for teaching experience, working closely with master teachers among the faculty and academic staff. In addition to teaching assignments in first- through fourth-semester Russian language (and occasionally in other Slavic languages), as well as in the two-semester undergraduate survey of Russian literature course, the department has also instituted an apprenticeship program for adequately prepared graduate students in the teaching of advanced literature and language classes. The program's graduate teaching assistants regularly win prestigious campus awards for their excellence in the classroom.

The Ph.D. program typically requires three years of coursework, including an introduction to literary theory and a methods course in the teaching of Slavic languages, as well as linguistics courses and the full range of Russian literary and cultural history. An M.A. is conferred after three or four semesters, when all master's requirements are fulfilled. Students accepted to the Ph.D. program with an M.A. in Russian literature earned at another institution may choose to fulfill master's requirements through the passing of a special qualifying examination. All Ph.D. students are also expected to choose a secondary area (minor) in addition to the major in Russian literature. Many choose to minor in a non-Russian Slavic language and literature (Polish or Serbo-Croatian). Other popular minors include English, history, communication arts, second language acquisition, comparative literature, linguistics, philosophy, folklore, and religious studies. The department also requires evidence of reading knowledge of a non-Russian Slavic language (Czech, Polish, or Serbo-Croatian) as well as of French or German before attaining dissertator status. More information regarding coursework may be found on the program website.

Students complete all requirements for dissertator status by the end of their seventh semester. The graduate program was recently revised, including the dissertation process, to allow for graduation with the Ph.D.

in six to seven years from the B.A. Students who choose to take a leave of absence for language study may require a longer tenure.

ADMISSIONS

For admission to the graduate program, the Slavic department requires the equivalent of a B.A. degree in Russian and a GPA of at least 3.0 on a 4.0 scale. Students who have carried out graduate work at another institution must have a graduate GPA of 3.25. Official GRE and TOEFL (where applicable) scores are required.

Experience has shown that students who have spent at least a semester studying in Russia are best prepared to carry on graduate-level study in Russian. Students who are admitted with deficiencies, especially in Russian, are required to make up such deficiencies.

Note that we do not ordinarily admit students seeking a terminal M.A. Prospective students who are interested in a terminal master's degree are encouraged to consider the interdisciplinary master's degree in Russian, East European, and Central Asian Studies (REECAS) through the Center for Russia, Eastern Europe and Central Asia (CREECA).

Applications for admission to the graduate program in Russian literature are accepted at any time, but only complete applications received by January 2 will be considered for fellowships and other forms of funding for the following fall semester. More information regarding graduate program admission may be found on the program website (http://slavic.lss.wisc.edu/new_web/?q=node/266).

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Most students receive funding for multiple years in the form of fellowships, teaching assistantships or project assistantships. These positions include a stipend as well as tuition remission and a generous health plan. Additional hourly employment is also often available. See the program website (http://slavic.lss.wisc.edu/new_web/?q=node/271) and the Graduate School's funding information page (<http://grad.wisc.edu/studentfunding>) for more information.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 51 credit (including Master's credits, but excluding dissertator credits)

Minimum Residence Credit Requirement 51 credit (including master's credits, but excluding dissertator credits)

Requirement For students who completed their M.A. degree at another institution and who confirmed their M.A. degree in the department by passing a qualifying examination during their first semester of study: 36 credits (excluding dissertator credits).

Minimum Graduate Coursework Requirement 66% of degree coursework (34 credits out of 51 total credits) must be in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle>).

Overall Graduate GPA Requirement 3.6 GPA required

Other Grade Requirements Students should maintain a 3.6 GPA in all core curriculum courses and may not have any more than two Incompletes on their record at any one time.

Assessments and Examinations Passing grades (no lower than AB) on all six written Foundation examinations in the history of Russian literature by the end of the sixth semester of coursework, counting from the start of M.A. program (see M.A. requirements for details). For students admitted with M.A. degree same requirements need to be fulfilled by the end of their fourth semester.

Passing all five Russian language proficiency examinations (see M.A. requirements for details) by the end of the sixth semester (end of the fourth semester for students admitted with M.A. degree).

Review of a capstone dossier (all six Foundation examinations and two major seminar papers) by the graduate faculty in the beginning of the seventh semester in the program (fifth semester for students admitted with M.A. degree).

Passing oral examination (defense of a dissertation proposal) by the end of the seventh semester in the program (fifth semester for students admitted with M.A. degree).

Defense of Ph.D. dissertation.

Language Requirements For Russian language proficiency requirements see "Assessments and Examinations."

Reading knowledge of French or German must be demonstrated through examination.

Reading knowledge of a second Slavic language (Polish, Czech, or Serbo-Croatian) must be demonstrated through coursework (a minimum of two semesters of intensive instruction in Polish, Czech, or Serbo-Croatian) or examination.

Doctoral Minor/Breadth Requirements All doctoral students are required to complete a minor.

REQUIRED COURSES

In addition to courses taken toward the M.A. (p. 676):

Code	Title	Credits
SLAVIC 803	Introduction to Old Church Slavonic and the History of Russian Literary Language	2

Select one of the following (see M.A. requirements):

SLAVIC 801	Slavic Critical Theory and Practice
SLAVIC 802	The Structure of Russian
SLAVIC 804	Methods of Teaching Slavic Languages

Select one SLAVIC 900 3-credit course (topics seminar)

Students admitted with M.A. degree from another institution take three SLAVIC 900 Seminar: Slavic Literature and Culture 3-credit topics seminars; SLAVIC 800 Proseminar-Slavic Literature and Culture and SLAVIC 804 Methods of Teaching Slavic Languages; and SLAVIC 801

Slavic Critical Theory and Practice, SLAVIC 802 The Structure of Russian, SLAVIC 803 Introduction to Old Church Slavonic and the History of Russian Literary Language—unless they can test out by demonstrating competence in respective areas based on passed graduate coursework.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

Students are generally not allowed to count graduate coursework from other institution to fulfill degree requirements. Exceptions are students who are admitted to pursue a Ph.D. degree after completing their M.A. degree at another institution, and who confirmed their M.A. degree in the department by passing a qualifying examination. For such students, up to 15 credits of M.A. coursework counts toward Ph.D. degree requirements. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

With program approval, up to 7 credits numbered 700 and above taken in the Slavic department while pursuing a UW–Madison undergraduate degree are allowed to count toward the degree. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison University Special

With program approval, students are allowed to count no more than 9 credits of coursework numbered 300 or above taken as a UW–Madison special student. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

PROBATION

A semester GPA below 3.25 will result in the student being placed on academic probation. If a semester GPA of 3.25 is not attained during the subsequent semester of full time enrollment (or 12 credits of enrollment if enrolled part-time) the student may be dismissed from the program or allowed to continue for 1 additional semester based on advisor appeal to the Graduate School.

ADVISOR / COMMITTEE

Prior to being admitted to candidacy, all students meet with graduate advisor once a semester (in November and April) to

discuss their progress and to plan their coursework for the subsequent semester.

No later than by the end of their sixth semester students choose their dissertation advisor.

After being admitted to candidacy, all students are required to submit brief written yearly progress reports to their thesis committee by the end of January.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Students must fulfill all coursework requirements and pass oral examination by the end of the seventh semester in the program (fifth semester for students admitted with M.A. degree).

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Students are typically admitted with four- to five-year funding guarantees contingent on satisfactory progress and ability to perform assigned responsibilities well. Funding packages combine fellowships, teaching assistantships and project assistantships at the level of at least 33.3%. All such positions include a stipend as well as tuition remission and a generous health plan. Funding beyond the initial guarantee period is often available for one or two years.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. (Critical Thinking and Writing Skills) Demonstrate: analytic, interpretative, and critical thinking skills; knowledge of research protocols; and understanding of the specificity of the literary object as well as its historical and cultural context.

2. (Literature) Develop comprehensive knowledge of Russian literary history, the major writers and movements, from the origins to the present day. Demonstrate this knowledge in relation to the following periods and movements: Old Russian Literature; 18th-Century Russian Literature; Romanticism (ca. 1790s to 1840s); Realism (ca. 1840s to 1890s);

Modernism (ca. 1890s to 1920s); Soviet, Emigre, and Post-Soviet Periods (ca. 1930s to the present).

3. (Language proficiency) Demonstrate Advanced Russian language proficiency on the ACTFL (American Council on the Teaching of Foreign Languages) scale across all modalities (speaking, listening, reading, writing). Demonstrate advanced knowledge of the structure of contemporary Russian. Develop, at minimum, reading proficiency in languages essential for research in the field, including a second Slavic language and either French or German.

4. (Ph.D. Minor) Demonstrate intellectual breadth and the ability to synthesize cross-cultural and interdisciplinary perspectives through the completion of a doctoral minor.

5. (Ph.D. Dissertation) A successful Ph.D. candidate will have written a dissertation that synthesizes knowledge of relevant disciplines and develops it to create an original contribution to scholarship. The candidate will be able to present the results of her or his research both to experts in the field as well as to a wider public.

6. (Teacher-Trainer) Demonstrate, both in theory and through instructional practice, foundational knowledge of second-language teaching, including the concepts of proficiency-oriented instruction and communicative language teaching; principles behind the design, integration, and delivery of classroom instruction and appropriate assessment instruments for all four modalities (speaking, listening, reading, writing), structure, and culture.

7. Recognize, apply, and foster principles of ethical and professional conduct in the context of Slavic studies.

PEOPLE

Faculty: Professors Danaher, Evans-Romaine, Filipowicz, Longinovic, Shevelenko, van de Water; Associate Professors Reynolds; Assistant Professor Zilbergerts; Faculty Associate Tumarkin

GRADUATE - SCHOOL-WIDE

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Biophysics, Doctoral Minor (p. 681)
- Biophysics, M.S. (p. 682)
- Biophysics, Ph.D. (p. 686)
- Cellular and Molecular Biology, M.S. (p. 690)
- Cellular and Molecular Biology, Ph.D. (p. 693)
- Distributed, Doctoral Minor (p. 697)
- Special Graduate Committee, M.A. (p. 698)
- Special Graduate Committee, M.S. (p. 699)
- Special Graduate Committee, Ph.D. (p. 699)

BIOPHYSICS, DOCTORAL MINOR

Students enrolled in a UW–Madison doctoral program can pursue a doctoral minor in biophysics. The doctoral minor offers substantial

training in biophysics. A doctoral minor in biophysics can serve as supplement to training in a broad range of disciplines in which physics, physical chemistry, biology, and medicine intersect. The biophysics minor will give students a rigorous understanding of quantitative approaches to physical and chemical problems in the life sciences. Course offerings that provide pedagogical instruction to biophysics students serve as the basis for the biophysics minor.

REQUIREMENTS

Code	Title	Credits
Required Courses		
CHEM/ BIOCHEM 665	Biophysical Chemistry	4
CHEM 668	Biophysical Spectroscopy	2-3
Elective Course		
Students choose one or more of the following or any course used to satisfy elective requirements for the Biophysics Ph.D.:		
BIOCHEM 601	Protein and Enzyme Structure and Function	
BIOCHEM/ GENETICS/ MICROBIO 612	Prokaryotic Molecular Biology	
BIOCHEM/ GENETICS/ MD GENET 620	Eukaryotic Molecular Biology	
NTP/ NEURODPT 610	Cellular and Molecular Neuroscience	
Total Credits		9-10

PEOPLE

Faculty:

Chair: Professor Meyer Jackson (Neuroscience Department) Website (<https://neuro.wisc.edu/staff/jackson-meyer>)

Paul Ahlquist (Oncology) Website (<https://mcardle.wisc.edu/who-we-are/mcardle-faculty/paul-g-ahlquist-phd>)

Tom Brunold (Chemistry) Website (<http://brunold.chem.wisc.edu>)

Judith Burstyn (Chemistry) Website (<http://burstyn.chem.wisc.edu>)

Sam Butcher (Biochemistry) Website (<https://biochem.wisc.edu/faculty/butcher>)

Silvia Cavagnero (Chemistry) Website (<http://cavagnero.chem.wisc.edu>)

Baron Chanda (Neuroscience) Website (<http://bclab.neuro.wisc.edu>)

Ed Chapman (Neuroscience) Website (<https://chapman.neuro.wisc.edu>)

Gheorghe Craciun (Mathematics) Website (<http://www.math.wisc.edu/~craciun>)

Cindy Czajkowski (Neuroscience) Website (<https://neuro.wisc.edu/staff/czajkowski-cynthia>)

Katrina Forest (Bacteriology) Website (https://bact.wisc.edu/people_profile.php?t=rf&p=kforres1)

Brian Fox (Biochemistry) Website (<https://biochem.wisc.edu/faculty/fox/default.aspx>)

Sam Gellman (Chemistry) Website (<http://gellman.chem.wisc.edu>)

Pupa Gilbert (Physics)

Randy Goldsmith (Chemistry) Website (<https://goldsmith.chem.wisc.edu>)

Jeff Hardin (Zoology) Website (<http://worms.zoology.wisc.edu>)

Katie Henzler-Wildman (Biochemistry) Website (<https://biochem.wisc.edu/faculty/henzler-wildman>)

Hazel Holden (Biochemistry) Website (<https://biochem.wisc.edu/faculty/holden/default.aspx>)

Aaron Hoskins (Biochemistry) Website (<https://biochem.wisc.edu/faculty/hoskins/default.aspx>)

Mathew Jones (Neuroscience) Website (<https://neuro.wisc.edu/staff/jones-mathew-2>)

Jim Keck (Biomolecular Chemistry) Website (<https://bmolchem.wisc.edu/staff/keck-james>)

Bob Landick (Biochemistry) Website (<https://landick.wisc.edu>)

John Markley (Biochemistry) Website (<https://biochem.wisc.edu/faculty/markley>)

Megan McClean (Biomedical Engineering) Website (<http://mccleanlab.bme.wisc.edu>)

Matthew Merrins (Biomolecular Chemistry)

Julie Mitchell (Mathematics) Website (<https://biochem.wisc.edu/faculty/mitchell/default.aspx>)

Regina Murphy (Chemical and Biological Engineering) Website (<http://murphygroup.che.wisc.edu>)

Vatsan Raman (Biochemistry) Website (<https://biochem.wisc.edu/faculty/raman>)

Ivan Rayment (Biochemistry) Website (<https://biochem.wisc.edu/faculty/rayment/default.aspx>)

Tom Record (Biochemistry) Website (<https://biochem.wisc.edu/faculty/record>)

Gail Robertson (Neuroscience) Website (<https://neuro.wisc.edu/staff/robertson-gail>)

Phil Romero (Biochemistry) Website (<https://biochem.wisc.edu/faculty/romero>)

Kris Saha (Biomedical Engineering) Website (<http://sahalab.bme.wisc.edu>)

David Schwartz (Chemistry) Website (<https://www.chem.wisc.edu/users/schwartz>)

Alessandro Senes (Biochemistry) Website (<https://biochem.wisc.edu/faculty/senes/default.aspx>)

Nate Sherer (Oncology) Website (<https://mcardle.wisc.edu/who-we-are/faculty/nathan-m-sherer-phd>)

Melissa Skala (Biomedical Engineering) Website (<https://morgridge.org/research/medical-engineering/multiscale-imaging>)

Lloyd Smith (Chemistry) Website (<https://www.chem.wisc.edu/users/smith>)

Daniel van der Weide (Electrical and Computer Engineering) Website (<http://vdw.ece.wisc.edu>)

Reid Van Lehn (Chemical and Biological Engineering) Website (<http://vanlehngroup.che.wisc.edu>)

Ophelia Venturelli (Biochemistry) Website (<https://biochem.wisc.edu/faculty/venturelli>)

Doug Weibel (Biochemistry) Website (<https://biochem.wisc.edu/faculty/weibel/default.aspx>)

James Weisshaar (Chemistry) Website (<https://www.chem.wisc.edu/users/weisshaar>)

Yongna Xing (Oncology): Website (<https://mcardle.wisc.edu/who-we-are/mcardle-faculty/yongna-xing-phd>)

John Yin (Chemical and Biological Engineering) Website (<https://yin.discovery.wisc.edu>)

BIOPHYSICS, M.S.

Students are not admitted into the Biophysics Program for a terminal master's degree. However, a master's degree is officially offered. For more information, see the Biophysics Handbook (<http://www.biophysics.wisc.edu/handbook>).

The doctor of philosophy degree with a major in biophysics is an interdepartmental offering under the supervision of the biophysics program committee. The biophysics degree is intended for those who wish to emphasize physical principles and methods in solving biological problems. By necessity, the interdisciplinary nature of biophysics generates interaction among, and expands the boundaries of, traditional areas of science. Persons with strong training in biophysics can be expected to be major innovators and contributors in research and applied technology. Biophysics graduates pursue careers in academic, industrial, and government research, and in teaching and administration.

The biophysics program consists of 44 faculty members from 14 departments that span four colleges within the university. State-of-the-art facilities are available within the biophysics program for research in x-ray crystallography, nuclear magnetic-resonance spectroscopy, electron resonance spectroscopy, fluorescence spectroscopy, microscopy and imaging, and computational chemistry. Graduate students in biophysics can choose from an expansive range of research topics including, but not limited to, biomolecular structure and function interactions, protein engineering and biotechnology, virus structure and function, enzyme catalysis and kinetics, membranes, neurochemistry, and electrophysiology.

The program is flexible in its formal course requirements and emphasizes excellence in research. The candidate is encouraged to begin research as quickly as possible, since it is research experience that brings focus and meaning to classroom studies, and research progress that empowers

critical judgment and self-confidence for independent work. To enhance self-confidence, students are expected to participate in weekly seminars and to present a seminar.

Financial assistance is available to support qualified graduate students throughout their graduate studies. Types of graduate appointments that may be awarded include research assistantships, fellowships, and traineeships. The stipends awarded provide financial support to students during their graduate work, permitting them to devote their efforts to coursework and research. In recognition of the leadership provided by scientists and researchers at University of Wisconsin–Madison, the National Institutes of Health (NIH) have funded a predoctoral training grant in molecular biophysics for the past consecutive 20 years.

ADMISSIONS

This master's program is offered for work leading to the Ph.D. Students may not apply directly for the master's, and should instead see the admissions information for the Ph.D (p. 686).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely

online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement	30 credits
Minimum Residence Credit Requirement	16 credits
Minimum Graduate Coursework Requirement	Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (https://registrar.wisc.edu/course-guide/).
Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	Any grade of BC or lower will not count toward the Biophysics core course requirement. If a student receives a BC or lower, the student must repeat the course in order to receive a higher grade. The student may also substitute to course for an alternate core course with approval from the Biophysics Steering Committee.
Assessments and Examinations	Students take two rounds of exams in order to achieve dissertator status. At the end of students' second year, they are required to take their written preliminary exam. Once this exam is passed, students must take their preliminary exam by the end of their third year.
Language Requirements	No language requirements.

REQUIRED COURSES

Students must take the same courses as are required for the biophysics Ph.D.:

Code	Title	Credits
Required by the time oral prelim is taken:		
BIOCHEM/ CHEM 665	Biophysical Chemistry	4
CHEM 668	Biophysical Spectroscopy ¹	2-3

Students must take at least 2 additional classes from different categories from the following list of classes (alternative classes may be substituted with approval from the Biophysics Program Steering Committee):

Structure

BIOCHEM 601	Protein and Enzyme Structure and Function
BIOCHEM/B M I/ BMOLCHEM/ MATH 606	Mathematical Methods for Structural Biology
BIOCHEM 625	Mechanisms of Action of Vitamins and Minerals

Modeling

CHEM 661	Chemical and Statistical Thermodynamics
MATH/B M I/ BIOCHEM/ BMOLCHEM 609	Mathematical Methods for Systems Biology

Molecular Biology

BIOCHEM/ GENETICS/ MICROBIO 612	Prokaryotic Molecular Biology
BIOCHEM/ GENETICS/ MD GENET 620	Eukaryotic Molecular Biology

Neuroscience

NTP/ NEURODPT 610	Cellular and Molecular Neuroscience
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Spectroscopy/Microscopy

B M E/ANATOMY/ MED PHYS/ PHMCOL-M/ PHYSICS/ RADIOL 619	Microscopy of Life
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Additional Courses

BIOCHEM 729	Advanced Topics (Ethics) ²	1-3
CHEM/ BIOCHEM 872	Selected Topics in Macromolecular and Biophysical Chemistry ³	1-3
990 Seminar ⁴		

- ¹ Because CHEM 668 Biophysical Spectroscopy is only offered every other year, students will be advised upon joining the program in which semester they must complete the course.
- ² Students are also required to take an ethics course that covers all of the items considered necessary by the NIH for ethical and professional scientific training. It is strongly recommended that students take the ethics course during their first year. The recommended ethics course is: BIOCHEM 729 Advanced Topics. The Biophysics Program also conducts a mandatory ethics refresher seminar for all students that is held at the end of every spring semester.
- ³ Additionally, students are required to participate in seminar courses for the duration of their studies. Initially, all students are required to enroll in CHEM/BIOCHEM 872 Selected Topics in Macromolecular and Biophysical Chemistry for both fall and spring semesters. Once a student has successfully achieved dissertator status, they are eligible to enroll in alternative seminars with permission from the program.
- ⁴ Finally, all students are expected to register for 990 research credits every semester. These are the courses in which students will be conducting their independent research. First semester students will register for 990 research credits in the department of the Biophysics Program Chair, Meyer Jackson. Once a thesis lab is chosen, these credits will be conducted in the thesis advisor's home department.

POLICIES**GRADUATE SCHOOL POLICIES**

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES**GRADUATE PROGRAM HANDBOOK**

The Graduate Program Handbook (<http://www.biophysics.wisc.edu/handbook>) is the repository for all of the program's policies and requirements.

Prior Coursework**Graduate Work from Other Institutions**

With program approval, students are allowed to count no more than 9 credits of graduate coursework from other institutions. Coursework earned more than two years prior to admission to the doctoral degree is not allowed to satisfy requirements. No admissions are made into the master's program.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

With program approval, students are allowed to count no more than 9 credits of coursework numbered 300 or above taken as a UW–Madison Special student. Coursework earned more than two years prior to admission to the doctoral degree is not allowed to satisfy requirements. No admissions are made into the master's program.

PROBATION

If students fall below the 3.00 GPA program requirement or have incomplete grades, the biophysics program follows the Graduate School's policy of satisfactory/unsatisfactory progress. This could result in academic probation or suspension.

ADVISOR / COMMITTEE

All students are required to have an advisor by the end of their first semester in the program. Thesis committees must be formed prior to their preliminary exam. The committee consists of at least four other faculty members and the student's advisor. After gaining dissertator status, students are required to hold yearly progress report meetings with their committee until graduation.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements;

that coursework may not count toward Graduate School credit requirements.

OTHER

Fall semester enrollment only. First semester, program-sponsored lab rotations lead to thesis lab selection and research assistantship through the thesis advisor.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Articulates, critiques, or elaborates the theories, research methods, and approaches to inquiry or schools of practice in the field of study.
2. Identifies sources and assembles evidence pertaining to questions or challenges in the field of study.
3. Understands the primary field of study in a historical, social or global context.
4. Selects and/or utilizes the most appropriate methodologies and practices.
5. Evaluates or synthesizes information pertaining to questions or challenges in the field of study.
6. Communicates clearly in ways appropriate to the field of study.
7. Recognizes and applies principles of ethical conduct.

PEOPLE

Faculty:

- Chair: Professor Meyer Jackson (Neuroscience Department) Website (<https://neuro.wisc.edu/staff/jackson-meyer>)
- Paul Ahlquist (Oncology) Website (<https://mcardle.wisc.edu/who-we-are/mcardle-faculty/paul-g-ahlquist-phd>)
- Tom Brunold (Chemistry) Website (<http://brunold.chem.wisc.edu>)
- Judith Burstyn (Chemistry) Website (<http://burstyn.chem.wisc.edu>)
- Sam Butcher (Biochemistry) Website (<https://biochem.wisc.edu/faculty/butcher>)
- Silvia Cavagnero (Chemistry) Website (<http://cavagnero.chem.wisc.edu>)
- Baron Chanda (Neuroscience) Website (<http://bclab.neuro.wisc.edu>)
- Ed Chapman (Neuroscience) Website (<https://chapman.neuro.wisc.edu>)
- Gheorghe Craciun (Mathematics) Website (<http://www.math.wisc.edu/~craciun>)
- Cindy Czajkowski (Neuroscience) Website (<https://neuro.wisc.edu/staff/czajkowski-cynthia>)
- Katrina Forest (Bacteriology) Website (https://bact.wisc.edu/people_profile.php?t=rf&p=kforres1)
- Brian Fox (Biochemistry) Website (<https://biochem.wisc.edu/faculty/fox/default.aspx>)
- Sam Gellman (Chemistry) Website (<http://gellman.chem.wisc.edu>)
- Pupa Gilbert (Physics)
- Randy Goldsmith (Chemistry) Website (<https://goldsmith.chem.wisc.edu>)
- Jeff Hardin (Zoology) Website (<http://worms.zoology.wisc.edu>)
- Katie Henzler-Wildman (Biochemistry) Website (<https://biochem.wisc.edu/faculty/henzler-wildman>)
- Hazel Holden (Biochemistry) Website (<https://biochem.wisc.edu/faculty/holden/default.aspx>)
- Aaron Hoskins (Biochemistry) Website (<https://biochem.wisc.edu/faculty/hoskins/default.aspx>)
- Mathew Jones (Neuroscience) Website (<https://neuro.wisc.edu/staff/jones-mathew-2>)
- Jim Keck (Biomolecular Chemistry) Website (<https://bmolchem.wisc.edu/staff/keck-james>)
- Bob Landick (Biochemistry) Website (<https://landick.wisc.edu>)
- John Markley (Biochemistry) Website (<https://biochem.wisc.edu/faculty/markley>)
- Megan McClean (Biomedical Engineering) Website (<http://mccleanlab.bme.wisc.edu>)
- Matthew Merrins (Biomolecular Chemistry)
- Julie Mitchell (Mathematics) Website (<https://biochem.wisc.edu/faculty/mitchell/default.aspx>)
- Regina Murphy (Chemical and Biological Engineering) Website (<http://murphygroup.che.wisc.edu>)
- Vatsan Raman (Biochemistry) Website (<https://biochem.wisc.edu/faculty/raman>)
- Ivan Rayment (Biochemistry) Website (<https://biochem.wisc.edu/faculty/rayment/default.aspx>)
- Tom Record (Biochemistry) Website (<https://biochem.wisc.edu/faculty/record>)
- Gail Robertson (Neuroscience) Website (<https://neuro.wisc.edu/staff/robertson-gail>)
- Phil Romero (Biochemistry) Website (<https://biochem.wisc.edu/faculty/romero>)
- Kris Saha (Biomedical Engineering) Website (<http://sahalab.bme.wisc.edu>)
- David Schwartz (Chemistry) Website (<https://www.chem.wisc.edu/users/schwartz>)

Alessandro Senes (Biochemistry) Website (<https://biochem.wisc.edu/faculty/senes/default.aspx>)

Nate Sherer (Oncology) Website (<https://mcardle.wisc.edu/who-we-are/faculty/nathan-m-sherer-phd>)

Melissa Skala (Biomedical Engineering) Website (<https://morgridge.org/research/medical-engineering/multiscale-imaging>)

Lloyd Smith (Chemistry) Website (<https://www.chem.wisc.edu/users/smith>)

Daniel van der Weide (Electrical and Computer Engineering) Website (<http://vdw.ece.wisc.edu>)

Reid Van Lehn (Chemical and Biological Engineering) Website (<http://vanlehngroup.che.wisc.edu>)

Ophelia Venturelli (Biochemistry) Website (<https://biochem.wisc.edu/faculty/venturelli>)

Doug Weibel (Biochemistry) Website (<https://biochem.wisc.edu/faculty/weibel/default.aspx>)

James Weisshaar (Chemistry) Website (<https://www.chem.wisc.edu/users/weisshaar>)

Yongna Xing (Oncology): Website (<https://mcardle.wisc.edu/who-we-are/mcardle-faculty/yongna-xing-phd>)

John Yin (Chemical and Biological Engineering) Website (<https://yin.discovery.wisc.edu>)

BIOPHYSICS, PH.D.

The doctor of philosophy degree with a major in biophysics is an interdepartmental offering under the supervision of the Biophysics Graduate Degree Program. The biophysics degree is intended for those who wish to emphasize physical principles and methods in solving biological problems. By necessity, the interdisciplinary nature of biophysics generates interaction among, and expands the boundaries of, traditional areas of science. Persons with strong training in biophysics can be expected to be major innovators and contributors in research and applied technology. Biophysics graduates pursue careers in academic, industrial, and government research, and in teaching and administration.

The Biophysics Program consists of approximately 45 faculty members from 14 departments that span four colleges within the university. State-of-the-art facilities are available within the Biophysics Program for research in x-ray crystallography, nuclear magnetic-resonance spectroscopy, electron resonance spectroscopy, fluorescence spectroscopy, microscopy and imaging, and computational chemistry. Graduate students in biophysics can choose from an expansive range of research topics including, but not limited to, biomolecular structure and function interactions, protein engineering and biotechnology, virus structure and function, enzyme catalysis and kinetics, membranes, neurochemistry, and electrophysiology.

The program is flexible in its formal course requirements and emphasizes excellence in research. The candidate is encouraged to begin research as quickly as possible, since it is research experience that brings focus and meaning to classroom studies, and research progress that empowers critical judgment and self-confidence for independent work. To enhance

self-confidence, students are expected to participate in weekly seminars and to present a seminar.

Financial assistance is available to support qualified graduate students throughout their graduate studies. Types of graduate appointments that may be awarded include research assistantships, fellowships, and traineeships. The stipends awarded provide financial support to students during their graduate work, permitting them to devote their efforts to coursework and research. In recognition of the leadership provided by scientists and researchers at University of Wisconsin–Madison, the National Institutes of Health (NIH) have funded a predoctoral training grant in molecular biophysics for the past consecutive 20 years.

For more information, see the Biophysics Handbook (<http://www.biophysics.wisc.edu/handbook>).

ADMISSIONS

Undergraduate preparation for the Biophysics Program can vary widely and will be evaluated by the admissions committee on an individual basis. Most applicants have taken courses in general, organic, and physical chemistry; introductory physics; cell and/or molecular biology; calculus through differential equations; and computer sciences. Students can generally make up any deficiencies in their undergraduate background within the first year of graduate study through a broad and flexible course curriculum. The normal undergraduate course prerequisites are:

- two semesters of physics with calculus
- two semesters of calculus
- two semesters of organic chemistry
- one semester of physical chemistry
- one semester of computer sciences
- one semester of statistics
- introduction to biology

Exceptions to these requirements may be granted for incoming biophysics graduate students who otherwise have strong undergraduate training in physics, mathematics, computer sciences, biology, chemistry, or other fields related to biophysics. In such cases, each missing required course will be counted as a deficiency that the student must correct by obtaining a passing grade in an equivalent undergraduate or graduate course taken within the first two years of graduate study.

In addition, it is recommended for entering graduate students to have taken undergraduate courses in general biochemistry; general genetics and/or molecular biology; and biophysical chemistry. Students who have not taken courses in these subjects will be expected to do so as part of their formal graduate coursework.

Admission to the biophysics Ph.D. program is highly competitive. A committee of biophysics faculty trainers reviews each application and invites selected students for personal interviews in February. Outstanding international students will be offered video-conferencing interviews with members of the admissions committee. Final admissions decisions are made after all interviews are completed. An application for admission consists of:

1. A resume or CV

2. A personal statement that discusses a candidate's reasoning for pursuing a biophysics Ph.D. What initially drew you to the field? How will earning a Ph.D. help you accomplish your goals?

3. An official transcript of coursework from all undergraduate institutions attended

4. Three or more letters of recommendation

5. A report from the Educational Testing Service of scores received on the required GRE General Test

6. A report, if appropriate, of scores received on the TOEFL English language proficiency exam or an appropriate alternative (IELTS, MELAB)

The admissions committee highly weighs the personal statement and letters of recommendation when reviewing applicants. GPA values are evaluated to ensure they meet minimum graduate school requirements (<https://grad.wisc.edu/apply/requirements>).

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

The Biophysics Graduate Degree Program offers stipends in the form of traineeships or research assistantships to all Ph.D. candidates, and assists those with outstanding records in competing for University and national awards (fellowships). The program guarantees a full stipend (\$27,000 for 2017–18) for all its Ph.D. candidates who remain in good standing in the program. In addition to the stipend, all students receive tuition remission and are eligible for comprehensive health insurance.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 51 credits

Minimum Residence Credit Requirement 32 credits

Minimum Graduate Coursework Requirement Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements Any grade of BC or lower will not count toward the Biophysics core course requirement. If a student receives a BC or lower, the student must repeat the course in order to receive a higher grade.

Assessments and Examinations Students take two rounds of exams in order to achieve dissertator status. At the end of students' second year, they are required to take their written preliminary exam. Once this exam is passed, students must take their oral preliminary exam by the end of their third year.

Language Requirements No language requirements.

Doctoral Minor/Breadth Requirements No minor required.

Required Courses

Code	Title	Credits
Required by the time oral prelim is taken:		
BIOCHEM/ CHEM 665	Biophysical Chemistry	4
CHEM 668	Biophysical Spectroscopy ¹	2-3
Students must take at least 2 additional classes from different categories from the following list of classes (alternative classes may be substituted with approval from the Biophysics Program Steering Committee):		
<i>Structure</i>		
BIOCHEM 601	Protein and Enzyme Structure and Function	
BIOCHEM/B M I/ BMOLCHEM/ MATH 606	Mathematical Methods for Structural Biology	
BIOCHEM 625	Mechanisms of Action of Vitamins and Minerals	
<i>Modeling</i>		
CHEM 661	Chemical and Statistical Thermodynamics	
MATH/B M I/ BIOCHEM/ BMOLCHEM 609	Mathematical Methods for Systems Biology	
<i>Molecular Biology</i>		
BIOCHEM/ GENETICS/ MICROBIO 612	Prokaryotic Molecular Biology	
BIOCHEM/ GENETICS/ MD GENET 620	Eukaryotic Molecular Biology	
<i>Neuroscience</i>		
NTP/ NEURODPT 610	Cellular and Molecular Neuroscience	
<i>Spectroscopy/Microscopy</i>		
B M E/ANATOMY/ MED PHYS/ PHMOL-M/ PHYSICS/ RADIOL 619	Microscopy of Life	
Additional Courses		
BIOCHEM 729	Advanced Topics (Ethics) ²	1-3
CHEM/ BIOCHEM 872	Selected Topics in Macromolecular and Biophysical Chemistry ³	1-3
990 Seminar ⁴		

¹ Because CHEM 668 Biophysical Spectroscopy is only offered every other year, students will be advised upon joining the program in which semester they must complete the course.

² Students are also required to take an ethics course that covers all of the items considered necessary by the NIH for ethical and professional scientific training. It is strongly recommended that students take the ethics course during their first year. The recommended ethics course is: BIOCHEM 729 Advanced Topics. The Biophysics Program also conducts a mandatory ethics refresher seminar for all students that is held at the end of every spring semester.

³ Additionally, students are required to participate in seminar courses for the duration of their studies. Initially, all students are required to enroll in CHEM/BIOCHEM 872 Selected Topics in Macromolecular and Biophysical Chemistry for both fall and spring semesters. Once a student has successfully achieved dissertator status, they are eligible to enroll in alternative seminars with permission from the program.

⁴ Finally, all students are expected to register for 990 research credits every semester. These are the courses in which students will be conducting their independent research. First semester students will register for 990 research credits in the department of the Biophysics Program Chair, Meyer Jackson. Once a thesis lab is chosen, these credits will be conducted in the thesis advisor's home department.

POLICIES**GRADUATE SCHOOL POLICIES**

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

**MAJOR-SPECIFIC POLICIES
GRADUATE PROGRAM HANDBOOK**

The Graduate Program Handbook (<http://www.biophysics.wisc.edu/handbook>) is the repository for all of the program's policies and requirements.

Prior Coursework**Graduate Work from Other Institutions**

With program approval, students are allowed to count no more than 9 credits of graduate coursework from other institutions. Coursework earned more than two years prior to admission to the doctoral degree is not allowed to satisfy requirements. No admissions are made into the master's program.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

With program approval, students are allowed to count no more than 9 credits of coursework numbered 300 or above taken as a UW–Madison Special student. Coursework earned more than two years prior to admission to the doctoral degree is not allowed to satisfy requirements. No admissions are made into the master's program.

PROBATION

If students fall below the 3.00 GPA program requirement or have incomplete grades, the Biophysics Program follows the Graduate School's policy of satisfactory/unsatisfactory progress. This could result in academic probation or suspension.

ADVISOR / COMMITTEE

All students are required to have an advisor by the end of their first semester in the program. Thesis committees must be formed at the

end of a student's first year in the program. The committee consists of at least four other faculty members and the student's advisor and faculty must represent at least two different departments on campus. After gaining dissertator status, students are required to hold yearly progress report meetings with their committee until graduation.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Fall semester enrollment only. First semester, program-sponsored lab rotations lead to thesis lab selection and research assistantship through the thesis advisor.

Chair Professor Meyer Jackson (Neuroscience Department) Website (<https://neuro.wisc.edu/staff/jackson-meyer>)

Paul Ahlquist (Oncology) Website (<https://mcardle.wisc.edu/who-we-are/mcardle-faculty/paul-g-ahlquist-phd>)

Tom Brunold (Chemistry) Website (<http://brunold.chem.wisc.edu>)

Judith Burstyn (Chemistry) Website (<http://burstyn.chem.wisc.edu>)

Sam Butcher (Biochemistry) Website (<https://biochem.wisc.edu/faculty/butcher>)

Silvia Cavagnero (Chemistry) Website (<http://cavagnero.chem.wisc.edu>)

Baron Chanda (Neuroscience) Website (<http://bclab.neuro.wisc.edu>)

Ed Chapman (Neuroscience) Website (<https://chapman.neuro.wisc.edu>)

Gheorghe Craciun (Mathematics) Website (<http://www.math.wisc.edu/~craciun>)

Cindy Czajkowski (Neuroscience) Website (<https://neuro.wisc.edu/staff/czajkowski-cynthia>)

Katrina Forest (Bacteriology) Website (https://bact.wisc.edu/people_profile.php?t=rf&p=kforres1)

Brian Fox (Biochemistry) Website (<https://biochem.wisc.edu/faculty/fox/default.aspx>)

Sam Gellman (Chemistry) Website (<http://gellman.chem.wisc.edu>)

Pupa Gilbert (Physics)

Randy Goldsmith (Chemistry) Website (<https://goldsmith.chem.wisc.edu>)

Jeff Hardin (Zoology) Website (<http://worms.zoology.wisc.edu>)

Katie Henzler-Wildman (Biochemistry) Website (<https://biochem.wisc.edu/faculty/henzler-wildman>)

Hazel Holden (Biochemistry) Website (<https://biochem.wisc.edu/faculty/holden/default.aspx>)

Aaron Hoskins (Biochemistry) Website (<https://biochem.wisc.edu/faculty/hoskins/default.aspx>)

Mathew Jones (Neuroscience) Website (<https://neuro.wisc.edu/staff/jones-mathew-2>)

Jim Keck (Biomolecular Chemistry) Website (<https://bmolchem.wisc.edu/staff/keck-james>)

Bob Landick (Biochemistry) Website (<https://landick.wisc.edu>)

John Markley (Biochemistry) Website (<https://biochem.wisc.edu/faculty/markley>)

Megan McClean (Biomedical Engineering) Website (<http://mccleanlab.bme.wisc.edu>)

Matthew Merrins (Biomolecular Chemistry)

Julie Mitchell (Mathematics) Website (<https://biochem.wisc.edu/faculty/mitchell/default.aspx>)

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Articulates challenges, frontiers and limits with respect to theory, knowledge or practice within the field of study.
2. Formulates ideas, concepts, designs, and/or techniques beyond the current boundaries of knowledge within the field of study.
3. Creates research, scholarship or performance that makes a substantive contribution.
4. Demonstrates breadth within their learning experiences.
5. Communicates complex or ambiguous ideas in a clear and understandable manner.
6. Evaluates the implications of the discipline to broader social concerns.
7. Fosters ethical conduct and professional guidelines.

PEOPLE

Faculty:

Regina Murphy (Chemical and Biological Engineering) Website (<http://murphygroup.che.wisc.edu>)

Vatsan Raman (Biochemistry) Website (<https://biochem.wisc.edu/faculty/raman>)

Ivan Rayment (Biochemistry) Website (<https://biochem.wisc.edu/faculty/rayment/default.aspx>)

Tom Record (Biochemistry) Website (<https://biochem.wisc.edu/faculty/record>)

Gail Robertson (Neuroscience) Website (<https://neuro.wisc.edu/staff/robertson-gail>)

Phil Romero (Biochemistry) Website (<https://biochem.wisc.edu/faculty/romero>)

Kris Saha (Biomedical Engineering) Website (<http://sahalab.bme.wisc.edu>)

David Schwartz (Chemistry) Website (<https://www.chem.wisc.edu/users/schwartz>)

Alessandro Senes (Biochemistry) Website (<https://biochem.wisc.edu/faculty/senes/default.aspx>)

Nate Sherer (Oncology) Website (<https://mcardle.wisc.edu/who-we-are/faculty/nathan-m-sherer-phd>)

Melissa Skala (Biomedical Engineering) Website (<https://morgridge.org/research/medical-engineering/multiscale-imaging>)

Lloyd Smith (Chemistry) Website (<https://www.chem.wisc.edu/users/smith>)

Daniel van der Weide (Electrical and Computer Engineering) Website (<http://vdw.ece.wisc.edu>)

Reid Van Lehn (Chemical and Biological Engineering) Website (<http://vanlehngroup.che.wisc.edu>)

Ophelia Venturelli (Biochemistry) Website (<https://biochem.wisc.edu/faculty/venturelli>)

Doug Weibel (Biochemistry) Website (<https://biochem.wisc.edu/faculty/weibel/default.aspx>)

James Weisshaar (Chemistry) Website (<https://www.chem.wisc.edu/users/weisshaar>)

Yongna Xing (Oncology): Website (<https://mcardle.wisc.edu/who-we-are/mcardle-faculty/yongna-xing-phd>)

John Yin (Chemical and Biological Engineering) Website (<https://yin.discovery.wisc.edu>)

CELLULAR AND MOLECULAR BIOLOGY, M.S.

Graduate study in cellular and molecular biology at the University of Wisconsin–Madison is a research-oriented interdisciplinary program leading to the Ph.D. degree. Students are not admitted to the master's degree program. The university has one of the largest and most prestigious biology facilities in the world, well-noted for its

cooperation and collaboration across department boundaries. The Cellular and Molecular Biology Program (CMB) is an important part of that interdepartmental strength, providing students with the opportunity to work with more than 190 faculty members in 40 departments.

A major strength of the program is that it provides the opportunity for groups of investigators to work together on research topics of common interest. Research topic areas, identified as focus groups, are composed of faculty and students studying common research areas. Each group is held together by participation of both students and faculty at regular research presentations and by the participation of faculty on thesis committees of many students in the group. Because of the diverse nature of most research areas and the cross-fertilization among focus groups, many faculty and students participate in the activities of multiple focus groups.

The focus groups are: cancer biology; cell adhesion and cytoskeleton; cellular and molecular metabolism; developmental biology and regenerative medicine; immunology; membrane biology and protein trafficking; molecular and genome biology of microbes; plant biology; RNA; systems biology; transcriptional mechanisms; and virology. For a complete listing of each faculty member associated with each focus group and the corresponding research, see the CMB website (<http://www.cmb.wisc.edu>).

The CMB program encourages each student to develop an independent and creative approach to science. These skills can be gained through the program requirements, which include course work and research in the student's specific area of interest. All CMB students are required to obtain 10 credits in the CMB core curriculum, which consists of both cellular and molecular biology course work, in addition to a 1-credit ethics requirement. Students also take courses and seminars, and participate in journal clubs related to their specific areas of expertise. Research experience is an integral part of the program while completing these requirements. The combination of coursework and research experience allows students to obtain a solid foundation in cellular and molecular biology that is also tailored to the professional objectives of each student. Specific core curriculum requirements can be found at the CMB website (<http://www.cmb.wisc.edu>).

ADMISSIONS

This master's program is offered for work leading to the Ph.D. Students may not apply directly for the master's, and should instead see the admissions information for the Ph.D. (p. 693)

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Contact the program for information on required assessments and examinations.

Language Requirements Contact the program for information on any language requirements.

REQUIRED COURSES

Eleven credits of coursework, not including 990 research credits, are required to complete the CMB course requirements. One course must be taken from the "core" list of molecular biology courses and one course must be taken from the "core" list of cell biology courses. The remaining credits can come from either the "core" or "elective" list of classes to bring the total number of credits to 10. In addition, 1 credit must be fulfilled through the required ethics course. All CMB course requirements must be completed by the end of the student's second year, before completing the preliminary exam and obtaining dissertator status.

Code	Title	Credits
Course Requirements ¹		
<i>Molecular Biology Core</i>		3
Choose one of the following:		
BIOCHEM/ GENETICS/ MD GENET 620	Eukaryotic Molecular Biology	
BIOCHEM/ GENETICS/ MICROBIO 612	Prokaryotic Molecular Biology	
MICROBIO/ ONCOLOGY/ PL PATH 640	General Virology-Multiplication of Viruses	
<i>Cell Biology Core</i>		3
Choose one of the following:		
BOTANY 860	Plant Cell Biology	
ZOOLOGY/ ANATOMY/ NTP 765	Developmental Neuroscience	
PATH 750	Cellular and Molecular Biology/ Pathology	
ONCOLOGY 703	Carcinogenesis and Tumor Cell Biology	
<i>Ethics Core</i> ²		
ONCOLOGY 715	Ethics in Science	1
Remaining credits can come from either the core or elective list of classes to bring the total number of credits to eleven.		
<i>Elective Courses</i>		
BIOCHEM 601	Protein and Enzyme Structure and Function	
BIOCHEM/ BOTANY 621	Plant Biochemistry	

BIOCHEM/ PHMCOL-M/ ZOOLOGY 630	Cellular Signal Transduction Mechanisms
B M E/CBE 510	Introduction to Tissue Engineering
B M E 545	Engineering Extracellular Matrices
B M E 556	Systems Biology: Mammalian Signaling Networks
B M I 826	Special Topics in Biostatistics and Biomedical Infomatics
B M I/STAT 877	Statistical Methods for Molecular Biology
BOTANY/ BIOCHEM/ GENETICS 840	Regulatory Mechanisms in Plant Development
CRB 610	Fundamentals of Mammalian Embryology
CRB 640	Fundamentals of Stem Cell and Regenerative Biology
CRB 650	Molecular and Cellular Organogenesis
CRB/ MEDICINE 701	Cell Signaling and Human Disease
CBE/B M E 520	Stem Cell Bioengineering
CBE/B M E 783	Design of Biological Molecules
CHEM/ BIOCHEM 665	Biophysical Chemistry
GENETICS 631	Plant Genetics
GENETICS/ BOTANY/M M & I/ MICROBIO/ PL PATH 655	Biology and Genetics of Fungi
GENETICS 885	Advanced Genomic and Proteomic Analysis
GENETICS/ MD GENET 677	Advanced Topics in Genetics
GENETICS/ HORT 550	Molecular Approaches for Potential Crop Improvement
M M & I 555	Vaccines: Practical Issues for a Global Society
M M & I/ MICROBIO 740	Mechanisms of Microbial Pathogenesis
M M & I/PATH- BIO 750	Host-Parasite Relationships in Vertebrate Viral Disease
GENETICS/ MICROBIO 607	Advanced Microbial Genetics
MICROBIO 625	Advanced Microbial Physiology
MICROBIO/ BMOLCHEM 668	Microbiology at Atomic Resolution
NTP/ NEURODPT 610	Cellular and Molecular Neuroscience
NUTR SCI/ BIOCHEM 619	Advanced Nutrition: Intermediary Metabolism of Macronutrients
ONCOLOGY 675	Advanced or Special Topics in Cancer Research
PATH-BIO 675	Special Topics
PATH 751	Cell and Molecular Biology of Aging

PATH 803	Pathogenesis of Major Human Diseases
PL PATH/ BOTANY/ ENTOM 505	Plant-Microbe Interactions: Molecular and Ecological Aspects
STAT/F&W ECOL/ HORT 571	Statistical Methods for Bioscience I
ZOOLOGY 604	Computer-based Gene and Disease/ Disorder Research Lab

Research Credits

A minimum of 51 credits taken in graduate level courses are required: the 11 above, and the remaining credits can be 990 research credits.

Total Credits 51

¹ EXCEPTION: M.D./Ph.D. students are only required to take 3 credits from the Core Curriculum or the Elective Courses list.

² EXCEPTION: M.D./Ph.D. students are not required to take an ethics course because they received this training in their M.D. courses.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<http://www.cmb.wisc.edu/handbook>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

Does not appear on UW–Madison transcript or count toward graduate GPA. The minimum residence requirement can be satisfied only with courses taken as a graduate student at UW–Madison, with the exception being graduate-level work taken as a CIC traveling scholar. These requests evaluated on case-by-case basis.

UW–Madison Undergraduate

The program may decide to accept up to 7 credits numbered 300 or above of required or elective courses from undergraduate work completed at UW–Madison toward fulfillment of minimum degree requirements. This is not allowed to count toward the 50% graduate coursework minimum unless taken at the 700 level or above. Work will not appear on the graduate career portion of UW–Madison transcript or count toward GPA. Minimum residence credit requirement can be satisfied only with courses taken as a graduate student at UW–Madison. All requests evaluated on case-by-case basis.

UW–Madison University Special

The program may accept up to 15 University Special student credits as fulfillment of the minimum graduate residence, or graduate degree requirements on occasion. This work would not be allowed to count toward the 50% graduate coursework minimum unless taken at the 700 level or above. All requests evaluated on case-by-case basis.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

The thesis advisor will assist the graduate student throughout the duration of their studies. Upon choosing a thesis advisor, the student should formulate goals and expectations when starting in a permanent lab home. The student and thesis advisor should work together to ensure that mutual goals and expectations are met. The thesis advisor will monitor and guide the student's progress toward their degree, provide the student with advice about how and when to meet the degree requirements of the program, and help the student decide on appropriate coursework during their studies.

After joining a thesis lab, students are required to form a thesis committee. The purpose of the thesis committee is to: guide the student through the process of earning their degree and meeting all CMB program requirements; assist the student in developing as an independent scientist in the student's area of research; provide the student with an array of ideas and opportunities regarding the direction of their research and thesis project; and evaluate the student's research proposal, attend curriculum certification, preliminary exam, annual progress report, and thesis defense.

The thesis committee consists of five faculty members, including the thesis advisor. All committee members must be readers when the student defends their dissertation. Three committee members, including the thesis advisor, must be faculty trainers in the CMB program. Two committee members must be outside the student's direct area of expertise.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

CMB students all earn a stipend that is set by the program each year, and tuition is covered. First year rotating students are funded through the CMB program during the first semester. After the first semester, students are typically funded by their thesis advisor. In some cases, students earn individual fellowships or training grant

slots and are funded through these mechanisms. Please contact the CMB program for specific questions about stipend level, etc.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Gain a broad understanding of the cellular and molecular principles that underlie biological processes.
2. Develop proficiency in a chosen area of cellular and molecular biology.
3. Learn to think critically and problem solve to address research challenges using a broad range of theories, research methods, and approaches to scientific inquiry.
4. Create research and scholarship that makes a substantive contribution to the field of cellular and molecular biology.
5. Experience collaboration with scientists within the lab, the department, the program, the university, and beyond.
6. Clearly and effectively communicate scientific ideas and research to both scientists and non-scientists in written and oral forms.
7. Exhibit and foster ethical and professional conduct.
8. Gain exposure to potential career paths and develop leadership and professional skills that will prepare them for a successful and rewarding career.

PEOPLE

Faculty Chairs: David Wassarman (program chair), Kate O'Connor-Giles (admissions chair), Reid Alisch (recruiting chair), Curtis Brandt (advising and orientation chair), Donna Peters (curriculum chair), Caroline Alexander (awards chair), Tim Gomez (training grant liaison)

Focus Group Chairs: Caroline Alexander (Cancer Biology), Jill Wildonger (Cell Adhesion and Cytoskeleton), David Pagliarini (Cellular and Molecular Metabolism), Anne Griep (Developmental Biology and Regenerative Medicine), Jyoti Watters (Immunology), Guy Groblewski (Membrane Biology and Protein Trafficking), Robert Landick (Molecular and Genome Biology of Microbes), Sebastian Bednarek (Plant Biology), David Brow (RNA), Megan McClean (Systems Biology), Melissa Harrison (Transcriptional Mechanisms), Paul Ahlquist (Virology).

For a list of all participating faculty, see the program website (<http://www.cmb.wisc.edu>).

CELLULAR AND MOLECULAR BIOLOGY, PH.D.

Graduate study in cellular and molecular biology at the University of Wisconsin–Madison is a research-oriented interdisciplinary

program leading to the Ph.D. degree. Students are not admitted to the master's degree program. The university has one of the largest and most prestigious biology facilities in the world, well-noted for its cooperation and collaboration across department boundaries. The Cellular and Molecular Biology Program (CMB) is an important part of that interdepartmental strength, providing students with the opportunity to work with more than 190 faculty members in 40 departments.

A major strength of the program is that it provides the opportunity for groups of investigators to work together on research topics of common interest. Research topic areas, identified as focus groups, are composed of faculty and students studying common research areas. Each group is held together by participation of both students and faculty at regular research presentations and by the participation of faculty on thesis committees of many students in the group. Because of the diverse nature of most research areas and the cross-fertilization among focus groups, many faculty and students participate in the activities of multiple focus groups.

The focus groups are: cancer biology; cell adhesion and cytoskeleton; cellular and molecular metabolism; developmental biology and regenerative medicine; immunology; membrane biology and protein trafficking; molecular and genome biology of microbes; plant biology; RNA; systems biology; transcriptional mechanisms; and virology. For a complete listing of each faculty member associated with each focus group and the corresponding research, see the CMB website (<http://www.cmb.wisc.edu>).

The CMB program encourages each student to develop an independent and creative approach to science. These skills can be gained through the program requirements, which include course work and research in the student's specific area of interest. All CMB students are required to obtain 10 credits in the CMB core curriculum, which consists of both cellular and molecular biology course work, in addition to a 1-credit ethics requirement. Students also take courses and seminars, and participate in journal clubs related to their specific areas of expertise. Research experience is an integral part of the program while completing these requirements. The combination of coursework and research experience allows students to obtain a solid foundation in cellular and molecular biology that is also tailored to the professional objectives of each student. Specific core curriculum requirements can be found at the CMB website (<http://www.cmb.wisc.edu>).

ADMISSIONS

Admission to the program is highly competitive. Admission is based on demonstrated ability and interest in mathematics, the physical sciences, chemistry, and biology; three letters of recommendation; and the personal statement. Previous research experience is required. The application deadline for fall admission is December 1. All application materials must be received by this date in order to be reviewed by the CMB Admissions Committee. We do not offer spring or summer admission.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Initially, all students accepted into the Ph.D. degree program receive financial support from Graduate School fellowships, interdepartmental training grants, and/or research assistantships. The program strives to maintain a nationally competitive stipend. Students are guaranteed a stipend of \$28,000 for 2018–19; tuition is remitted. After a student has chosen a thesis advisor, support is obtained either by the thesis advisor or by a previously named source. Graduate students are also eligible for comprehensive health insurance; individual or family coverage is available at a minimal cost. Students are strongly encouraged to apply for a National Science Foundation Graduate Fellowship, at the time of application to graduate school or during the first semester on campus.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the

advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement	51 credits
Minimum Residence Credit Requirement	32 credits
Minimum Graduate Coursework Requirement	Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.
Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.
Assessments and Examinations	Doctoral students are required to take a comprehensive preliminary/oral examination at the end of their second year. In order to complete their preliminary exam, students must have cleared their record of all Incomplete and Progress grades (other than research and thesis). Deposit of the doctoral dissertation in the Graduate School is required.
Language Requirements	Contact the program for information on any language requirements.
Doctoral Minor/Breadth Requirements	Doctoral students in the CMB program are not required to complete a minor, but may choose to.

REQUIRED COURSES

Eleven credits of coursework, not including 990 research credits, are required to complete the CMB course requirements. One course must be taken from the "core" list of molecular biology courses and one course must be taken from the "core" list of cell biology courses. The remaining credits can come from either the "core" or "elective" list of classes to bring the total number of credits to ten. In addition, one credit must be fulfilled through the required ethics course. All CMB course requirements must be completed by the end of the student's second year, before completing the preliminary exam and obtaining dissertator status.

Code	Title	Credits
Course Requirements ¹		
<i>Molecular Biology Core</i>		3
Choose one of the following:		
BIOCHEM/ GENETICS/ MD GENET 620	Eukaryotic Molecular Biology	
BIOCHEM/ GENETICS/ MICROBIO 612	Prokaryotic Molecular Biology	

MICROBIO/ ONCOLOGY/ PL PATH 640	General Virology-Multiplication of Viruses	
<i>Cell Biology Core</i>		3
Choose one of the following:		
BOTANY 860	Plant Cell Biology	
ZOOLOGY/ ANATOMY/ NTP 765	Developmental Neuroscience	
PATH 750	Cellular and Molecular Biology/ Pathology	
ONCOLOGY 703	Carcinogenesis and Tumor Cell Biology	
<i>Ethics Core</i> ²		
ONCOLOGY 715	Ethics in Science	1
Remaining credits can come from either the core or elective list of classes to bring the total number of credits to eleven.		4
<i>Elective Courses</i>		
BIOCHEM 601	Protein and Enzyme Structure and Function	
BIOCHEM/ BOTANY 621	Plant Biochemistry	
BIOCHEM/ PHMCOL-M/ ZOOLOGY 630	Cellular Signal Transduction Mechanisms	
B M E/CBE 510	Introduction to Tissue Engineering	
B M E 545	Engineering Extracellular Matrices	
B M E 556	Systems Biology: Mammalian Signaling Networks	
B M I 826	Special Topics in Biostatistics and Biomedical Informatics	
B M I/STAT 877	Statistical Methods for Molecular Biology	
BOTANY/ BIOCHEM/ GENETICS 840	Regulatory Mechanisms in Plant Development	
CRB 610	Fundamentals of Mammalian Embryology	
CRB 640	Fundamentals of Stem Cell and Regenerative Biology	
CRB 650	Molecular and Cellular Organogenesis	
CRB/ MEDICINE 701	Cell Signaling and Human Disease	
CBE/B M E 520	Stem Cell Bioengineering	
CBE/B M E 783	Design of Biological Molecules	
CHEM/ BIOCHEM 665	Biophysical Chemistry	
GENETICS 631	Plant Genetics	
GENETICS/ BOTANY/M M & I/ MICROBIO/ PL PATH 655	Biology and Genetics of Fungi	
GENETICS 885	Advanced Genomic and Proteomic Analysis	

GENETICS/ MD GENET 677	Advanced Topics in Genetics
GENETICS/ HORT 550	Molecular Approaches for Potential Crop Improvement
M M & I 555	Vaccines: Practical Issues for a Global Society
M M & I/ MICROBIO 740	Mechanisms of Microbial Pathogenesis
M M & I/ PATH-BIO 750	Host-Parasite Relationships in Vertebrate Viral Disease
GENETICS/ MICROBIO 607	Advanced Microbial Genetics
MICROBIO 625	Advanced Microbial Physiology
MICROBIO/ BMOLCHEM 668	Microbiology at Atomic Resolution
NTP/ NEURODPT 610	Cellular and Molecular Neuroscience
NUTR SCI/ BIOCHEM 619	Advanced Nutrition: Intermediary Metabolism of Macronutrients
ONCOLOGY 675	Advanced or Special Topics in Cancer Research
PATH-BIO 675	Special Topics
PATH 751	Cell and Molecular Biology of Aging
PATH 803	Pathogenesis of Major Human Diseases
PL PATH/ BOTANY/ ENTOM 505	Plant-Microbe Interactions: Molecular and Ecological Aspects
STAT/F&W ECOL/ HORT 571	Statistical Methods for Bioscience I
ZOOLOGY 604	Computer-based Gene and Disease/ Disorder Research Lab

Research Credits

A minimum of 51 credits taken in graduate level courses are required: the 11 above, and the remaining credits can be 990 research credits. 40

Total Credits 51

¹ EXCEPTION: M.D./Ph.D. students are only required to take 3 credits from the Core Curriculum or the Elective Courses list.

² EXCEPTION: M.D./Ph.D. students are not required to take an ethics course because they received this training in their M.D. courses.

POLICIES**GRADUATE SCHOOL POLICIES**

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

**MAJOR-SPECIFIC POLICIES
GRADUATE PROGRAM HANDBOOK**

The Graduate Program Handbook (<http://www.cmb.wisc.edu/handbook>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK**Graduate Work from Other Institutions**

Does not appear on UW–Madison transcript or count toward graduate GPA. The minimum residence requirement can be satisfied only with courses taken as a graduate student at UW–Madison, with the exception being graduate-level work taken as a CIC traveling scholar. These requests evaluated on case-by-case basis.

UW–Madison Undergraduate

The program may decide to accept up to seven credits numbered 300 or above of required or elective courses from undergraduate work completed at UW–Madison toward fulfillment of minimum degree requirements. This is not allowed to count toward the 50% graduate coursework minimum unless taken at the 700 level or above. Work will not appear on the graduate career portion of UW–Madison transcript or count toward GPA. Minimum residence credit requirement can be satisfied only with courses taken as a graduate student at UW–Madison. All requests evaluated on case-by-case basis.

UW–Madison University Special

The program may accept up to 15 University Special student credits as fulfillment of the minimum graduate residence, or graduate degree requirements on occasion. This work would not be allowed to count toward the 50% graduate coursework minimum unless taken at the 700 level or above. All requests evaluated on case-by-case basis.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

The thesis advisor will assist the graduate student throughout the duration of their Ph.D. studies. Upon choosing a thesis advisor, the student should formulate goals and expectations when starting in a permanent lab home. The student and thesis advisor should work together to ensure that mutual goals and expectations are met. The thesis advisor will monitor and guide the student's progress toward the Ph.D. degree, provide the student with advice about how and when to meet the degree requirements of the program, and help the student decide on appropriate coursework during Ph.D. studies.

After joining a thesis lab, students are required to form a thesis committee. The purpose of the thesis committee is to: guide the student through the process of earning the Ph.D. degree and meeting all CMB program requirements; assist the student in developing as an independent scientist in the student's area of research; provide the student with an array of ideas and opportunities regarding the direction of the research and thesis

project; and evaluate the student's research proposal, attend curriculum certification, preliminary exam, annual progress report, and thesis defense.

The thesis committee consists of five faculty members, including the thesis advisor. All committee members must be readers when the student defends their dissertation. Three committee members, including the thesis advisor, must be faculty trainers in the CMB program. Two committee members must be outside the student's direct area of expertise.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within 5 years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

OTHER

CMB students all earn a stipend that is set by the program each year, and tuition is covered. First year rotating students are funded through the CMB Program during the first semester. After the first semester, students are typically funded by their thesis advisor. In some cases, students earn individual fellowships or training grant slots and are funded through these mechanisms. Please contact the CMB Program for specific questions about stipend level, etc.

CMB Professional Development page (http://www.cmb.wisc.edu/professional_development).

LEARNING OUTCOMES

1. Gain a broad understanding of the cellular and molecular principles that underlie biological processes.
2. Develop proficiency in a chosen area of cellular and molecular biology.
3. Learn to think critically and problem solve to address research challenges using a broad range of theories, research methods, and approaches to scientific inquiry.
4. Create research and scholarship that makes a substantive contribution to the field of cellular and molecular biology.
5. Experience collaboration with scientists within the lab, the department, the program, the university, and beyond.
6. Clearly and effectively communicate scientific ideas and research to both scientists and non-scientists in written and oral forms.
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8. Gain exposure to potential career paths and develop leadership and professional skills that will prepare them for a successful and rewarding career.

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For a list of all participating faculty, see the program website (<http://www.cmb.wisc.edu>).

DISTRIBUTED, DOCTORAL MINOR

(via *Graduate School Academic Policies & Procedures* (<https://grad.wisc.edu/documents/minors>))

Breadth is a required component of doctoral training at UW–Madison. Given there are multiple paths to breadth, the Graduate School leaves the choice of whether students achieve breadth through a minor or other means up to the specific graduate program.

There are two options for the doctoral minor.

Option A is called an external minor. Any of the named minors here (p. 13) are considered Option A minors.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PROGRAM RESOURCES

The CMB program offers and encourages participation in many professional development opportunities. The student-led Professional Development Committee plans events such as visiting speakers, panelists, and an annual mock interview event. The program shares information about alumni and their current employment with CMB students and encourages collaboration between the two groups. At the annual student retreat, students hear a panel featuring CMB alumni currently working in various industries. Program requirements such as an annual required oral presentation and an annual committee meeting foster professional development skills. Students also have opportunities to participate in program governance and leadership roles in other program activities such as advising and orientation, recruiting, admissions, and the Coordinating Committee. A weekly email newsletter publicizes other relevant upcoming professional development opportunities. More information can be found on the

Option B is called a distributed minor. Distributed minors require a minimum of 9 credits in one or more programs forming a coherent topic, and can include coursework in the program. Fulfillment of this option requires the approval of the major program.

REQUIREMENTS

The Graduate School's minimum course requirements for the minor include:

- An average GPA of 3.00 on all minor coursework;
- Coursework must be graded courses numbered 300 or above; no audits or pass/fail;
- Coursework may not be double counted for major requirements;
- Maximum 3 credits of independent study (e.g., 699, 799, 899, 999);
- Research and thesis cannot be used to satisfy the minor (e.g., 790, 890, 990);
- No more than 5 credits of coursework completed more than 5 years prior to admission to the doctoral program; coursework taken 10 years ago or more may not be used.

A student cannot earn a doctoral minor and a graduate/professional certificate of the same name. Credits earned towards the minor may count towards the minimum graduate residence requirement, minimum graduate degree requirement, and the minimum graduate coursework (50%) requirement.

SPECIAL GRADUATE COMMITTEE, M.A.

(via *Graduate School Academic Policies & Procedures* (<https://grad.wisc.edu/acadpolicy/#specialgraduatecommitteedegrees>))

The Graduate School can authorize special committees to supervise master's or doctoral programs for students whose needs cannot be met within an established program. Students must first be accepted into a graduate-degree-granting program and establish one semester of full-time graduate work at UW–Madison, and then the faculty advisor should submit a proposal for a special committee degree. Students should check with the Graduate School and the individual faculty member with whom they are interested in working.

Special graduate committee degrees are one-of-a-kind degrees built around unique needs of individual students that cannot be satisfied by approved programs (e.g., by existing major program/minor combinations, joint degrees, distributed minors, etc.) and may permit individual degrees in new and emerging fields or combinations of disciplines. A higher degree of independence is required on the part of the student, since easily available guidance provided by programs is often more difficult to obtain, and there is not the usual collegial group of students in closely related research and coursework.

ADMISSIONS

(via *Graduate School Academic Policies & Procedures* (<https://grad.wisc.edu/acadpolicy/#specialgraduatecommitteedegrees>))

The master's and doctoral special graduate committee guidelines are:

1. Prospective students who may have an interest in a special graduate committee degree should apply to the degree program that is closest to their program interest.
2. Upon receipt of an application on which a prospective student has expressed interest in a special graduate committee degree, the program will follow all relevant program admission requirements.
3. Students may not be admitted directly to a special graduate committee degree program. They must be accepted for admission by an established department or program and be attending classes at UW–Madison before a proposal for a special graduate committee degree will be considered by the Graduate School.
4. The department or program admitting the student must be prepared to see the student through an established degree program. No commitments are made to provide a special graduate committee degree until after the student is enrolled and the proposal for the special degree and the student's ability at the graduate level have been evaluated and approved.
5. The student's advisor authors and submits the special graduate committee degree proposal on behalf of the student as early in the student's program as possible. Proposals submitted after a substantial portion of the program has been completed will not be accepted. Doctoral proposals must be submitted by the end of the first year of graduate work. Master's proposals must be submitted after the equivalent of the first full-time semester of graduate work. The proposal should consist of the following elements:
 - The reasons the special graduate committee program is needed and an explanation of why the student's needs cannot be met within existing programs.
 - The exact title of the proposed degree program (which should be brief and descriptive).
 - The proposed course and seminar program of graduate work on this campus. Include the course title, program, course number, credits, grade, and semester taken/to be taken.
 - Any specific requirements of the dissertation or thesis (language, equipment, etc.).
 - The nature and scope of preliminary examinations for the doctoral degree, or the examination procedure for the master's degree.
 - The nature of the dissertation or thesis (general subject area).
 - The names of the faculty members who, in addition to the advisor, are willing to share the responsibility of supervising the student's program. Including the advisor, the doctoral degree requires five members (including four UW–Madison graduate faculty members), and the master's degree requires three members (including two UW–Madison graduate faculty members). Approval signatures of the committee members are required on the proposal.
6. The Graduate School will carefully review proposals to determine whether or not the program can be carried out within an established department or program, joint degrees, appropriate use of minors, or other available mechanisms. The suitability and degree of commitment of the committee for the proposed program will be examined.
7. The chairperson of the committee (usually the advisor) should be a member of the program to which the student originally had been admitted. That program should remain the keeper of the student's records and should make all appropriate nominations for financial aid.

8. The Graduate School is concerned about maintaining active participation by all members of special degree committees in the ongoing program of the student and asks the individual members of the committee to assume program responsibilities provided institutionally in a conventional program. Faculty members who are willing to serve on these committees should be prepared to participate fully in all aspects of the student's program from the beginning, especially where they must provide the necessary expertise in their particular areas of interest.

SPECIAL GRADUATE COMMITTEE, M.S.

(via Graduate School Academic Policies & Procedures (<https://grad.wisc.edu/acadpolicy/#specialgraduatecommitteedegrees>))

The Graduate School can authorize special committees to supervise master's or doctoral programs for students whose needs cannot be met within an established program. Students must first be accepted into a graduate-degree-granting program and establish one semester of full-time graduate work at UW–Madison, and then the faculty advisor should submit a proposal for a special committee degree. Students should check with the Graduate School and the individual faculty member with whom they are interested in working.

Special graduate committee degrees are one-of-a-kind degrees built around unique needs of individual students that cannot be satisfied by approved programs (e.g., by existing major program/minor combinations, joint degrees, distributed minors, and so on) and may permit individual degrees in new and emerging fields or combinations of disciplines. A higher degree of independence is required on the part of the student, since easily available guidance provided by programs is often more difficult to obtain, and there is not the usual collegial group of students in closely related research and coursework.

ADMISSIONS

(via Graduate School Academic Policies & Procedures (<https://grad.wisc.edu/acadpolicy/#specialgraduatecommitteedegrees>))

The master's and doctoral special graduate committee guidelines are:

1. Prospective students who may have an interest in a special graduate committee degree should apply to the degree program that is closest to their program interest.
2. Upon receipt of an application on which a prospective student has expressed interest in a special graduate committee degree, the program will follow all relevant program admission requirements.
3. Students may not be admitted directly to a special graduate committee degree program. They must be accepted for admission by an established department or program and be attending classes at UW–Madison before a proposal for a special graduate committee degree will be considered by the Graduate School.
4. The department or program admitting the student must be prepared to see the student through an established degree program. No commitments are made to provide a special graduate committee degree until after the student is enrolled and the proposal for the special degree and the student's ability at the graduate level have been evaluated and approved.

5. The student's advisor authors and submits the special graduate committee degree proposal on behalf of the student as early in the student's program as possible. Proposals submitted after a substantial portion of the program has been completed will not be accepted. Doctoral proposals must be submitted by the end of the first year of graduate work. Master's proposals must be submitted after the equivalent of the first full-time semester of graduate work.

The proposal should consist of the following elements:

- The reasons the special graduate committee program is needed and an explanation of why the student's needs cannot be met within existing programs.
 - The exact title of the proposed degree program (which should be brief and descriptive).
 - The proposed course and seminar program of graduate work on this campus. Include the course title, program, course number, credits, grade, and semester taken/to be taken.
 - Any specific requirements of the dissertation or thesis (language, equipment, etc.).
 - The nature and scope of preliminary examinations for the doctoral degree, or the examination procedure for the master's degree.
 - The nature of the dissertation or thesis (general subject area).
 - The names of the faculty members who, in addition to the advisor, are willing to share the responsibility of supervising the student's program. Including the advisor, the doctoral degree requires five members (including four UW–Madison graduate faculty members), and the master's degree requires three members (including two UW–Madison graduate faculty members). Approval signatures of the committee members are required on the proposal.
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8. The Graduate School is concerned about maintaining active participation by all members of special degree committees in the ongoing program of the student and asks the individual members of the committee to assume program responsibilities provided institutionally in a conventional program. Faculty members who are willing to serve on these committees should be prepared to participate fully in all aspects of the student's program from the beginning, especially where they must provide the necessary expertise in their particular areas of interest.

SPECIAL GRADUATE COMMITTEE, PH.D.

(via Graduate School Academic Policies & Procedures (<https://grad.wisc.edu/acadpolicy/#specialgraduatecommitteedegrees>))

The Graduate School can authorize special committees to supervise master's or doctoral programs for students whose needs cannot be met within an established program. Students must first be accepted into a graduate-degree-granting program and establish one semester of full-time graduate work at UW–Madison, and then the faculty advisor should submit a proposal for a special committee degree. Students should check with the Graduate School and the individual faculty member with whom they are interested in working.

Special graduate committee degrees are one-of-a-kind degrees built around unique needs of individual students that cannot be satisfied by approved programs (e.g., by existing major program/minor combinations, joint degrees, distributed minors, and so on) and may permit individual degrees in new and emerging fields or combinations of disciplines. A higher degree of independence is required on the part of the student, since easily available guidance provided by programs is often more difficult to obtain, and there is not the usual collegial group of students in closely related research and coursework.

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The master's and doctoral special graduate committee guidelines are:

1. Prospective students who may have an interest in a special graduate committee degree should apply to the degree program that is closest to their program interest.
2. Upon receipt of an application on which a prospective student has expressed interest in a special graduate committee degree, the program will follow all relevant program admission requirements.
3. Students may not be admitted directly to a special graduate committee degree program. They must be accepted for admission by an established department or program and be attending classes at UW–Madison before a proposal for a special graduate committee degree will be considered by the Graduate School.
4. The department or program admitting the student must be prepared to see the student through an established degree program. No commitments are made to provide a special graduate committee degree until after the student is enrolled and the proposal for the special degree and the student's ability at the graduate level have been evaluated and approved.
5. The student's advisor authors and submits the special graduate committee degree proposal on behalf of the student as early in the student's program as possible. Proposals submitted after a substantial portion of the program has been completed will not be accepted. Doctoral proposals must be submitted by the end of the first year of graduate work. Master's proposals must be submitted after the equivalent of the first full-time semester of graduate work. The proposal should consist of the following elements:
 - The reasons the special graduate committee program is needed and an explanation of why the student's needs cannot be met within existing programs.
 - The exact title of the proposed degree program (which should be brief and descriptive).
 - The proposed course and seminar program of graduate work on this campus. Include the course title, program, course number, credits, grade, and semester taken/to be taken.

- Any specific requirements of the dissertation or thesis (language, equipment, etc.).
 - The nature and scope of preliminary examinations for the doctoral degree, or the examination procedure for the master's degree.
 - The nature of the dissertation or thesis (general subject area).
 - The names of the faculty members who, in addition to the advisor, are willing to share the responsibility of supervising the student's program. Including the advisor, the doctoral degree requires five members (including four UW–Madison graduate faculty members), and the master's degree requires three members (including two UW–Madison graduate faculty members). Approval signatures of the committee members are required on the proposal.
6. The Graduate School will carefully review proposals to determine whether or not the program can be carried out within an established department or program, joint degrees, appropriate use of minors, or other available mechanisms. The suitability and degree of commitment of the committee for the proposed program will be examined.
 7. The chairperson of the committee (usually the advisor) should be a member of the program to which the student originally had been admitted. That program should remain the keeper of the student's records and should make all appropriate nominations for financial aid.
 8. The Graduate School is concerned about maintaining active participation by all members of special degree committees in the ongoing program of the student and asks the individual members of the committee to assume program responsibilities provided institutionally in a conventional program. Faculty members who are willing to serve on these committees should be prepared to participate fully in all aspects of the student's program from the beginning, especially where they must provide the necessary expertise in their particular areas of interest.

HISTORY

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- History of Science, Medicine and Technology, Doctoral Minor (p. 701)
- History of Science, Medicine and Technology, M.A. (p. 701)
- History of Science, Medicine and Technology, Ph.D. (p. 706)
- History, Doctoral Minor (p. 711)
- History, M.A. (p. 712)
- History, Ph.D. (p. 717)

PEOPLE

Faculty: Professors Boswell (chair), Chamberlain, Cronon, Dennis, Desan, Dunlavy, Enke, Enstad, Hansen, Hirsch, Hsia, Johnson, Kantrowitz, Keller, Kleijwegt, Koshar, Lederer, McCoy, McDonald, Michels, Mitman, Neville, Nyhart, Plummer, Reese, Roberts, Sharpless, Shoemaker, Sommerville, Sweet, Thal, Wandel, Wink, Young; Associate Professors Chan, Cheng, Enke, Hall, Houck, Ipsen, Kim, Kodesh, Murthy, Ratner-Rosenhagen,

Taylor, Ussishkin; Assistant Professors Bitzan, Brown, Callaci, Chamedes, Ciancia, Gómez, Haynes, Hennessy, Hicks, Iber, Jackson, Kinzley, Lapina, Murthy, Nelson, Whiting

See our faculty profiles - alphabetical (<https://history.wisc.edu/people-main/faculty-listed-alphabetically>) and by specialty (<https://history.wisc.edu/people-main/faculty-by-area-of-specialty>).

Faculty Affiliates and Teaching Associates: Carlsson, Chopra, Clark-Pujara, Cullinane, Ermakoff, Greene, Keyser, Nelson (A.), Rider, Sharafi

See our faculty affiliate (<https://history.wisc.edu/people-main/faculty-affiliates>) and teaching associate (<https://history.wisc.edu/people-main/teaching-associates>) profiles.

Ciancia, Gómez, Haynes, Hennessy, Hicks, Iber, Jackson, Kinzley, Lapina, Murthy, Nelson, Whiting

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HISTORY OF SCIENCE, MEDICINE AND TECHNOLOGY, DOCTORAL MINOR

ADMISSIONS

Students in other degree programs who wish to pursue a minor in the History of Science, Medicine, and Technology (HSMT) degree program must reach an agreement on an appropriate plan of study with an HSMT faculty member, who serves as the minor advisor. The "Minor Agreement for Non-History Majors" form can be found on the Department of History's website (<https://history.wisc.edu/our-graduate-program/current-students/graduate-program-policies-procedures-forms>), and must be approved by the graduate program coordinator and the director of graduate studies prior to the beginning of coursework.

REQUIREMENTS

CREDITS REQUIRED: 9

Any History of Science (http://guide.wisc.edu/courses/hist_sci) courses that fit within the following criteria may be used to fulfill the nine-credit requirement:

- At least 6 credits in graduate seminars, and no more than 3 credits in undergraduate courses.
- HIST SCI 990 Research and Thesis may not be used to fulfill the minor requirement.
- The minor field may include up to 3 credits of HIST SCI 999 Independent Work, provided that the student produces at least 15 pages of written work.

PEOPLE

Faculty: Professors Boswell (chair), Chamberlain, Cronon, Dennis, Desan, Dunlavy, Enke, Enstad, Hansen, Hirsch, Hsia, Johnson, Kantrowitz, Keller, Kleijwegt, Koshar, Lederer, McCoy, McDonald, Michels, Mitman, Neville, Nyhart, Plummer, Reese, Roberts, Sharpless, Shoemaker, Sommerville, Sweet, Thal, Wandel, Wink, Young; Associate Professors Chan, Cheng, Enke, Hall, Houck, Ipsen, Kim, Kodesh, Murthy, Ratner-Rosenhagen, Taylor, Ussishkin; Assistant Professors Bitzan, Brown, Callaci, Chamedes,

HISTORY OF SCIENCE, MEDICINE AND TECHNOLOGY, M.A.

With some 160 graduate students and nearly 60 faculty members, the Department of History is home to one of the oldest, most distinguished, and most comprehensive graduate programs in the U.S., renowned for its long and valued tradition of collegiality and openness. Joining our ranks this year are the faculty and graduate students in the former Department of History of Science, Medicine, and Technology, one of the broadest, most prestigious academic programs of its kind in the United States. All told, our internationally recognized faculty (<https://history.wiscweb.wisc.edu/people-main/faculty-listed-alphabetically>) has been mentoring distinguished historians since 1893 (<https://history.wiscweb.wisc.edu/our-graduate-program/ph-d-s-awarded>).

Our degree program in the History of Science, Medicine, and Technology is designed to meet the needs of the Ph.D. candidate, and we offer funding (<https://history.wiscweb.wisc.edu/graduate/prospective-students/funding>) only to students who intend to pursue the Ph.D. However, we also welcome applications from students who wish to earn only the M.A. if they have external funding or are self-funded. Students with doctoral training in one of the health professions may earn an M.A. in History of Medicine. It is also possible to earn a combined M.D./Ph.D. degree through the School of Medicine and Public Health's Medical Scientist Training Program (<https://www.med.wisc.edu/education/md-phd>) and the HSMT degree program.

One of the largest and oldest (<http://www.jstor.org/stable/232359>) academic programs of its kind in the United States, History of Science, Medicine, and Technology (HSMT) draws together faculty members in History and in Medical History and Bioethics (<http://medhist.wisc.edu>). Collectively, we offer broad coverage of the field, with expertise that spans Europe, the United States, Africa, and the Caribbean, stretches from the Middle Ages to the recent past, and ranges across the physical, biological, and social sciences to medicine and technology.

History of Science, Medicine, and Technology at UW–Madison is known for the strength and diversity of its areas of study and its warm, collegial environment. All historical aspects of science, medicine, and technology receive attention—from their internal development to their broader institutional, philosophical, religious, and literary contexts, as well as their relationships with print culture, visual culture, and material culture. Students and faculty regularly participate in the program's weekly Brown Bag and monthly colloquium series, both of which provide opportunities to present work, discuss professional issues, and engage with a wide range of on-campus and outside speakers.

Graduate students come to the History of Science, Medicine, and Technology degree program from a variety of backgrounds in the sciences and humanities and with diverse professional goals. The program maintains a policy of maximum flexibility and, insofar as possible, tailors the work required for the degree to fit the individual. Students are encouraged to undertake work in related programs such as history, philosophy, science, and technology studies, and the various sciences.

ADMISSIONS

All applicants must meet UW–Madison Graduate School's minimum applicant requirements (<https://grad.wisc.edu/admissions/requirements>), in addition to the History Graduate Program requirements.

APPLICATION DEADLINE: DECEMBER 1ST

To apply, applicants must submit or declare the following in the online application (<https://grad.wisc.edu/apply>):

History Supplemental Application

This section of the application asks you to provide information about your research interests, declare your preferred faculty advisors, and outline your prior language preparation (if any).

Writing Sample

Provide a sample that best illustrates the quality of your written work (optimally no more than 50 pages, double-spaced; maximum file size 6 MB).

Transcripts

Upload an unofficial copy of your transcript from all institutions attended, showing any undergraduate and graduate degrees awarded. If accepted, you will be required to send two official transcripts from each institution.

Graduate Record Examination (GRE) scores

GRE test scores are required for admission to our program, and the test must have been taken within the last 5 years. Students requesting a waiver (e.g., international applicants) should contact the director of graduate studies (<https://history.wisc.edu/people/dunlavy-colleen>).

CV or Resumé

This should highlight your accomplishments and qualifications including academic honors or distinctions; professional, research, and/or teaching experience; and any publications.

Letters of recommendation

Provide contact information for the three individuals who will furnish recommendations on your behalf. (They will receive an upload link by email.) Your letter writers need not be historians, but they should be able to speak to your academic preparation to pursue historical studies at the graduate level.

Statement of purpose

The statement of purpose (2–3 pages, double-spaced) explains your reasons for graduate study. It may be the hardest part of the application to write, but it is also the most important. While you will likely include some autobiographical information, its primary purpose is to acquaint us with how your mind works. We want to know, for example, what kinds of intellectual problems and issues interest you, whose stories intrigue you, what sorts of analytical or narrative approaches you like to pursue, which historical writings you admire—and your reasons for these various preferences. Please help us understand your decision to enter the historical profession, especially at a time when the academic job market

is in decline, and how you see your own role in it. There is no single right way to approach this part of the application, but we suggest that you bear in mind the usual cautions for personal writing: speak straightforwardly, in your own voice, and write as well as you know how.

INTERNATIONAL APPLICANTS

All international applicants must also meet the **English Proficiency** requirements (<https://grad.wisc.edu/admissions/requirements>) set forth by the Graduate School.

For additional detail about the admissions process, please visit the Prospective Student (<https://history.wisc.edu/our-graduate-program/prospective-students>) pages on our website.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

We offer funding only to students who intend to pursue the Ph.D.—an application for admission to our Ph.D. program, therefore, is an application for funding. We also welcome applications from students who have external funding or are self-funded, including those pursuing the M.A. only.*

MULTI-YEAR FUNDING PACKAGE

If you apply to the History of Science, Medicine, and Technology (HSMT) Ph.D. degree program without external or self-funding and are accepted, you will be offered a multiyear support package, which begins in your first year. The details of our support guarantees may vary by funding source, field of study, and other circumstances, and the guarantee is, of course, contingent on satisfactory progress and performance. Most of our support packages offer five years of support and begin with a fellowship year from the UW–Madison Graduate School, generously funded by the Wisconsin Alumni Research Foundation (<http://www.warf.org/stewardship/grants-support/current/current-grant.cmsx>). Our most distinguished packages include two years of fellowships:

- Graduate Research Scholar fellowships (<http://ls.wisc.edu/current-students/graduate-students/cgrs>) for underrepresented students or first-generation college students—offered annually
- John A. Neu Fellowship in the History of Science, Medicine, and Technology—offered as endowment income permits

Additional years of guaranteed funding will come from employment as teaching assistants or project assistants or additional fellowships.

COMPETING FOR ADDITIONAL SUPPORT

All students in good standing can apply for writing prizes, conference travel awards, and supplements to external awards. Once graduate students have passed their preliminary examination and advanced to candidacy, they may apply for various departmental fellowships and research travel funding.

Further funding opportunities are available to students who have reached the advanced stages of dissertation writing. Our advanced dissertators may apply for teaching fellowships that give them the opportunity to design and teach an undergraduate course—the Merle Curti Teaching Fellowship (<https://history.wiscweb.wisc.edu/graduate/prospective-students/funding/merle-curti-teaching-fellowship>) (open field), the George L. Mosse Teaching Fellowship in European History (<https://mosseprogram.wisc.edu/fellowships>), and the William J. Courtenay Teaching Fellowship in ancient, medieval, or early modern European history. The William Coleman Dissertation Fellowship in the History of Science (<https://history.wisc.edu/our-graduate-program/current-students/funding-opportunities>) supports one semester of advanced dissertation writing, as does the David and Greta Lindberg Distinguished Graduate Fellowship. (These fellowships are offered as often as endowment income permits.) Thanks to funding provided by the Doris G. Quinn Foundation (<https://dorisquinnfoundation.org>), we are also pleased to offer the Doris G. Quinn Fellowship, which supports the final year of dissertation writing in any field.

In addition, UW–Madison offers a wealth of other opportunities to compete for funding offered, for example, by the International Division (<http://international.wisc.edu/funding-your-international-experiences>), the Institute for Research in the Humanities (<http://irh.wisc.edu/fellowships/dissertation>), and the UW Graduate School (research and conference travel awards (<https://grad.wisc.edu/studentfunding/grantscomp>)).

More details on our funding for current/continuing students are available here (<https://history.wiscweb.wisc.edu/our-graduate-program/current-students/funding-opportunities>).

* If you wish to apply only for the HSMT MA (the so-called terminal MA) or for the MA in History of Medicine for Health Professionals, please describe your sources of support on the History Supplemental Application. For information on the cost of graduate study at UW–Madison, see this link (<https://grad.wisc.edu/admissions/cost>).

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement	30 credits
Minimum Residence Credit Requirement	M.A.: 18 credits M.A. with history of medicine specialization: 24 credits
Minimum Graduate Coursework Requirement	21 must be completed in graduate-level coursework in the HSMT graduate program; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (https://registrar.wisc.edu/course-guide/).
Overall Graduate GPA Requirement	3.00 (3.25 after 4th semester of full-time study).
Other Grade Requirements	The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.
Assessments and Examinations	In order to receive the master's degree, students must pass the Second-Year Review (SYR). A passing review requires that students: complete a 35-page research paper, fulfill one language requirement, complete 30 graduate credits, clear all incompletes, fulfill any additional requirements for their specific field of study, submit a list of prelim fields along with a timeline for completing prelims, and receive a positive endorsement from the three faculty members on the review committee.
Language Requirements	M.A.: Demonstrate, at a minimum, reading knowledge of at least one language other than English. M.A. with history of medicine specialization: No foreign language requirement.

REQUIRED COURSES**M.A. Course Requirements**

Code	Title	Credits
Required Courses		
HIST SCI 720	Proseminar: Historiography and Methods	3
HISTORY 701	History in a Global Perspective	1
HISTORY 800	Research Seminar in History (or an equivalent research seminar)	3
One course in at least four of the following distribution areas:		12
Science: Ancient through the Enlightenment		
Modern Science and Technology		
Medicine and Public Health		
Transnational Science and Medicine		
Race, Gender, Class, and Religion in Science and Medicine		
All HSMT Courses (http://guide.wisc.edu/courses/hist_sci)		
Electives		11
Work with advisor to complete 11 additional credits in courses greater than 700		
Total Credits		30

History of Medicine Specialization¹

This specialization within the M.A. is intended for students with doctoral training in one of the health professions who wish to pursue a master's degree in the history of medicine.

Code	Title	Credits
Required Courses		
HIST SCI 720	Proseminar: Historiography and Methods	3
HIST SCI/HISTORY/MED HIST 504	Society and Health Care in American History	3
HIST SCI/HISTORY/MED HIST 507	Health, Disease and Healing I	3-4
HIST SCI/HISTORY/MED HIST 508	Health, Disease and Healing II	3-4
STS 901	Science, Technology and Medicine in Society	3
Additional History of Medicine course		3
All Medical History Courses (http://guide.wisc.edu/courses/med_hist)		
Additional History of Science course (300-600 level or above)		3
All History of Science Courses (http://guide.wisc.edu/courses/hist_sci)		
Electives		9
Total Credits		30-32

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

POLICIES**GRADUATE SCHOOL POLICIES**

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES**GRADUATE PROGRAM HANDBOOK**

The Graduate Program Handbook (<https://history.wiscweb.wisc.edu/wp-content/uploads/sites/202/2017/05/graduate-handbook2017-18.pdf>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK**Graduate Work from Other Institutions**

M.A.: Total credits transferred for the M.A. degree may not exceed 12 credits. No credits earned more than five years before admission to the M.A. program may be used. No credits carrying a grade below B may be applied toward graduate credit requirements.

M.A. with history of medicine specialization¹: Students can apply up to 6 credits from previous professional advanced degree work in one of the health professions toward the M.A. degree. No credits earned more than five years before admission to the M.A. program may be used. No credits carrying a grade below B are transferable.

UW-Madison Undergraduate

No credits from a previous undergraduate degree are allowed to count toward our graduate degree.

UW-Madison University Special

M.A.: With program approval, students are allowed to count up to 9 credits of coursework numbered 300 or above taken as a UW-Madison University Special student. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements. No credits carrying a grade below B are transferable.

M.A. with history of medicine specialization¹: No credits taken as a UW-Madison University Special student are allowed to count toward the degree.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. An advisor is a faculty member, or sometimes a committee of advisors, from the major department responsible for providing advice regarding graduate studies. To ensure that students are making satisfactory

progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis. Students can be suspended from the Graduate School if they do not have an advisor.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Part time enrollment is permitted, full time preferred.

- ¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PROGRAM RESOURCES

The Department of History is committed to training our students to develop skills required for a variety of careers both in and outside the academy. Although a large network of our alumni teach at colleges and universities in the U.S. and across the world, a number of our Ph.D.s have enjoyed considerable success outside the academy. They include recent graduates who are currently a museum curator, teachers at prestigious preparatory academies, a historian with the U.S. Secretary of Defense's POW/Missing Persons Agency, a CEO of an investment firm, an analyst for a defense contractor, an editor at a small press, and consultants working with non-profits in the human services, education, and public policy fields. In recent years we have undertaken a number of initiatives, detailed below, to broaden the training of our students for a wide array of careers.

Much of the preparation for the job market occurs informally and over the course of the student's graduate career—in the mentoring relationship between faculty advisor and student, in the presentation of student research in department venues, in the student's participation in professional conferences, and in early forms of professional publication. Coursework, such as for the minor requirement or certificates, can be an avenue to expanded competencies. The Center for Humanities, for example, offers a Public Humanities certificate (<http://humanities.wisc.edu/public-humanities/graduate-certificate>). Be sure to explore the Graduate School's resources such as "The Versatile PhD (<https://grad.wisc.edu/pd/versatilephd>)" and its Professional Development pages (<http://grad.wisc.edu/pd>).

Whatever career paths interest you, we encourage you to plan ahead and discuss your options—early and often—with your faculty advisor(s), with the Director of Graduate Studies, or with the Graduate Coordinator.

PROFESSIONAL DEVELOPMENT SEMINARS (HISTORY 710)

This topics seminar, created in 2014-2015, is offered every semester. It emphasizes building skills that are valuable both inside and outside the academy, such as managing the writing process, teaching college history, or communicating historical research to a broad, nonspecialist audience. Since it is a topics course, more than one may be offered in a given semester. Recent topics include "Writing for Academy and Beyond," "Digital History," and "On the Job Market."

PROFESSIONAL DEVELOPMENT EVENTS

Throughout the year, the Graduate Program sponsors various workshops intended to help students negotiate specific milestones of graduate study and to assist them in preparing for and going on the job market as they near completion of the Ph.D. Our programming currently includes:

Preliminary Examination Workshop

This offers a discussion of the various requirements for preliminary examinations: how to assemble committees, compiling reading lists, Graduate School requirements, and more.

Curriculum Vitae Workshops

These workshops are designed for students at all levels, ranging from first-year students writing CVs for campus positions to advanced dissertators on the job market.

Mock Interviews

The Graduate Program offers a series of opportunities to practice with a committee of our faculty for AHA interviews and on-campus job talks. They are open to a limited number of students who expect to be actively on the job market in the fall.

Careers in History Workshops

Our program is committed to helping its graduates seek and secure employment following the completion of their Ph.D. Since the financial crisis in 2008, the academic job market has softened markedly. While the Graduate Program continues to provide outstanding preparation for academic jobs, we also encourage our students to think more broadly about their career prospects and the transferability of their skills. As funds permit, we occasionally bring to campus History graduates who are working in the non-profit, private, or public-sector to meet with current graduate students and share their experience. We also offer opportunities to learn best practices for post-doctoral fellowship applications.

LEARNING OUTCOMES

1. Articulates, critiques, or elaborates the theories, research methods, and approaches to inquiry in HSMT.
2. Identifies sources and assembles evidence pertaining to questions or problems in HSMT.
3. Demonstrates understanding of science, medicine, and technology in a range of historical, social, cultural, and global contexts.
4. Chooses the most appropriate methodologies and practices for a chosen research project.

5. Demonstrates the ability to situate a historical question in relation to the existing literature, and to evaluate and synthesize information pertaining to questions or problems in HSMT.
6. Is able to construct a persuasive historical argument that makes an original contribution to historical knowledge.
7. Communicates clearly, in both written and oral form.
8. Recognizes and applies established principles of ethical and professional conduct.

PEOPLE

Faculty: Professors Boswell (chair), Chamberlain, Cronon, Dennis, Desan, Dunlavy, Enke, Enstad, Hansen, Hirsch, Hsia, Johnson, Kantrowitz, Keller, Kleijwegt, Koshar, Lederer, McCoy, McDonald, Michels, Mitman, Neville, Nyhart, Plummer, Reese, Roberts, Sharpless, Shoemaker, Sommerville, Sweet, Thal, Wandel, Wink, Young; Associate Professors Chan, Cheng, Enke, Hall, Houck, Ipsen, Kim, Kodesh, Murthy, Ratner-Rosenhagen, Taylor, Ussishkin; Assistant Professors Bitzan, Brown, Callaci, Chamedes, Ciancia, Gómez, Haynes, Hennessy, Hicks, Iber, Jackson, Kinzley, Lapina, Murthy, Nelson, Whiting

See our faculty profiles - alphabetical (<https://history.wisc.edu/people-main/faculty-listed-alphabetically>) and by specialty (<https://history.wisc.edu/people-main/faculty-by-area-of-specialty>).

Faculty Affiliates and Teaching Associates: Carlsson, Chopra, Clark-Pujara, Cullinane, Ermakoff, Greene, Keyser, Nelson (A.), Rider, Sharafi

See our faculty affiliate (<https://history.wisc.edu/people-main/faculty-affiliates>) and teaching associate (<https://history.wisc.edu/people-main/teaching-associates>) profiles.

HISTORY OF SCIENCE, MEDICINE AND TECHNOLOGY, PH.D.

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Our degree program in the History of Science, Medicine, and Technology is designed to meet the needs of the Ph.D. candidate, and we offer funding (<https://history.wiscweb.wisc.edu/graduate/prospective-students/funding>) only to students who intend to pursue the Ph.D. However, we also welcome applications from students who wish to earn only the M.A. if they have external funding or are self-funded. Students with doctoral training in one of the health professions may earn an M.A. in History of Medicine. It is also possible to earn a combined M.D./Ph.D. degree through the School of Medicine & Public Health's Medical

Scientist Training Program (<https://www.med.wisc.edu/education/md-phd>) and the HSMT degree program.

One of the largest and oldest (<http://www.jstor.org/stable/232359>) academic programs of its kind in the United States, History of Science, Medicine, and Technology (HSMT) draws together faculty members in History and in Medical History & Bioethics (<http://medhist.wisc.edu>). Collectively, we offer broad coverage of the field, with expertise that spans Europe, the United States, Africa, and the Caribbean, stretches from the Middle Ages to the recent past, and ranges across the physical, biological, and social sciences to medicine and technology.

History of Science, Medicine, and Technology at UW–Madison is known for the strength and diversity of its areas of study and its warm, collegial environment. All historical aspects of science, medicine, and technology receive attention—from their internal development to their broader institutional, philosophical, religious, and literary contexts, as well as their relationships with print culture, visual culture, and material culture. Students and faculty regularly participate in the program's weekly Brown Bag and monthly colloquium series, both of which provide opportunities to present work, discuss professional issues, and engage with a wide range of on-campus and outside speakers.

Graduate students come to the HSMT degree program from a variety of backgrounds in the sciences and humanities and with diverse professional goals. The program maintains a policy of maximum flexibility and, insofar as possible, tailors the work required for the degree to fit the individual. Students are encouraged to undertake work in related programs such as history, philosophy, science and technology studies, and the various sciences. Joint degrees in HSMT and another degree program are also possible (see below). Our graduates pursue research and teaching careers in the history of science, medical history, history of technology, intellectual and cultural history, science in general education programs, science writing, and museum work.

JOINT PH.D. IN HISTORY AND HISTORY OF SCIENCE

Students who wish to obtain a joint Ph.D. in History and the History of Science, Medicine, and Technology are initially admitted to one of the degree programs, and should indicate interest in the joint Ph.D. program at that time. After completion of a master's degree in History or History of Science, Medicine, and Technology, the student applies for admission to the other degree program and, at the same time, to a standing committee of the two programs for admission to the joint program.

Having been admitted to the other degree program and to the joint Ph.D. program, the student then applies to the Graduate School for approval of the joint Ph.D. (See the Graduate School's academic policy regarding joint degrees (<http://grad.wisc.edu/acadpolicy>) for more information and deadlines.) The student's application to the standing committee should take the same form as required by the Graduate School and should be prepared in close consultation with department faculty/staff.

Students in the joint Ph.D. program are assigned a home degree program and follow the regulations of that degree program with regard to seminar requirements, language requirements, financial aid, and regulations for satisfactory progress. Since the joint Ph.D. meets the doctoral minor requirement of the Graduate School, no formal minor is required of students receiving a joint Ph.D. However, students who wish to have a minor field recorded on the transcript may complete a regular Option A or Option B minor, or the internal minor of the department.

The joint Ph.D. student's work is supervised by a committee consisting of three faculty members (two from the home degree program). The

preliminary examinations test the student's competence in both history and history of science, medicine, and technology, balancing the material and fields between the two departments (e.g. two in each, or three in one and two in the other). The number of prelim fields must equal the number required of students majoring exclusively in history or in history of science, medicine, and technology, plus one. Preparation of the Ph.D. dissertation is guided by the student's supervising committee. Satisfactory completion and defense of the dissertation constitute the final requirements for the joint Ph.D. degree.

JOINT PH.D. WITH OTHER DEGREE PROGRAMS

Students in the History of Science, Medicine, and Technology degree program who wish to pursue a joint Ph.D. (one degree, two majors) with another degree program must first be admitted to the other degree program. The proposal for the degree must be approved by the Department of History's Graduate Council before it is submitted to the Graduate School. Students admitted to a joint Ph.D. will satisfy all the normal requirements of their field in History except the minor requirement.

In past years, HSMT students have successfully completed a joint Ph.D. with the Philosophy, Classics, Psychology, History, Chemistry, Mathematics, and Physics degree programs.

For more information on joint Ph.D. options, please contact the graduate program coordinator.

PROGRAM IN GENDER AND WOMEN'S HISTORY (PGWH)

Working under the supervision of a PGWH faculty member, History of Science, Medicine, and Technology students may organize their studies to emphasize gender, women's history, or sexuality. They meet all their HSMT requirements, take the PGWH core seminar on transnational gender history, and take at least two additional History or HSMT graduate seminars that are gender-specific.

Applicants to the HSMT degree program who wish to be considered for the concentration in gender and women's history should indicate this on their Graduate School application.

For more details, see Program in Gender and Women's History (<https://history.wisc.edu/fields-programs-and-working-groups/program-in-gender-and-womens-history>) or contact the graduate program coordinator.

ADMISSIONS

All applicants must meet UW-Madison Graduate School's minimum applicant requirements (<https://grad.wisc.edu/admissions/requirements>), in addition to the below History Graduate Program requirements described below.

APPLICATION DEADLINE: DECEMBER 1ST

To apply, applicants must submit or declare the following in the online application (<https://grad.wisc.edu/apply>):

History Supplemental Application

This section of the application asks you to provide information about your research interests, declare your preferred faculty advisors, and outline your prior language preparation (if any).

Writing Sample

Provide a sample that best illustrates the quality of your written work (optimally no more than 50 pages, double-spaced; maximum file size 6 MB).

Transcripts

Upload an unofficial copy of your transcript from all institutions attended, showing any undergraduate and graduate degrees awarded. If accepted, you will be required to send two official transcripts from each institution.

Graduate Record Examination (GRE) scores

GRE test scores are required for admission to our program, and the test must have been taken within the last 5 years. Students requesting a waiver (e.g., international applicants) should contact the director of graduate studies (<https://history.wisc.edu/people/dunlavy-colleen>).

CV or Resumé

This should highlight your accomplishments and qualifications including academic honors or distinctions; professional, research, and/or teaching experience; and any publications.

Letters of recommendation

Provide contact information for the three individuals who will furnish recommendations on your behalf. (They will receive an upload link by email.) Your letter writers need not be historians, but they should be able to speak to your academic preparation to pursue historical studies at the graduate level.

Statement of purpose

The statement of purpose (2–3 pages, double-spaced) explains your reasons for graduate study. It may be the hardest part of the application to write, but it is also the most important. While you will likely include some autobiographical information, its primary purpose is to acquaint us with how your mind works. We want to know, for example, what kinds of intellectual problems and issues interest you, whose stories intrigue you, what sorts of analytical or narrative approaches you like to pursue, which historical writings you admire—and your reasons for these various preferences. Please help us understand your decision to enter the historical profession, especially at a time when the academic job market is in decline, and how you see your own role in it. There is no single right way to approach this part of the application, but we suggest that you bear in mind the usual cautions for personal writing: speak straightforwardly, in your own voice, and write as well as you know how.

INTERNATIONAL APPLICANTS

All international applicants must also meet the **English Proficiency** requirements (<https://grad.wisc.edu/admissions/requirements>) set forth by the Graduate School.

For additional detail about the admissions process, please visit the Prospective Student (<https://history.wisc.edu/our-graduate-program/prospective-students>) pages on our website.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

We offer funding only to students who intend to pursue the Ph.D.—an application for admission to our Ph.D. program, therefore, is an application for funding. We also welcome applications from students who have external funding or are self-funded, including those pursuing the M.A. only.*

MULTI-YEAR FUNDING PACKAGE

If you apply to the History of Science, Medicine, and Technology (HSMT) Ph.D. degree program without external or self-funding and are accepted, you will be offered a multi-year support package, which begins in your first year. The details of our support guarantees may vary by funding source, field of study, and other circumstances, and the guarantee is, of course, contingent on satisfactory progress and performance. Most of our support packages offer 5 years of support and begin with a fellowship year from the UW–Madison Graduate School, generously funded by the Wisconsin Alumni Research Foundation (<http://www.warf.org/stewardship/grants-support/current/current-grant.cmsx>). Our most distinguished packages include two years of fellowships:

- Graduate Research Scholar fellowships (<http://ls.wisc.edu/current-students/graduate-students/cgrs>) for underrepresented students or first-generation college students—offered annually
- John A. Neu Fellowship in the History of Science, Medicine, and Technology—offered as endowment income permits

Additional years of guaranteed funding will come from employment as teaching assistants or project assistants or additional fellowships.

COMPETING FOR ADDITIONAL SUPPORT

All students in good standing can apply for writing prizes, conference travel awards, and supplements to external awards. Once graduate students have passed their preliminary examination and advanced to candidacy, they may apply for various departmental fellowships and research travel funding.

Further funding opportunities are available to students who have reached the advanced stages of dissertation writing. Our advanced dissertators may apply for teaching fellowships that give them the opportunity to design and teach an undergraduate course—the Merle Curti Teaching Fellowship (<https://history.wiscweb.wisc.edu/graduate/prospective-students/funding/merle-curti-teaching-fellowship>) (open field), the George L. Mosse Teaching Fellowship in European History (<https://mosseprogram.wisc.edu/fellowships>), and the William J. Courtenay Teaching Fellowship in ancient, medieval, or early modern European history. The William Coleman Dissertation Fellowship in the History of Science (<https://history.wisc.edu/our-graduate-program/current-students/funding-opportunities>) supports one semester of advanced dissertation writing, as does the David and Greta Lindberg Distinguished Graduate Fellowship. (These fellowships are offered as

often as endowment income permits.) Thanks to funding provided by the Doris G. Quinn Foundation (<https://dorisquinnfoundation.org>), we are also pleased to offer the Doris G. Quinn Fellowship, which supports the final year of dissertation writing in any field.

In addition, UW–Madison offers a wealth of other opportunities to compete for funding offered, for example, by the International Division (<http://international.wisc.edu/funding-your-international-experiences>), the Institute for Research in the Humanities (<http://irh.wisc.edu/fellowships/dissertation>), and the UW Graduate School (research and conference travel awards (<https://grad.wisc.edu/studentfunding/grantscomp>)).

More details on our funding for current/continuing students are available here (<https://history.wiscweb.wisc.edu/our-graduate-program/current-students/funding-opportunities>).

* If you wish to apply only for the HSMT M.A. (the so-called terminal M.A.) or for the M.A. in History of Medicine for Health Professionals, please describe your sources of support on the History Supplemental Application. For information on the cost of graduate study at UW–Madison, see this link (<https://grad.wisc.edu/admissions/cost>).

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement	51 credits
Minimum Residence Credit Requirement	32 credits
Minimum Graduate Coursework Requirement	Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.
Overall Graduate GPA Requirement	3.25 GPA required.
Other Grade Requirements	The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.
Assessments and Examinations	In order to receive the History Ph.D., all students must pass the preliminary exam and the Ph.D. dissertation defense. Preliminary Examination: Each field of study has its own exact requirements for prelims, but all include written exams and an oral defense of the student's research proposal and knowledge of the field. Ph.D. Dissertation Defense: Two-hour oral exam focusing on the student's written dissertation.
Language Requirements	The HSMT Ph.D. requires proficiency in two foreign languages. (Students who are working toward a degree as part of a combined M.D./Ph.D. program only need to demonstrate proficiency in one language.) The candidate must have demonstrated proficiency in one language in order to pass the Second-Year Review and must demonstrate proficiency in the second language before achieving dissertator (ABD) status. ABD status, with its attendant reduction in tuition, is contingent upon satisfying the two-language requirement. The two languages are normally French and German; other languages, including quantitative methods, may be substituted when appropriate, by approval of the advisor. Substitutions require early action on the part of the student. Detailed further Ph.D. language requirements can be found in the Graduate Program Handbook (https://history.wiscweb.wisc.edu/wp-content/uploads/sites/202/2017/05/graduate-handbook2017-18.pdf).
Doctoral Minor/Breadth Requirements	All doctoral students are required to complete a minor (9 credits minimum).

REQUIRED COURSES

In addition to completing the M.A. course requirements (below), Ph.D. students must complete their doctoral minor (9 credits) and gain

proficiency in a second foreign language prior to taking the preliminary examination. After passing the preliminary examination, students register for 990 (Research and Thesis) credits every semester until they deposit their dissertation.

M.A. Course Requirements

Code	Title	Credits
Required Courses		
HIST SCI 720	Proseminar: Historiography and Methods	3
HISTORY 701	History in a Global Perspective	1
HISTORY 800	Research Seminar in History (or an equivalent research seminar)	3
One course in at least four of the following distribution areas:		12
Science: Ancient through the Enlightenment		
Modern Science and Technology		
Medicine and Public Health		
Transnational Science and Medicine		
Race, Gender, Class, and Religion in Science and Medicine		
All HIST SCI Courses (http://guide.wisc.edu/courses/hist_sci)		
Electives		11
Work with advisor to complete 11 additional credits in courses greater than 700		
Total Credits		30

History of Medicine Specialization ¹

This specialization within the M.A. is intended for students with doctoral training in one of the health professions who wish to pursue a master's degree in the history of medicine.

Code	Title	Credits
Required Courses		
HIST SCI 720	Proseminar: Historiography and Methods	3
HIST SCI/HISTORY/MED HIST 504	Society and Health Care in American History	3
HIST SCI/HISTORY/MED HIST 507	Health, Disease and Healing I	3-4
HIST SCI/HISTORY/MED HIST 508	Health, Disease and Healing II	3-4
STS 901	Science, Technology and Medicine in Society	3
Additional History of Medicine course		3
All Medical History Courses (http://guide.wisc.edu/courses/med_hist)		
Additional History of Science course (300-600 level or above)		3
All History of Science Courses (http://guide.wisc.edu/courses/hist_sci)		
Electives		9
Total Credits		30-32

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do

not appear in the Graduate School admissions application, and they will not appear on the transcript.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PROGRAM RESOURCES

The Department of History is committed to training our students to develop skills required for a variety of careers both in and outside the academy. Although a large network of our alumni teach at colleges and universities in the U.S. and across the world, a number of our Ph.D.s have enjoyed considerable success outside the academy. They include recent graduates who are currently a museum curator, teachers at prestigious preparatory academies, a historian with the U.S. Secretary of Defense's POW/Missing Persons Agency, a CEO of an investment firm, an analyst for a defense contractor, an editor at a small press, and consultants working with non-profits in the human services, education, and public policy fields. In recent years we have undertaken a number of initiatives, detailed below, to broaden the training of our students for a wide array of careers.

Much of the preparation for the job market occurs informally and over the course of the student's graduate career—in the mentoring relationship between faculty advisor and student, in the presentation of student research in department venues, in the student's participation in professional conferences, and in early forms of professional publication. Coursework, such as for the minor requirement or certificates, can be an avenue to expanded competencies. The Center for Humanities, for example, offers a Public Humanities certificate (<http://humanities.wisc.edu/public-humanities/graduate-certificate>). Be sure to explore the Graduate School's resources such as "The Versatile PhD" (<https://grad.wisc.edu/pd/versatilephd>) and its Professional Development pages (<http://grad.wisc.edu/pd>).

Whatever career paths interest you, we encourage you to plan ahead and discuss your options—early and often—with your faculty advisor(s), with the Director of Graduate Studies, or with the Graduate Coordinator.

PROFESSIONAL DEVELOPMENT SEMINARS (HISTORY 710)

This topics seminar, created in 2014-2015, is offered every semester. It emphasizes building skills that are valuable both inside and outside the academy, such as managing the writing process, teaching college history, or communicating historical research to a broad, nonspecialist audience. Since it is a topics course, more than one may be offered in a given semester. Recent topics include "Writing for Academy and Beyond," "Digital History," and "On the Job Market."

PROFESSIONAL DEVELOPMENT EVENTS

Throughout the year, the Graduate Program sponsors various workshops intended to help students negotiate specific milestones of graduate study and to assist them in preparing for and going on the job market as they near completion of the Ph.D. Our programming currently includes:

Preliminary Examination Workshop

This offers a discussion of the various requirements for preliminary examinations: how to assemble committees, compiling reading lists, Graduate School requirements, and more.

Curriculum Vitae Workshops

These workshops are designed for students at all levels, ranging from first-year students writing CVs for campus positions to advanced dissertators on the job market.

Mock Interviews

The Graduate Program offers a series of opportunities to practice with a committee of our faculty for AHA interviews and on-campus job talks. They are open to a limited number of students who expect to be actively on the job market in the fall.

Careers in History Workshops

Our program is committed to helping its graduates seek and secure employment following the completion of their Ph.D. Since the financial crisis in 2008, the academic job market has softened markedly. While the Graduate Program continues to provide outstanding preparation for academic jobs, we also encourage our students to think more broadly about their career prospects and the transferability of their skills. As funds permit, we occasionally bring to campus History graduates who are working in the non-profit, private, or public-sector to meet with current graduate students and share their experience. We also offer opportunities to learn best practices for post-doctoral fellowship applications.

LEARNING OUTCOMES

1. Articulates research problems clearly and understands the limits of current theories, knowledge, or practices within HSMT.
2. Pushes the boundaries of current knowledge in HSMT in formulating research questions, in the selection or use of primary sources, or in interpreting evidence.
3. Demonstrates breadth within their learning experiences.
4. Communicates complex ideas in a clear and understandable manner.
5. Gains appropriate experience relating to designing and teaching university-level courses.
6. Is able to articulate the broader significance of their work and the discipline of HSMT to scholars in other fields or disciplines and to the wider public.
7. Fosters ethical and professional conduct.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://history.wiscweb.wisc.edu/wp-content/uploads/sites/202/2017/05/graduate-handbook2017-18.pdf>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

Total credits transferred for the Ph.D. requirements, including those approved for the M.A., may not exceed 19 credits. No credits earned more than ten years before admission to the Ph.D. program may be used. A maximum of 5 credits earned between five and ten years before admission to the Ph.D. program may be used. No credits carrying a grade below B may be applied toward graduate credit requirements.

UW–Madison Undergraduate

No credits from a previous undergraduate degree are allowed to count toward our graduate degree.

UW–Madison University Special

With program approval, students are allowed to count no more than 9 credits of coursework numbered 300 or above taken as a UW–Madison University Special student. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements. No credits carrying a grade below B are transferable.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. An advisor is a faculty member, or sometimes a committee of advisors, from the major department responsible for providing advice regarding graduate studies. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis. Students can be suspended from the Graduate School if they do not have an advisor.

Ph.D. Dissertation Committee: The committee must have at least four members; normally in the Department of History the committee is composed of five. Three members must be History faculty (<https://history.wisc.edu/faculty.htm>) or affiliates (https://history.wisc.edu/faculty_affiliates.htm) (the advisor and two others). At least one other member must be a UW–Madison faculty member from another department; History faculty holding joint appointments may serve as the faculty member from another department. Emeriti faculty who are within one year of their retirement date may serve as a full member of a four-person committee. If the committee has five members, the fifth faculty member may be emeritus or a “qualified outsider,” as determined by the student’s major professor (e.g., a professor from another university or a person with expertise relevant to the dissertation). With faculty approval, students may choose to have two faculty designated as co-advisors of their dissertation.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

OTHER

Part time enrollment is permitted, full time preferred.

PEOPLE

Faculty: Professors Boswell (chair), Chamberlain, Cronon, Dennis, Desan, Dunlavy, Enke, Enstad, Hansen, Hirsch, Hsia, Johnson, Kantrowitz, Keller, Kleijwegt, Koshar, Lederer, McCoy, McDonald, Michels, Mitman, Neville, Nyhart, Plummer, Reese, Roberts, Sharpless, Shoemaker, Sommerville, Sweet, Thal, Wandel, Wink, Young; Associate Professors Chan, Cheng, Enke, Hall, Houck, Ipsen, Kim, Kodesh, Murthy, Ratner-Rosenhagen, Taylor, Ussishkin; Assistant Professors Bitzan, Brown, Callaci, Chamedes, Ciancia, Gómez, Haynes, Hennessy, Hicks, Iber, Jackson, Kinzley, Lapina, Murthy, Nelson, Whiting

See our faculty profiles - alphabetical (<https://history.wisc.edu/people-main/faculty-listed-alphabetically>) and by specialty (<https://history.wisc.edu/people-main/faculty-by-area-of-specialty>).

Faculty Affiliates and Teaching Associates: Carlsson, Chopra, Clark-Pujara, Cullinane, Ermakoff, Greene, Keyser, Nelson (A.), Rider, Sharafi

See our faculty affiliate (<https://history.wisc.edu/people-main/faculty-affiliates>) and teaching associate (<https://history.wisc.edu/people-main/teaching-associates>) profiles.

HISTORY, DOCTORAL MINOR

Students in other degree programs who wish to pursue a minor in the History degree program must reach an agreement on an appropriate plan of study with a History faculty member, who serves as the minor advisor. The “Minor Agreement for Non-History Majors” form can be found on the Department of History’s website (<https://history.wisc.edu/our-graduate-program/current-students/graduate-program-policies-procedures-forms>), and must be approved by the Graduate Program Coordinator and the Director of Graduate Studies prior to the beginning of coursework.

REQUIREMENTS

CREDITS REQUIRED: 9

Any History (<http://guide.wisc.edu/courses/history>) courses that fit within the following criteria may be used to fulfill the 9-credit requirement:

- At least 6 credits in graduate seminars, and no more than 3 credits in undergraduate courses.
- HISTORY 990 Research and Thesis may not be used to fulfill the minor requirement
- The minor field may include up to 3 credits of HISTORY 999 Independent Work, provided that the student produces at least 15 pages of written work

PEOPLE

Faculty: Professors Boswell (chair), Chamberlain, Cronon, Dennis, Desan, Dunlavy, Enke, Enstad, Hansen, Hirsch, Hsia, Johnson, Kantrowitz, Keller, Kleijwegt, Koshar, Lederer, McCoy, McDonald, Michels, Mitman, Neville, Nyhart, Plummer, Reese, Roberts, Sharpless, Shoemaker, Sommerville, Sweet, Thal, Wandel, Wink, Young; Associate Professors Chan, Cheng, Enke, Hall, Houck, Ipsen, Kim, Kodesh, Murthy, Ratner-Rosenhagen, Taylor, Ussishkin; Assistant Professors Bitzan, Brown, Callaci, Chamedes, Ciancia, Gómez, Haynes, Hennessy, Hicks, Iber, Jackson, Kinzley, Lapina, Murthy, Nelson, Whiting

See our faculty profiles - alphabetical (<https://history.wisc.edu/people-main/faculty-listed-alphabetically>) and by specialty (<https://history.wisc.edu/people-main/faculty-by-area-of-specialty>).

Faculty Affiliates and Teaching Associates: Carlsson, Chopra, Clark-Pujara, Cullinane, Ermakoff, Greene, Keyser, Nelson (A.), Rider, Sharafi

See our faculty affiliate (<https://history.wisc.edu/people-main/faculty-affiliates>) and teaching associate (<https://history.wisc.edu/people-main/teaching-associates>) profiles.

HISTORY, M.A.

With some 160 graduate students and nearly 60 faculty members, the Department of History is home to one of the oldest, most distinguished, and most comprehensive graduate programs in the U.S., renowned for its long and valued tradition of collegiality and openness. Joining our ranks this year are the faculty and graduate students in the former Department of History of Science, Medicine, and Technology, one of the broadest, most prestigious academic programs of its kind in the United States. All told, our internationally recognized faculty (<https://history.wiscweb.wisc.edu/people-main/faculty-listed-alphabetically>) has been mentoring distinguished historians since 1893 (<https://history.wiscweb.wisc.edu/our-graduate-program/ph-d-s-awarded>).

Our degree program in History is designed to meet the needs of the Ph.D. candidate, and we offer funding (<https://history.wiscweb.wisc.edu/graduate/prospective-students/funding>) only to students who intend to pursue the Ph.D. However, we also welcome applications from students who wish to earn only the M.A. if they have external funding or are self-funded.

Graduate training in the History degree program is organized by primary fields of study. Although most of our students are trained in a single field of study, students whose research interests span more than one field have the option to craft an individual plan of study (<https://history.wiscweb.wisc.edu/graduate/individual-plan-of-study>).

We offer the following primary fields of study (<https://history.wiscweb.wisc.edu/fields-programs>) in the History degree program:

- African History
- East Asian History
- European History—Ancient, Medieval, Early Modern, and Modern
- Latin American and Caribbean History
- Middle Eastern History
- South Asian History
- Southeast Asian History
- United States History

Within their primary field of study, students also have the opportunity to organize their studies thematically. Our faculty's special thematic strengths (<https://history.wiscweb.wisc.edu/people-main/faculty-by-area-of-specialty>) are in:

- Borderlands and diasporas
- Environmental history
- Gender and Women's History, Program in (p. 712)
- History of Science, Medicine, and Technology (<https://history.wisc.edu/fields-programs-and-working-groups/history-of-science-medicine-and-technology/faculty-associates-affiliates>)
- Intellectual and cultural history
- Labor and political economy
- Military, war, and society
- Race, ethnicity, and indigeneity
- Religion and ritual

Our faculty train resourceful researchers, committed teachers, and engaged public intellectuals. We offer a rigorous course of study that combines independent and collaborative work and that emphasizes scholarly and intellectual connectedness. The department strongly supports the Wisconsin Idea (<https://www.wisc.edu/wisconsin-idea>), the principle that education should influence and improve people's lives beyond the university classroom. For more than 100 years, this idea has guided the university's work. Students pursue a variety of careers, both inside and outside the academy.

OTHER DEGREE OPTIONS INCLUDE: BRIDGE PROGRAM WITH UW–MADISON'S DEPARTMENT OF AFRO-AMERICAN STUDIES

This academic partnership is designed to allow students to complete the M.A. in the Department of Afro-American Studies and the Ph.D. in History. It enables the Afro-American Studies student who specializes in the History area to meet the basic requirements of the History M.A. while completing a degree in Afro-American Studies. Students may apply simultaneously to the two departments or may apply to the Department of History after they begin their program in the Department of Afro-American Studies, usually in the fall of the first or second M.A. year.

For details, see The Bridge Program (<https://history.wiscweb.wisc.edu/our-graduate-program/bridge-program>) or contact the graduate program coordinator.

PROGRAM IN GENDER AND WOMEN'S HISTORY (PGWH)

Working under the supervision of a PGWH faculty member, PGWH students organize their studies in their primary field to emphasize gender,

women's history, or sexuality. They meet all the requirements of their primary field of study, take the PGWH core seminar on transnational gender history, and take at least two additional History graduate seminars that are gender-specific.

Students may enter this concentration through any of the department's primary fields of study. Students who wish to be considered for the concentration in gender and women's history should indicate this on their Graduate School application.

For more details, see Program in Gender and Women's History (<https://history.wisc.edu/fields-programs-and-working-groups/program-in-gender-and-womens-history>) or contact the graduate program coordinator.

ADMISSIONS

All applicants must meet UW–Madison Graduate School's minimum applicant requirements (<https://grad.wisc.edu/admissions/requirements>), in addition to the below History Graduate Program requirements described below.

APPLICATION DEADLINE: DECEMBER 1

To apply, applicants must submit or declare the following in the online application (<https://grad.wisc.edu/apply>):

History Supplemental Application

This section of the application asks you to provide information about your research interests, declare your preferred faculty advisors, and outline your prior language preparation (if any).

Writing Sample

Provide a sample that best illustrates the quality of your written work (optimally no more than 50 pages, double-spaced; maximum file size 6 MB).

Transcripts

Upload an unofficial copy of your transcript from all institutions attended, showing any undergraduate and graduate degrees awarded. If accepted, you will be required to send two official transcripts from each institution.

Graduate Record Examination (GRE) scores

GRE test scores are required for admission to our program, and the test must have been taken within the last 5 years. Students requesting a waiver (e.g., international applicants) should contact the Director of Graduate Studies (<https://history.wisc.edu/people/dunlavy-colleen>).

CV or Resumé

This should highlight your accomplishments and qualifications including academic honors or distinctions; professional, research, and/or teaching experience; and any publications.

Letters of recommendation

Provide contact information for the three individuals who will furnish recommendations on your behalf. (They will receive an upload link by email.) Your letter writers need not be historians, but they should be able to speak to your academic preparation to pursue historical studies at the graduate level.

Statement of purpose

The statement of purpose (2–3 pages, double-spaced) explains your reasons for graduate study. It may be the hardest part of the application to write, but it is also the most important. While you will likely include some autobiographical information, its primary purpose is to acquaint

us with how your mind works. We want to know, for example, what kinds of intellectual problems and issues interest you, whose stories intrigue you, what sorts of analytical or narrative approaches you like to pursue, which historical writings you admire—and your reasons for these various preferences. Please help us understand your decision to enter the historical profession, especially at a time when the academic job market is in decline, and how you see your own role in it. There is no single right way to approach this part of the application, but we suggest that you bear in mind the usual cautions for personal writing: speak straightforwardly, in your own voice, and write as well as you know how.

INTERNATIONAL APPLICANTS

All international applicants must also meet the **English Proficiency** requirements (<https://grad.wisc.edu/admissions/requirements>) set forth by the Graduate School.

For additional detail about the admissions process, please visit the Prospective Student (<https://history.wisc.edu/our-graduate-program/prospective-students>) pages on our website.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

We offer funding only to students who intend to pursue the Ph.D.—an application for admission to our Ph.D. program, therefore, is an application for funding. We also welcome applications from students who have external funding or are self-funded, including those pursuing the M.A. only.*

MULTI-YEAR FUNDING PACKAGE

If you apply to the History Ph.D. degree program without external or self-funding and are accepted, you will be offered a multiyear support package, which begins in your first year. The details of our support guarantees may vary by funding source, field of study, and other circumstances, and the guarantee is, of course, contingent on satisfactory progress and performance. Most of our support packages offer 5 years of support and begin with a fellowship year from the UW–Madison Graduate School, generously funded by the Wisconsin Alumni Research Foundation (<http://www.warf.org/stewardship/grants-support/current/current-grant.cmsx>). Our most distinguished packages include two years of fellowships and may also include summer support:

- Graduate Research Scholar fellowships (<http://ls.wisc.edu/current-students/graduate-students/cgrs>) for underrepresented students or first-generation college students—offered annually

- George L. Mosse fellowships (<https://mosseprogram.wisc.edu/fellowships>) in modern Jewish history, European cultural history, or LGBTQ history—offered annually or as endowment income permits
- Julie A. and Peter M. Weil Fellowship (<https://history.wisc.edu/our-graduate-program/prospective-students/julie-a-and-peter-m-weil-distinguished-graduate-fellowship>) in American Jewish history and select U.S. history fields—offered annually or as endowment income permits
- William J. Courtenay Fellowship in Medieval history—offered as funds permit
- Gerda Lerner Fellowship (<https://history.wiscweb.wisc.edu/2013/01/02/gerda-lerner-a-feminist-historian-uw-madison-emeritus-dies-at-92>) in women's history—offered as funds permit

Additional years of guaranteed funding will come from employment as teaching assistants or project assistants or additional fellowships.

COMPETING FOR ADDITIONAL SUPPORT

All students in good standing can apply for writing prizes, conference travel awards, and supplements to external awards. Once graduate students have passed their preliminary examination and advanced to candidacy, they may apply for various departmental fellowships and research travel funding.

For students who have reached the advanced stages of dissertation writing, further funding opportunities are available. Our advanced dissertators may apply for teaching fellowships that give them the opportunity to design and teach an undergraduate course—the Merle Curti Teaching Fellowship (<https://history.wiscweb.wisc.edu/graduate/prospective-students/funding/merle-curti-teaching-fellowship>) (any field of study), the George L. Mosse Teaching Fellowship in European History (<https://mosseprogram.wisc.edu/fellowships>), and the William J. Courtenay Teaching Fellowship in ancient, medieval, or early modern European history. (These fellowships are offered as often as endowment income permits.) Thanks to funding provided by the Doris G. Quinn Foundation (<https://dorisgquinnfoundation.org>), we are also pleased to offer the Doris G. Quinn Fellowship, which provides financial support for the final year of dissertation writing in any field.

In addition, UW–Madison offers a wealth of other opportunities to compete for funding offered, for example, by the International Division (<http://international.wisc.edu/funding-your-international-experiences>), the Institute for Research in the Humanities (<http://irh.wisc.edu/fellowships/dissertation>), and the UW Graduate School (research and conference travel awards (<https://grad.wisc.edu/studentfunding/grantscomp>)).

More details on our funding for current/continuing students are available here (<https://history.wiscweb.wisc.edu/our-graduate-program/current-students/funding-opportunities>).

* If you wish to apply only for the History M.A., please describe your sources of support on the History Supplemental Application. For information on the cost of graduate study at UW–Madison, see this link (<https://grad.wisc.edu/admissions/cost>).

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 24 credits

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 (3.25 after 4th semester of full-time study)

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations In order to receive the Master's Degree in History, students must pass the Second-Year Review (SYR). A passing review requires that students: complete a 35-page research paper, fulfill one language requirement, complete 30 graduate credits, clear all incompletes, fulfill any additional requirements for their specific field of study, submit a list of prelim fields along with a timeline for completing prelims, and receive a positive endorsement from the three faculty members on the review committee.

Language Requirements All students must demonstrate, at a minimum, reading knowledge of at least one language other than English. Each field of study determines which languages may be used to satisfy the language requirement; see our Graduate Program Handbook (<https://history.wiscweb.wisc.edu/wp-content/uploads/sites/202/2017/05/graduate-handbook2017-18.pdf>) for details.

REQUIRED COURSES

Code	Title	Credits
Required Courses		
HISTORY 701	History in a Global Perspective	1
HISTORY 800	Research Seminar in History (or an equivalent research seminar in the student's field of study)	3
Electives		
Work with advisor to complete 26 credits of graduate-level courses		26
All History Courses (http://guide.wisc.edu/courses/history)		
Total Credits		30

• Additional M.A. Requirements by fields of study¹

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

African History

Course Requirements: Each student must enroll in a seminar or proseminar (if available) every semester of residence. In their first year, they may enroll in History lecture courses in their area of specialization. Undergraduate lecture courses may not be taken for credit after the first year of graduate study.

Language Requirements: Students must fulfill their M.A. language requirement with an African language.

East Asian History

Course Requirements: Students must complete four graduate courses in East Asian history. These can be upper-division lecture courses or graduate seminars/colloquia (taken for a minimum of 12 credits). At least two of these courses should be in the major field, and at least one should be outside the major field. NOTE: Students should also begin fulfilling the

course requirements that must be completed prior to taking preliminary examination. They are required to take one semester each of Chinese, Japanese, and Korean history. They may fulfill this requirement by taking a graduate seminar or an upper-division lecture course. They may also fulfill the requirement by serving as a TA in either an introductory or upper-division course. Students are also required to take HISTORY 703 History and Theory.

Language Requirements: Students must complete the eighth semester in their main language (Chinese, Japanese, or Korean) by the time they either undergo the Second-Year Review or complete their fourth semester of coursework.

European History

Language Requirements: Students in Medieval History must demonstrate proficiency in two foreign languages, usually one medieval and one modern.

Latin American and Caribbean History

Course Requirements: Each student must enroll in a seminar or proseminar (if available) every semester of residence. Other courses will include History graduate seminars or similar courses in the culture area of specialization. Undergraduate lecture courses may not be taken for credit unless a faculty advisor or co-advisor approves.

South Asian History

Course Requirements: Each student must enroll in a seminar or proseminar (if available) every semester of residence. In lieu of a History graduate course, they may substitute an independent study in History or a graduate seminar in another department. In their first year, they may enroll in History lecture courses in their area of specialization. Undergraduate lecture courses may not be taken for credit after the first year of graduate study.

Language Requirements: Students must complete two years of study in one South Asian language (or demonstrate equivalent proficiency by examination).

Southeast Asian History

Course Requirements: M.A. students shall take six credits of graduate seminar in Southeast Asian history each academic year or, if not available, substitute credits of independent study with a faculty specialist in Southeast Asian history.

Language Requirements: Students must complete two years of study (or demonstrate equivalent proficiency by examination) in a Southeast Asian language or, with the approval of the Southeast Asian faculty, in a relevant colonial/imperial language.

United States History

Course Requirements: Students must take:

- The core seminar, HISTORY 900 Introduction to History for U.S. Historians, in the fall semester of their first year. This seminar introduces students to the U.S. History faculty and their fields of research and teaches students the core skills of professional historians.
- Three three-credit seminars that cover a significant portion of the seventeenth and/or eighteenth centuries, the nineteenth century, and the twentieth century, respectively. If a seminar falls into more than one category, the student may choose the single category for which they will receive credit.

In exceptional circumstances, student may, with the consent of their advisor, take up to six credits in upper-level undergraduate courses. The

instructors of such courses have the prerogative to refuse admission to graduate students. NOTE: Prior to completing their preliminary examination, students may use no more than six credits of HISTORY 999 Independent Work to meet the requirements of the major field. Students will probably find it useful to preserve most, if not all, of their six credits of HISTORY 999 for preliminary examination preparation.

Program in Gender and Women's History Concentration

Course Requirements: Students must meet the requirements of their primary field of study; take HISTORY 752 Seminar in Transnational Gender History; and take at least two additional History graduate seminars that are gender-specific, i.e., that have at least a 50% focus on issues and analyses of gender, women, or sexuality.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://history.wiscweb.wisc.edu/wp-content/uploads/sites/202/2017/05/graduate-handbook2017-18.pdf>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count up to 6 credits of graduate coursework from other institutions.

UW–Madison Undergraduate

With program approval, students are allowed to count up to 7 credits of UW–Madison undergraduate coursework (numbered 300 and above).

UW–Madison University Special

With program approval, students are allowed to count 15 credits (numbered 300 or above) of coursework taken as a UW–Madison University Special student.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. An advisor is a faculty member, or sometimes a committee of advisors, from the major department responsible for providing advice regarding graduate studies. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them

to meet with their advisor on a regular basis. Students can be suspended from the Graduate School if they do not have an advisor.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

The department generally accepts only those students to whom it can offer a multi-year guarantee of support. These guarantees may vary by funding source, field, and other circumstances, and they are contingent on satisfactory progress and performance. Applicants with access to external resources that can support their graduate study should provide details on the Supplemental Application.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PROGRAM RESOURCES

The Department of History is committed to training our students to develop skills required for a variety of careers both in and outside the academy. Although a large network of our alumni teach at colleges and universities in the U.S. and across the world, a number of our Ph.D.s have enjoyed considerable success outside the academy. They include recent graduates who are currently a museum curator, teachers at prestigious preparatory academies, a historian with the U.S. Secretary of Defense's POW/Missing Persons Agency, a CEO of an investment firm, an analyst for a defense contractor, an editor at a small press, and consultants working with non-profits in the human services, education, and public policy fields. In recent years we have undertaken a number of initiatives, detailed below, to broaden the training of our students for a wide array of careers.

Much of the preparation for the job market occurs informally and over the course of the student's graduate career—in the mentoring relationship between faculty advisor and student, in the presentation of student research in department venues, in the student's participation in professional conferences, and in early forms of professional publication. Coursework, such as for the minor requirement or certificates, can be an avenue to expanded competencies. The Center for Humanities, for example, offers a Public Humanities certificate (<http://humanities.wisc.edu/public-humanities/graduate-certificate>). Be sure to explore the Graduate School's resources such as "The Versatile PhD (<https://grad.wisc.edu/pd/versatilephd>)" and its Professional Development pages (<http://grad.wisc.edu/pd>).

Whatever career paths interest you, we encourage you to plan ahead and discuss your options—early and often—with your faculty advisor(s), with the Director of Graduate Studies, or with the Graduate Coordinator.

PROFESSIONAL DEVELOPMENT SEMINARS (HISTORY 710)

This topics seminar, created in 2014-2015, is offered every semester. It emphasizes building skills that are valuable both inside and outside the academy, such as managing the writing process, teaching college history, or communicating historical research to a broad, nonspecialist audience. Since it is a topics course, more than one may be offered in a given semester. Recent topics include "Writing for Academy and Beyond," "Digital History," and "On the Job Market."

PROFESSIONAL DEVELOPMENT EVENTS

Throughout the year, the Graduate Program sponsors various workshops intended to help students negotiate specific milestones of graduate study and to assist them in preparing for and going on the job market as they near completion of the Ph.D. Our programming currently includes:

Preliminary Examination Workshop

This offers a discussion of the various requirements for preliminary examinations: how to assemble committees, compiling reading lists, Graduate School requirements, and more.

Curriculum Vitae Workshops

These workshops are designed for students at all levels, ranging from first-year students writing CVs for campus positions to advanced dissertators on the job market.

Mock Interviews

The Graduate Program offers a series of opportunities to practice with a committee of our faculty for AHA interviews and on-campus job talks. They are open to a limited number of students who expect to be actively on the job market in the fall.

Careers in History Workshops

Our program is committed to helping its graduates seek and secure employment following the completion of their Ph.D. Since the financial crisis in 2008, the academic job market has softened markedly. While the Graduate Program continues to provide outstanding preparation for academic jobs, we also encourage our students to think more broadly about their career prospects and the transferability of their skills. As funds permit, we occasionally bring to campus History graduates who are working in the non-profit, private, or public-sector to meet with current graduate students and share their experience. We also offer opportunities to learn best practices for post-doctoral fellowship applications.

LEARNING OUTCOMES

1. Articulates and critiques the theories, research methods, and approaches to historical inquiry in the student's primary field of study.
2. Demonstrates understanding of the primary field of study in a historical and global context.
3. Is able to identify and make appropriate use of relevant historical sources.
4. Demonstrates the ability to evaluate and synthesize large bodies of scholarship or evidence.

5. Is able to construct a significant and persuasive historical argument that makes an original contribution to historical knowledge.
6. Communicates complex ideas in a clear and understandable manner.
7. Recognizes and applies established principles of ethical and professional conduct.

PEOPLE

Faculty: Professors Boswell (chair), Chamberlain, Cronon, Dennis, Desan, Dunlavy, Enke, Enstad, Hansen, Hirsch, Hsia, Johnson, Kantrowitz, Keller, Kleijwegt, Koshar, Lederer, McCoy, McDonald, Michels, Mitman, Neville, Nyhart, Plummer, Reese, Roberts, Sharpless, Shoemaker, Sommerville, Sweet, Thal, Wandel, Wink, Young; Associate Professors Chan, Cheng, Enke, Hall, Houck, Ipsen, Kim, Kodesh, Murthy, Ratner-Rosenhagen, Taylor, Ussishkin; Assistant Professors Bitzan, Brown, Callaci, Chamedes, Ciancia, Gómez, Haynes, Hennessy, Hicks, Iber, Jackson, Kinzley, Lapina, Murthy, Nelson, Whiting

See our faculty profiles - alphabetical (<https://history.wisc.edu/people-main/faculty-listed-alphabetically>) and by specialty (<https://history.wisc.edu/people-main/faculty-by-area-of-specialty>).

Faculty Affiliates and Teaching Associates: Carlsson, Chopra, Clark-Pujara, Cullinane, Ermakoff, Greene, Keyser, Nelson (A.), Rider, Sharafi

See our faculty affiliate (<https://history.wisc.edu/people-main/faculty-affiliates>) and teaching associate (<https://history.wisc.edu/people-main/teaching-associates>) profiles.

HISTORY, PH.D.

With some 160 graduate students and nearly 60 faculty members, the Department of History is home to one of the oldest, most distinguished, and most comprehensive graduate programs in the U.S., renowned for its long and valued tradition of collegiality and openness. Joining our ranks this year are the faculty and graduate students in the former Department of History of Science, Medicine, and Technology, one of the broadest, most prestigious academic programs of its kind in the United States. All told, our internationally recognized faculty (<https://history.wiscweb.wisc.edu/people-main/faculty-listed-alphabetically>) has been mentoring distinguished historians since 1893 (<https://history.wiscweb.wisc.edu/our-graduate-program/ph-d-s-awarded>).

Our degree program in History is designed to meet the needs of the Ph.D. candidate, and we offer funding (<https://history.wiscweb.wisc.edu/graduate/prospective-students/funding>) only to students who intend to pursue the Ph.D. However, we also welcome applications from students who wish to earn only the M.A. if they have external funding or are self-funded.

Graduate training in the History degree program is organized by primary fields of study. Although most of our students are trained in a single field of study, students whose research interests span more than one field have the option to craft an individual plan of study (<https://history.wiscweb.wisc.edu/graduate/individual-plan-of-study>).

We offer the following primary fields of study (<https://history.wiscweb.wisc.edu/fields-programs>) in the History degree program:

- African History
- East Asian History
- European History—Ancient, Medieval, Early Modern, and Modern
- Latin American and Caribbean History
- Middle Eastern History
- South Asian History
- Southeast Asian History
- United States History

Within their primary field of study, students also have the opportunity to organize their studies thematically. Our faculty's special thematic strengths (<https://history.wiscweb.wisc.edu/people-main/faculty-by-area-of-specialty>) are in:

- Borderlands and diasporas
- Environmental history
- Gender and Women's History, Program in (p. 718)
- History of Science, Medicine, and Technology (<https://history.wisc.edu/fields-programs-and-working-groups/history-of-science-medicine-and-technology/faculty-associates-affiliates>)
- Intellectual and cultural history
- Labor and political economy
- Military, war, and society
- Race, ethnicity, and indigeneity
- Religion and ritual

Our faculty train resourceful researchers, committed teachers, and engaged public intellectuals. We offer a rigorous course of study that combines independent and collaborative work and that emphasizes scholarly and intellectual connectedness. The department strongly supports the Wisconsin Idea (<https://www.wisc.edu/wisconsin-idea>), the principle that education should influence and improve people's lives beyond the university classroom. For more than 100 years, this idea has guided the university's work. Students pursue a variety of careers, both inside and outside the academy.

OTHER DEGREE OPTIONS INCLUDE: BRIDGE PROGRAM WITH UW–MADISON'S AFRO-AMERICAN STUDIES

This academic partnership designed is to allow students to complete the M.A. in Afro-American Studies and the Ph.D. in History. It enables the Afro-American Studies student who specializes in the History area to meet the basic requirements of the History M.A. while completing a degree in Afro-American Studies. Students may apply simultaneously to the two departments or may apply to the Department of History after they begin their program in the Department of Afro-American Studies, usually in the fall of the first or second M.A. year.

For details, see The Bridge Program (<https://history.wiscweb.wisc.edu/our-graduate-program/bridge-program>) or contact the graduate program coordinator.

JOINT PH.D. IN HISTORY AND HISTORY OF SCIENCE

Students who wish to obtain a joint Ph.D. in History and the History of Science, Medicine, and Technology are initially admitted to one of the degree programs, and should indicate interest in the joint Ph.D. program at that time. After completion of a master's degree in History or History of Science, Medicine, and Technology, the student applies for admission to the other degree program and, at the same time, to

a standing committee of the two programs for admission to the joint program.

Having been admitted to the other degree program and to the joint Ph.D. program, the student then applies to the Graduate School for approval of the joint Ph.D. (See the Graduate School's academic policy regarding joint degrees (<http://grad.wisc.edu/acadpolicy>) for more information and deadlines.) The student's application to the standing committee should take the same form as required by the Graduate School and should be prepared in close consultation with department faculty/staff.

Students in the joint Ph.D. program are assigned a home degree program and follow the regulations of that degree program with regard to seminar requirements, language requirements, financial aid, and regulations for satisfactory progress. Since the joint Ph.D. meets the doctoral minor requirement of the Graduate School, no formal minor is required of students receiving a joint Ph.D. However, students who wish to have a minor field recorded on the transcript may complete a regular Option A or Option B minor, or the internal minor of the department.

The joint Ph.D. student's work is supervised by a committee consisting of three faculty members (two from the home degree program). The preliminary examinations test the student's competence in both history and history of science, medicine, and technology, balancing the material and fields between the two departments (e.g. two in each, or three in one and two in the other). The number of prelim fields must equal the number required of students majoring exclusively in history or in history of science, medicine, and technology, plus one. Preparation of the Ph.D. dissertation is guided by the student's supervising committee. Satisfactory completion and defense of the dissertation constitute the final requirements for the joint Ph.D. degree.

JOINT PH.D. WITH OTHER DEGREE PROGRAMS

History degree program students who wish to pursue a joint Ph.D. (one degree, two majors) with another degree program must first be admitted to the other degree program. The proposal for the degree must be approved by the Department of History's Graduate Council before it is submitted to the Graduate School. Students admitted to a joint Ph.D. will satisfy all the normal requirements of their field in History except the minor requirement.

For more information on joint Ph.D. options, please contact the graduate program coordinator.

PROGRAM IN GENDER AND WOMEN'S HISTORY (PGWH)

Working under the supervision of a PGWH faculty member, PGWH students organize their studies in their primary field to emphasize gender, women's history, or sexuality. They meet all the requirements of their primary field of study, take the PGWH core seminar on transnational gender history, and take at least two additional History graduate seminars that are gender-specific.

Students may enter this concentration through any of the department's primary fields of study. Students who wish to be considered for the concentration in gender and women's history should indicate this on their Graduate School application.

For more details, see Program in Gender and Women's History (<https://history.wisc.edu/fields-programs-and-working-groups/program-in-gender-and-womens-history>) or contact the graduate program coordinator.

ADMISSIONS

All applicants must meet UW–Madison Graduate School's minimum applicant requirements (<https://grad.wisc.edu/admissions/requirements>), in addition to the below History Graduate Program requirements described below.

APPLICATION DEADLINE: DECEMBER 1ST

To apply, applicants must submit or declare the following in the online application (<https://grad.wisc.edu/apply>):

History Supplemental Application

This section of the application asks you to provide information about your research interests, declare your preferred faculty advisors, and outline your prior language preparation (if any).

Writing Sample

Provide a sample that best illustrates the quality of your written work (optimally no more than 50 pages, double-spaced; maximum file size 6 MB).

Transcripts

Upload an unofficial copy of your transcript from all institutions attended, showing any undergraduate and graduate degrees awarded. If accepted, you will be required to send two official transcripts from each institution.

Graduate Record Examination (GRE) scores

GRE test scores are required for admission to our program, and the test must have been taken within the last 5 years. Students requesting a waiver (e.g., international applicants) should contact the Director of Graduate Studies (<https://history.wisc.edu/people/dunlavy-colleen>).

CV or Resumé

This should highlight your accomplishments and qualifications including academic honors or distinctions; professional, research, and/or teaching experience; and any publications.

Letters of recommendation

Provide contact information for the three individuals who will furnish recommendations on your behalf. (They will receive an upload link by email.) Your letter writers need not be historians, but they should be able to speak to your academic preparation to pursue historical studies at the graduate level.

Statement of purpose

The statement of purpose (2–3 pages, double-spaced) explains your reasons for graduate study. It may be the hardest part of the application to write, but it is also the most important. While you will likely include some autobiographical information, its primary purpose is to acquaint us with how your mind works. We want to know, for example, what kinds of intellectual problems and issues interest you, whose stories intrigue you, what sorts of analytical or narrative approaches you like to pursue, which historical writings you admire—and your reasons for these various preferences. Please help us understand your decision to enter the historical profession, especially at a time when the academic job market is in decline, and how you see your own role in it. There is no single right way to approach this part of the application, but we suggest that you bear in mind the usual cautions for personal writing: speak straightforwardly, in your own voice, and write as well as you know how.

INTERNATIONAL APPLICANTS

All international applicants must also meet the **English Proficiency** requirements (<https://grad.wisc.edu/admissions/requirements>) set forth by the Graduate School.

For additional detail about the admissions process, please visit the Prospective Student (<https://history.wisc.edu/our-graduate-program/prospective-students>) pages on our website.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

We offer funding only to students who intend to pursue the Ph.D.—an application for admission to our Ph.D. program, therefore, is an application for funding. We also welcome applications from students who have external funding or are self-funded, including those pursuing the M.A. only.*

MULTI-YEAR FUNDING PACKAGE

If you apply to the History Ph.D. degree program without external or self-funding and are accepted, you will be offered a multi-year support package, which begins in your first year. The details of our support guarantees may vary by funding source, field of study, and other circumstances, and the guarantee is, of course, contingent on satisfactory progress and performance. Most of our support packages offer 5 years of support and begin with a fellowship year from the UW–Madison Graduate School, generously funded by the Wisconsin Alumni Research Foundation (<http://www.warf.org/stewardship/grants-support/current/current-grant.cmsx>). Our most distinguished packages include two years of fellowships and may also include summer support:

- Graduate Research Scholar fellowships (<http://ls.wisc.edu/current-students/graduate-students/cgrs>) for underrepresented students or first-generation college students—offered annually
- George L. Mosse fellowships (<https://mosseprogram.wisc.edu/fellowships>) in modern Jewish history, European cultural history, or LGBTQ history—offered annually or as endowment income permits
- Julie A. and Peter M. Weil Fellowship (<https://history.wisc.edu/our-graduate-program/prospective-students/julie-a-and-peter-m-weil-distinguished-graduate-fellowship>) in American Jewish history and select U.S. history fields—offered annually or as endowment income permits
- William J. Courtenay Fellowship in Medieval history—offered as funds permit

- Gerda Lerner Fellowship (<https://history.wiscweb.wisc.edu/2013/01/02/gerda-lerner-a-feminist-historian-uw-madison-emeritus-dies-at-92>) in women's history—offered as funds permit

Additional years of guaranteed funding will come from employment as teaching assistants or project assistants or additional fellowships.

COMPETING FOR ADDITIONAL SUPPORT

All students in good standing can apply for writing prizes, conference travel awards, and supplements to external awards. Once graduate students have passed their preliminary examination and advanced to candidacy, they may apply for various departmental fellowships and research travel funding.

For students who have reached the advanced stages of dissertation writing, further funding opportunities are available. Our advanced dissertators may apply for teaching fellowships that give them the opportunity to design and teach an undergraduate course – the Merle Curti Teaching Fellowship (<https://history.wiscweb.wisc.edu/graduate/prospective-students/funding/merle-curti-teaching-fellowship>) (any field of study), the George L. Mosse Teaching Fellowship in European History (<https://mosseprogram.wisc.edu/fellowships>), and the William J. Courtenay Teaching Fellowship in ancient, medieval, or early modern European history. (These fellowships are offered as often as endowment income permits.) Thanks to funding provided by the Doris G. Quinn Foundation (<https://dorisquinnfoundation.org>), we are also pleased to offer the Doris G. Quinn Fellowship, which provides financial support for the final year of dissertation writing in any field.

In addition, UW-Madison offers a wealth of other opportunities to compete for funding offered, for example, by the International Division (<http://international.wisc.edu/funding-your-international-experiences>), the Institute for Research in the Humanities (<http://irh.wisc.edu/fellowships/dissertation>), and the UW Graduate School (research and conference travel awards (<https://grad.wisc.edu/studentfunding/grantscomp>)).

More details on our funding for current/continuing students are available here (<https://history.wiscweb.wisc.edu/our-graduate-program/current-students/funding-opportunities>).

* If you wish to apply only for the History M.A., please describe your sources of support on the History Supplemental Application. For information on the cost of graduate study at UW–Madison, click here (<https://grad.wisc.edu/admissions/cost>).

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 51 credits

Minimum Residence Credit Requirement 32 credits

Minimum Graduate Coursework Requirement Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.

Overall Graduate GPA Requirement 3.25 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations In order to receive the History Ph.D., all students must pass the preliminary exam and the Ph.D. dissertation defense.

Preliminary Examination: Each field of study has its own exact requirements for prelims, but all include written exams and an oral defense of the student's research proposal and knowledge of the field.

Ph.D. Dissertation Defense: Two-hour oral exam focusing on the student's written dissertation.

Language Requirements Because knowledge of a foreign language is a valued skill and enhances cultural understanding, the history department requires all students to demonstrate, at a minimum, reading knowledge of at least one language other than English. The fields of study may set additional requirements, and each field determines which languages may be used to satisfy its requirement

Doctoral Minor/Breadth Requirements All doctoral students are required to complete a minor (minimum of 9 credits).

REQUIRED COURSES

In addition to completing any M.A. course requirements for their field of study (see below), Ph.D. students must complete their doctoral minor (9 credits) and any additional language requirements specific to their field of study prior to taking the preliminary examination. After passing the preliminary examination, students register for HISTORY 990 Research and Thesis credits every semester until they deposit their dissertation.

M.A. Course Requirements

Code	Title	Credits
Required Courses		
HISTORY 701	History in a Global Perspective	1
HISTORY 800	Research Seminar in History (or an equivalent research seminar in the student's field of study)	3
Electives		
Work with advisor to complete 26 credits of graduate-level courses		26
All History Courses (http://guide.wisc.edu/courses/history)		
Total Credits		30

• Additional M.A. Requirements by fields of study¹

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

African History

Course Requirements: Each student must enroll in a seminar or proseminar (if available) every semester of residence. In their first year, they may enroll in History lecture courses in their area of specialization. Undergraduate lecture courses may not be taken for credit after the first year of graduate study.

Language Requirements: Students must fulfill their M.A. language requirement with an African language.

East Asian History

Course Requirements: Students must complete 4 graduate courses in East Asian History. These can be upper division lecture courses or graduate seminars/colloquia (taken for a minimum of 12 credits). At least two of these courses should be in the major field, and at least one should be outside the major field. NOTE: Students should also begin fulfilling the course requirements that must be completed prior to taking preliminary examination. They are required to take one semester each of Chinese, Japanese, and Korean history. They may fulfill this requirement by taking

a graduate seminar or an upper-division lecture course. They may also fulfill the requirement by serving as a TA in either an introductory or upper-division course. Students are also required to take HISTORY 703 History and Theory.

Language Requirements: Students must complete the eighth semester in their main language (Chinese, Japanese, or Korean) by the time they either undergo the Second-Year Review or complete their fourth semester of coursework.

European History

Language Requirements: Students in Medieval History must demonstrate proficiency in two foreign languages, usually one medieval and one modern.

Latin American and Caribbean History

Course Requirements: Each student must enroll in a seminar or proseminar (if available) every semester of residence. Other courses will include History graduate seminars or similar courses in the culture area of specialization. Undergraduate lecture courses may not be taken for credit unless a faculty advisor or co-advisor approves.

South Asian History

Course Requirements: Each student must enroll in a seminar or proseminar (if available) every semester of residence. In lieu of a History graduate course, they may substitute an independent study in History or a graduate seminar in another department. In their first year, they may enroll in History lecture courses in their area of specialization. Undergraduate lecture courses may not be taken for credit after the first year of graduate study.

Language Requirements: Students must complete two years of study in one South Asian language (or demonstrate equivalent proficiency by examination).

Southeast Asian History

Course Requirements: M.A. students shall take six credits of graduate seminar in Southeast Asian history each academic year or, if not available, substitute credits of independent study with a faculty specialist in Southeast Asian history.

Language Requirements: Students must complete two years of study (or demonstrate equivalent proficiency by examination) in a Southeast Asian language or, with the approval of the Southeast Asian faculty, in a relevant colonial/imperial language.

United States History

Course Requirements: Students must take:

- The core seminar, HISTORY 900 Introduction to History for U.S. Historians, in the fall semester of their first year. This seminar introduces students to the U.S. History faculty and their fields of research and teaches students the core skills of professional historians.
- Three three-credit seminars that cover a significant portion of the seventeenth and/or eighteenth centuries, the nineteenth century, and the twentieth century, respectively. If a seminar falls into more than one category, the student may choose the single category for which they will receive credit.

In exceptional circumstances, student may, with the consent of their advisor, take up to 6 credits in upper-level undergraduate courses. The instructors of such courses have the prerogative to refuse admission to graduate students. NOTE: Prior to completing their preliminary examination, students may use no more than 6 credits of HISTORY 999

Independent Work to meet the requirements of the major field. Students will probably find it useful to preserve most, if not all, of their 6 credits of HISTORY 999 for preliminary examination preparation.

Program in Gender and Women's History Concentration

Course Requirements: Students must meet the requirements of their primary field of study; take HISTORY 752 Seminar in Transnational Gender History; and take at least two additional History graduate seminars that are gender-specific, i.e., that have at least a 50% focus on issues and analyses of gender, women, or sexuality.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://history.wiscweb.wisc.edu/wp-content/uploads/sites/202/2017/05/graduate-handbook2017-18.pdf>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count up to 12 credits of graduate coursework from other institutions.

UW–Madison Undergraduate

With program approval, students are allowed to count up to 7 credits of UW–Madison undergraduate coursework (numbered 300 and above).

UW–Madison University Special

With program approval, students are allowed to count 15 credits (numbered 300 or above) of coursework taken as a UW–Madison University Special student.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. An advisor is a faculty member, or sometimes a committee of advisors, from the major department responsible for providing advice regarding graduate studies. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis. Students can be suspended from the Graduate School if they do not have an advisor.

Ph.D. Dissertation Committee: The committee must have at least four members; normally in the Department of History the committee

is composed of five. Three members must be History faculty (<https://history.wisc.edu/faculty.htm>) or affiliates (https://history.wisc.edu/faculty_affiliates.htm) (the advisor and two others). At least one other member must be a UW–Madison faculty member from another department; History faculty holding joint appointments may serve as the faculty member from another department. Emeriti faculty who are within one year of their retirement date may serve as a full member of a four-person committee. If the committee has five members, the fifth faculty member may be emeritus or a “qualified outsider,” as determined by the student's major professor (e.g., a professor from another university or a person with expertise relevant to the dissertation). With faculty approval, students may choose to have two faculty designated as co-advisors of their dissertation.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

OTHER

The department generally accepts only those students to whom it can offer a multiyear guarantee of support. These guarantees may vary by funding source, field, and other circumstances, and they are contingent on satisfactory progress and performance. Applicants with access to external resources that can support their graduate study should provide details on the Supplemental Application.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PROGRAM RESOURCES

The Department of History is committed to training our students to develop skills required for a variety of careers both in and outside the academy. Although a large network of our alumni teach at colleges and universities in the U.S. and across the world, a number of our Ph.D.s have enjoyed considerable success outside the academy. They include recent graduates who are currently a museum curator, teachers at prestigious preparatory academies, a historian with the U.S. Secretary of Defense's POW/Missing Persons Agency, a CEO of an investment firm, an analyst for a defense contractor, an editor at a small press, and consultants working with non-profits in the human services, education, and public policy fields. In recent years we have undertaken a number of initiatives,

detailed below, to broaden the training of our students for a wide array of careers.

Much of the preparation for the job market occurs informally and over the course of the student's graduate career—in the mentoring relationship between faculty advisor and student, in the presentation of student research in department venues, in the student's participation in professional conferences, and in early forms of professional publication. Coursework, such as for the minor requirement or certificates, can be an avenue to expanded competencies. The Center for Humanities, for example, offers a Public Humanities certificate (<http://humanities.wisc.edu/public-humanities/graduate-certificate>). Be sure to explore the Graduate School's resources such as "The Versatile PhD" (<https://grad.wisc.edu/pd/versatilephd>) and its Professional Development pages (<http://grad.wisc.edu/pd>).

Whatever career paths interest you, we encourage you to plan ahead and discuss your options—early and often—with your faculty advisor(s), with the Director of Graduate Studies, or with the Graduate Coordinator.

PROFESSIONAL DEVELOPMENT SEMINARS (HISTORY 710)

This topics seminar, created in 2014-2015, is offered every semester. It emphasizes building skills that are valuable both inside and outside the academy, such as managing the writing process, teaching college history, or communicating historical research to a broad, nonspecialist audience. Since it is a topics course, more than one may be offered in a given semester. Recent topics include "Writing for Academy and Beyond," "Digital History," and "On the Job Market."

PROFESSIONAL DEVELOPMENT EVENTS

Throughout the year, the Graduate Program sponsors various workshops intended to help students negotiate specific milestones of graduate study and to assist them in preparing for and going on the job market as they near completion of the Ph.D. Our programming currently includes:

Preliminary Examination Workshop

This offers a discussion of the various requirements for preliminary examinations: how to assemble committees, compiling reading lists, Graduate School requirements, and more.

Curriculum Vitae Workshops

These workshops are designed for students at all levels, ranging from first-year students writing CVs for campus positions to advanced dissertators on the job market.

Mock Interviews

The Graduate Program offers a series of opportunities to practice with a committee of our faculty for AHA interviews and on-campus job talks. They are open to a limited number of students who expect to be actively on the job market in the fall.

Careers in History Workshops

Our program is committed to helping its graduates seek and secure employment following the completion of their Ph.D. Since the financial crisis in 2008, the academic job market has softened markedly. While the Graduate Program continues to provide outstanding preparation for academic jobs, we also encourage our students to think more broadly about their career prospects and the transferability of their skills. As funds permit, we occasionally bring to campus History graduates who are working in the non-profit, private, or public-sector to meet with current

graduate students and share their experience. We also offer opportunities to learn best practices for post-doctoral fellowship applications.

LEARNING OUTCOMES

1. Articulates research problems clearly and understands the limits of current theories, knowledge, or practices in the discipline of history.
2. Pushes the boundaries of current historical knowledge in formulating research questions, in the selection or use of primary sources, or in interpreting evidence.
3. Demonstrates breadth of historical and cultural knowledge.
4. Is able to articulate the broader significance of their work to scholars in other fields or disciplines and to the broader public.
5. Is able to design and teach courses at the undergraduate or graduate level.
6. Fosters ethical and professional conduct.

PEOPLE

Faculty: Professors Boswell (chair), Chamberlain, Cronon, Dennis, Desan, Dunlavy, Enke, Enstad, Hansen, Hirsch, Hsia, Johnson, Kantrowitz, Keller, Kleijwegt, Koshar, Lederer, McCoy, McDonald, Michels, Mitman, Neville, Nyhart, Plummer, Reese, Roberts, Sharpless, Shoemaker, Sommerville, Sweet, Thal, Wandel, Wink, Young; Associate Professors Chan, Cheng, Enke, Hall, Houck, Ipsen, Kim, Kodesh, Murthy, Ratner-Rosenhagen, Taylor, Ussishkin; Assistant Professors Bitzan, Brown, Callaci, Chamedes, Ciancia, Gómez, Haynes, Hennessy, Hicks, Iber, Jackson, Kinzley, Lapina, Murthy, Nelson, Whiting

See our faculty profiles - alphabetical (<https://history.wisc.edu/people-main/faculty-listed-alphabetically>) and by specialty (<https://history.wisc.edu/people-main/faculty-by-area-of-specialty>).

Faculty Affiliates and Teaching Associates: Carlsson, Chopra, Clark-Pujara, Cullinane, Ermakoff, Greene, Keyser, Nelson (A.), Rider, Sharafi

See our faculty affiliate (<https://history.wisc.edu/people-main/faculty-affiliates>) and teaching associate (<https://history.wisc.edu/people-main/teaching-associates>) profiles.

HORTICULTURE

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Horticulture, Doctoral Minor (p. 724)
- Horticulture, M.S. (p. 724)
- Horticulture, Ph.D. (p. 727)

PEOPLE

Faculty: Professors Goldman (chair), Bamberg, Colquhoun, Havey, Jiang, Krysan, Nienhuis, Palta, Patterson, Simon, Spooner, Yandell; Associate

Professors Bethke, Jansky, Jull, Weng, Zalapa; Assistant Professors Atucha, Dawson, Endelman, Wang

HORTICULTURE, DOCTORAL MINOR

REQUIREMENTS

Doctoral students in other departments who wish to receive a minor in horticulture must complete a minimum of 10 graduate credits in horticulture, including 2 credits of HORT 910 Seminar. Interested students should contact the department for more information.

PEOPLE

Faculty: Professors Goldman (chair), Bamberg, Colquhoun, Havey, Jiang, Krysan, Nienhuis, Palta, Patterson, Simon, Spooner, Yandell; Associate Professors Bethke, Jansky, Jull, Weng, Zalapa; Assistant Professors Atucha, Dawson, Endelman, Wang

HORTICULTURE, M.S.

The department provides graduate training leading to the master of science in horticulture. Each M.S. student will have a major advisor who will supervise their program of study and their thesis research. Specializations are available in several aspects of crop science: organic and sustainable horticulture, diversified crop production for urban and regional food systems, environmental impact of horticultural practices, environmental regulation of plant growth and development, plant breeding, biochemistry and molecular biology of horticultural plants, microculture and biotechnology, weed control and herbicide physiology, and biostatistics. Students have the opportunity to develop their research projects using vegetables, fruits, trees, ornamentals, turf, specialty crops, or model species such as *Arabidopsis thaliana*.

The M.S. student's thesis project will involve an in-depth mentored exploration of a research question and the development of a written thesis in conjunction with a graduate committee of three faculty members.

The department houses research labs, controlled environment chambers, and greenhouse facilities. Field-plot areas with associated storage and laboratory facilities are available at the UW–Madison Arboretum, Horticulture Research Farm at Arlington, and the Agriculture Research Stations managed by the College of Agricultural and Life Sciences at selected locations throughout the state. In conjunction with the farm at Sturgeon Bay, the world's largest collection of tuber-bearing Solanums is maintained by the Inter-Regional Potato Introduction Project and is available for research use.

ADMISSIONS

The department accepts applications for fall, spring, and summer entry. The applicant's academic preparation should include fundamental courses in the plant sciences such as botany, bacteriology, genetics, and physiology, as well as courses in chemistry (general, organic, quantitative), physics, mathematics, and biochemistry. The academic

average should be at least 3.0 (on a 4.0 scale) with evidence of proficiency in subjects related to agriculture and plant sciences.

APPLICATION DEADLINES

Spring entry: September 1
Summer entry: December 1
Fall entry: December 1

APPLICATION CHECKLIST

A complete application should include the following items:

1. Graduate School Application and Application Fee
2. Supplementary Application: The supplementary application will appear as a part of the Graduate School's electronic application once the applicant selects Horticulture.
3. Statement of Purpose: Your essay should be a concise description of your reasons for choosing to study horticulture at the University of Wisconsin. Please include your research interests and career goals as well as a description of your preparation for graduate study including relevant coursework, related employment, research experience, publications, presentations, awards, and honors.
4. Transcripts: We require all applicants to submit an unofficial transcript in PDF format to their online application. If an applicant is recommended for admission, then they will be required to submit their official transcript to the Graduate School. International academic records must be submitted in the original language and accompanied by an official English translation. Documents must be issued by the institution with an official seal/stamp and an official signature.
5. Three Letters of Recommendation
6. GRE Scores: GRE scores are not required for admission but are highly recommended. GRE scores are required for applicants who are interested in fellowships and other forms of financial support
7. Proof of English Proficiency: Applicants whose native language is not English or whose undergraduate instruction was not in English must follow the Graduate School's guidelines for proof of English proficiency.

FACULTY ADVISORS

The Horticulture M.S. and Ph.D. programs do not support lab rotations. All students are admitted directly into a faculty member's lab. Thus, we strongly encourage applicants to contact faculty members who work in their areas of interest before and during the application and admissions process.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from

the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

All applicants to the graduate program in Horticulture are automatically considered for financial support. There is no need to submit a separate application. Most of our students are supported through research assistantships, but additional sources of internal financial support include teaching assistantships, project assistantships, scholarships, and fellowships.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

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Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 18 credits

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Contact the program for information on required assessments and examinations.

Language Requirements Contact the program for information on any language requirements.

REQUIRED COURSES

Departmental Requirements

The specific program of study towards a master's degree is developed by the student and the major professor. Considerable flexibility in the selection of courses is permitted to meet the needs and interests of the candidate. Students often complete the requirements for a master's degree in one and a half years, and three years is usually considered the maximum time necessary.

- All students must have successfully completed 14 credits of Horticulture (<http://guide.wisc.edu/courses/hort>) courses and 11 credits of Botany (<http://guide.wisc.edu/courses/botany>) courses during their enrollment in the undergraduate and/or graduate program(s). No more than 3 credits of HORT 699 Special Problems may be counted towards this requirement.

Students must complete a minimum of 30 credits and 15 of these credits must be graduate level (up to 3 credits of 990 may be used to satisfy this 15 credit requirement, but HORT 699 Special Problems may not be used to satisfy this requirement). This requirement for 15 graduate-level credits can only be satisfied by classes taken while the student is enrolled in the master's program.

- Students must satisfy the requirements listed in one of the three tracks listed below:
 - Track 1. The student must complete at least 30 credits while enrolled in Graduate School and write a master's thesis that is acceptable to the student's final examining committee.
 - Track 2. The student must complete at least 30 credits while enrolled in Graduate School.
 - Track 3. Master's Degree in Horticulture with Emphasis in Organic Sustainable Production. Students must satisfy the specific course requirements outlined below. The student must also complete at least 30 credits while enrolled in Graduate School and write a master's thesis that is acceptable to the student's final examining committee.

Organic Sustainable Production Emphasis ¹

Code	Title	Credits
Ecology (one course required)		

F&W ECOL/BOTANY/	General Ecology	4
ZOOLOGY 460		
AGROECOL 701	The Farm as Socio-Environmental Endeavor	3
AGROECOL 702	The Multifunctionality of Agriculture	3
Horticulture (one course required)		
HORT 345	Fruit Crop Production	3
HORT 370	World Vegetable Crops	3
Plant Pathology (one course required)		
PL PATH 300	Introduction to Plant Pathology	4
PL PATH 517	Plant Disease Resistance	2-3
PL PATH 559	Diseases of Economic Plants	3
Agronomy/Entomology (one course required)		
ENTOM 450	Basic and Applied Insect Ecology	3
AGRONOMY/	Integrated Weed Management	4
HORT 328		
Soil Science (one course required)		
SOIL SCI/	Soil Biology	3
PL PATH 323		
SOIL SCI/	Plant Nutrition Management	3
AGRONOMY/		
HORT 326		
Statistics		
STAT/F&W ECOL/	Statistical Methods for Bioscience I	4
HORT 571		
Seminar (one course required)		
AGROECOL 710	Agroecology Seminar	1
HORT 372	Colloquium in Organic Agriculture	1
Research (Total of 6 credits required)		
HORT 990	Research	1-12

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Additional Coursework

At the discretion of the student's major professor or master's committee, additional remedial or advanced coursework may be required.

Seminar Requirement

Master's degree students must enroll in a graduate level seminar class (1 credit) for at least one semester and obtain a passing grade for that class. Seminars offered by departments other than Horticulture may be used to satisfy this requirement

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://horticulture.wisc.edu/academics/graduate-program/ms-degree>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

Allowed; coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

Students are allowed to count no more than 7 credits numbered 300 or above toward the minimum graduate degree credit requirement; if those courses are numbered 700 or above they may count toward the minimum graduate coursework requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison University Special

With program approval, students are allowed to count no more than 15 credits of coursework numbered 300 or above taken as a UW–Madison Special student. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student must have a faculty advisor (major professor) who is on the Horticulture faculty. The major professor advises the student about course work and supervises the student's research if they are writing a master's thesis. The major professor must approve the student's coursework and research direction. A student may have more than one major professor, in which case at least one of the professors must be a member of the Horticulture faculty.

A master's committee is composed of at least three current UW–Madison faculty members, including the major professor. The master's committee is empowered by the program to advise the student regarding coursework and thesis content, and conduct the final master's oral examination. Prior to the end of the first year of graduate study the student, in consultation with their major professor, should select two members of the UW–Madison faculty to serve on their master's committee. It is the student's responsibility to seek and obtain (verbal) approval from the faculty selected to serve on this committee.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their

absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

n/a

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PROGRAM RESOURCES

The Horticulture Graduate programs encourage students to develop Individual Development Plans (<https://grad.wisc.edu/pd/idp>) in collaboration with their Major Advisor to facilitate professional development. Besides the extensive opportunities offered across the campus at large, students in the Horticulture programs also benefit from activities and programs provided by the Plant Sciences Graduate Council (<http://psgsc.wisc.edu>), a student-led organization for graduate students at UW-Madison interested in plant science.

LEARNING OUTCOMES

1. Articulates the theories, research methods, and approaches to inquiry used in the field of horticulture.
2. Identifies sources and assembles evidence pertaining to questions in the field of horticulture.
3. Understands the primary field of horticulture in a global context.
4. Selects and utilizes the most appropriate methodologies and practices.
5. Synthesizes information pertaining to questions or challenges in the field of horticulture.
6. Communicates clearly in ways appropriate to the field of horticulture.
7. Recognizes and applies principles of ethical conduct.

PEOPLE

Faculty: Professors Goldman (chair), Bamberg, Colquhoun, Havey, Jiang, Krysan, Nienhuis, Palta, Patterson, Simon, Spooner, Yandell; Associate Professors Bethke, Jansky, Jull, Weng, Zalapa; Assistant Professors Atucha, Dawson, Endelman, Wang

HORTICULTURE, PH.D.

The department provides graduate training leading to the doctor of philosophy in horticulture. Each doctoral student will have a major advisor who will supervise their program of study and their thesis research. Specializations are available in several aspects of crop science: organic and sustainable horticulture, diversified crop production for urban and regional food systems, environmental impact of horticultural

practices, environmental regulation of plant growth and development, plant breeding, biochemistry and molecular biology of horticultural plants, microculture and biotechnology, weed control and herbicide physiology, and biostatistics. Students have the opportunity to develop their research projects using vegetables, fruits, trees, ornamentals, turf, specialty crops, or model species such as *Arabidopsis thaliana*.

The Ph.D. student's dissertation project will involve an in-depth mentored exploration of a research question and the development of a dissertation in conjunction with a graduate committee of at least four faculty members. A public presentation and defense of the dissertation is required.

The department houses research labs, controlled environment chambers, and greenhouse facilities. Field-plot areas with associated storage and laboratory facilities are available at the UW-Madison Arboretum, Horticulture Research Farm at Arlington, and the Agriculture Research Stations managed by the College of Agricultural and Life Sciences at selected locations throughout the state. In conjunction with the farm at Sturgeon Bay, the world's largest collection of tuber-bearing Solanums is maintained by the Inter-Regional Potato Introduction Project and is available for research use.

ADMISSIONS

The department accepts applications for fall, spring, and summer entry.

The applicant's academic preparation should include fundamental courses in the plant sciences such as botany, bacteriology, genetics, and physiology, as well as courses in chemistry (general, organic, quantitative), physics, mathematics, and biochemistry. The academic average should be at least 3.0 (on a 4.0 scale) with evidence of proficiency in subjects related to agriculture and plant sciences.

APPLICATION DEADLINES

Spring entry: October 30

Summer entry: January 2

Fall entry: January 2

APPLICATION CHECKLIST

A complete application should include the following items:

1. Graduate School Application and Application Fee
2. Supplementary Application: The supplementary application will appear as a part of the Graduate School's electronic application once the applicant selects Horticulture.
3. Statement of Purpose: Your essay should be a concise description of your reasons for choosing to study horticulture at the University of Wisconsin. Please include your research interests and career goals as well as a description of your preparation for graduate study including relevant coursework, related employment, research experience, publications, presentations, awards, and honors.
4. Transcripts: We require all applicants to submit an unofficial transcript in PDF format to their online application. If an applicant is recommended for admission, then they will be required to submit their official transcript to the Graduate School. International academic records must be submitted in the original language and accompanied by an official English translation. Documents must be issued by the institution with an official seal/stamp and an official signature.
5. Three Letters of Recommendation

6. GRE Scores: GRE scores are not required for admission but are highly recommended. GRE scores are required for applicants who are interested in fellowships and other forms of financial support
7. Proof of English Proficiency: Applicants, whose native language is not English, or whose undergraduate instruction was not in English, must follow the Graduate School's guidelines for proof of English proficiency.

FACULTY ADVISORS

The Horticulture M.S. and Ph.D. programs do not support lab rotations. All students are admitted directly into a faculty member's lab. Thus, we strongly encourage applicants to contact faculty members who work in their areas of interest before and during the application and admissions process.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

All applicants to the graduate program in Horticulture are automatically considered for financial support. There is no need to submit a separate application. Most of our students are supported through research assistantships, but additional sources of internal financial support include teaching assistantships, project assistantships, scholarships, and fellowships.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses

and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules.

Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement	51 credits
Minimum Residence Credit Requirement	32 credits
Minimum Graduate Coursework Requirement	Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.
Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.
Assessments and Examinations	Doctoral students are required to take a comprehensive preliminary/oral examination after they have cleared their record of all Incomplete and Progress grades (other than research and thesis). Deposit of the doctoral dissertation in the Graduate School is required.
Language Requirements	Contact the program for information on any language requirements.
Doctoral Minor/Breadth Requirements	All doctoral students are required to complete a minor.

REQUIRED COURSES

Departmental Requirements

All Horticulture Ph.D. students must satisfy the following general course requirements. These requirements can be satisfied by coursework completed while the student was an undergraduate or enrolled in another graduate program.

- Physical Sciences—one course in each of the following:
 - Physics, including electricity, heat, and light

- Calculus
- Organic Chemistry lecture
- Organic Chemistry lab or Biochemistry lab
- Biological Sciences—one course in each of the following:
 - Crop Production
 - Plant Breeding or Genetics
 - Plant Structure, Plant Taxonomy, or Plant Physiology
 - Plant Pathology or Entomology
- A Statistics Course
- A Soil Science Course

Specific course requirements

There are no specific course requirements for the Ph.D. in Horticulture. Instead, each student is required to work with the major professor and the Ph.D. committee to design a program of coursework that best meets the individual student's needs and interests. The resulting program of coursework must satisfy the departmental requirements as well as the requirements specified by the Graduate School. The final determination of a student's required coursework is made by the student's Ph.D. committee as part of the certification process.

Seminar requirement

During their graduate careers, students are required to present a minimum of three seminars in advanced seminar courses and receive a passing grade in each seminar. Advanced seminar courses offered by the departments other than Horticulture may be used to satisfy this requirement.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://horticulture.wisc.edu/academics/graduate-program/phd-degree>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

Allowed; coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

Students are allowed to count no more than 7 credits numbered 300 or above toward the minimum graduate degree credit requirement; if those courses are numbered 700 or above they may count toward the minimum graduate coursework requirement. Coursework earned ten or more

years prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison University Special

With program approval, students are allowed to count no more than 15 credits of coursework numbered 300 or above taken as a UW–Madison Special student. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student must have a faculty advisor (major professor) who is on the Horticulture faculty. The major professor advises the student about course work and supervises the student's research. The major professor must approve the student's coursework and research direction. A student may have more than one major professor, in which case at least one of the professors must be a member of the Horticulture faculty.

A Ph.D. committee is composed of at least four members, the major professor, and four more whom must be UW–Madison graduate faculty or former UW–Madison graduate faculty up to one year after resignation or retirement. The Graduate School requires that at least three committee members are designated as readers. Readers are committee members who commit themselves to closely reading and reviewing the entire dissertation. The committee is empowered by the program to advise and evaluate the student with regards to certification, administer the preliminary examination, oversee progress meetings, approve thesis composition, and conduct the final Ph.D. examination.

The student, in consultation with their major professor(s), should select the members of their Ph.D. committee prior to the end of the second semester of graduate study in order to convene a meeting to discuss the student's coursework and plan for certification. Certification is the process by which the Ph.D. committee certifies that the student has completed the formal coursework requirements of the Ph.D. certification is particularly important in the horticulture department because each student has a custom-designed program of coursework. This coursework plan must be approved by the student's Ph.D. committee, and for this reason it is important for the student to convene a meeting of their Ph.D. committee prior to the end of their second semester so that additional courses suggested by the committee may be taken during the student's second year of graduate study. The Graduate School requires at least one member of the Ph.D. committee to be from outside the horticulture department. The horticulture department requires that at least half of the committee members have an appointment in the horticulture department. Students choosing Minor Option A typically include their minor professor as a member of their Ph.D. committee. It is the student's responsibility to seek and obtain (verbal) approval from the faculty members selected to serve on this committee.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

OTHER

n/a

PROFESSIONAL DEVELOPMENT**GRADUATE SCHOOL RESOURCES**

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PROGRAM RESOURCES

The Horticulture Graduate programs encourage students to develop Individual Development Plans (<https://grad.wisc.edu/pd/idp>) in collaboration with their Major Advisor to facilitate professional development. Besides the extensive opportunities offered across the campus at large, students in the Horticulture programs also benefit from activities and programs provided by the Plant Sciences Graduate Council (<http://psgsc.wisc.edu>), a student-led organization for graduate students at UW-Madison interested in plant science.

LEARNING OUTCOMES

1. Articulates challenges, frontiers and limits with respect to knowledge within the field of horticulture.
2. Formulates ideas, concepts, designs, and/or techniques beyond the current boundaries of knowledge within the field of horticulture.
3. Creates research that makes a substantive contribution to the field of horticulture.
4. Demonstrates breadth within their learning experiences.
5. Communicates complex or ambiguous ideas in a clear and understandable manner.
6. Fosters ethical conduct and professional guidelines.

PEOPLE

Faculty: Professors Goldman (chair), Bamberg, Colquhoun, Havey, Jiang, Krysan, Nienhuis, Palta, Patterson, Simon, Spooner, Yandell; Associate

Professors Bethke, Jansky, Jull, Weng, Zalapa; Assistant Professors Atucha, Dawson, Endelman, Wang

HUMAN DEVELOPMENT AND FAMILY STUDIES**DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL**

- Human Development and Family Studies, Doctoral Minor (p. 730)

HUMAN DEVELOPMENT AND FAMILY STUDIES, DOCTORAL MINOR

Any student enrolled in a UW–Madison doctoral program can pursue a doctoral minor in Human Development and Family Studies (HDFS). The graduate program in HDFS, located within the School of Human Ecology, offers courses on individual and family development throughout the lifespan and across ecological settings. These courses focus on a range of topics, including risk and resilience throughout the life span, competent child rearing, positive development, poverty and the family, mindfulness and contemplative practices for child and family well-being, development in multicultural contexts, policy, adult development and relationships, adolescence, and aging and the family. Courses that address the applications of research to practice are also part of the curriculum. Recent offerings include courses in prevention science, family policy, evidence-based intervention, and bridging the gap between research and practice. Reflecting the multidisciplinary orientation of the program, faculty and students employ a wide array of methods in their work. Faculty possess expertise in areas as diverse as longitudinal modeling, community-based research, interpretive interviewing, program evaluation, observational methods, survey methodology, action research, and ethnography. The program explicitly values both qualitative and quantitative methods. For more information, see this link (<https://sohe.wisc.edu/graduate-students/research-and-creative-scholarship/hdfs-graduate-program>).

ADMISSIONS

Graduate students interested in pursuing an Option A doctoral minor should complete the minor agreement form available on the HDFS website (<https://sohe.wisc.edu/graduate-students/research-and-creative-scholarship/hdfs-graduate-program/forms-and-documents>) and consult with the graduate program chair, who will help them identify an HDFS faculty member to serve as their faculty advisor.

REQUIREMENTS

All students pursuing the Human Development and Family Studies (HDFS) Doctoral Minor must comply with Graduate School Policy for Option A Minors (<https://grad.wisc.edu/acadpolicy/?policy=minors>).

The HDFS Doctoral Minor requires at least 9 credits of HDFS coursework (<http://guide.wisc.edu/courses/hdfs>), with no more than 3 credits below the 700 level. HDFS courses that are cross-listed with another

department should be taken as an HDFS course. Students must receive a grade of B or better in each course.

PEOPLE

Professors: Janean Dilworth-Bart (chair), Charles Raison, Julie Poehlmann-Tynan, Linda Roberts, Stephen Small

Associate Professors: Larissa Duncan, Sarah Halpern-Meekin, Sigán Hartley, Heather Kirkorian, Robert Nix, Lauren Papp

Assistant Professors: Kristin Litzelman, Margaret Kerr

HUMAN ECOLOGY—SCHOOL-WIDE

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Human Ecology, Doctoral Minor (p. 731)
- Human Ecology, M.S. (p. 732)
- Human Ecology, MFA (p. 743)
- Human Ecology, Ph.D. (p. 750)

PEOPLE

Faculty:

CIVIL SOCIETY AND COMMUNITY STUDIES

Professors: Cynthia Jasper (chair), Constance Flanagan

Associate Professors: Lori Bakken, Brian Christens

Assistant Professors: Kendra Alexander, Jennifer Gaddis, Leah Horowitz, Carolina Sarmiento, Shannon Sparks

CONSUMER SCIENCE (CONSUMER BEHAVIOR & FAMILY ECONOMICS)

Professors: Nancy Wong (chair), Judith Bartfeld

Associate Professors: J. Michael Collins, Clifford Robb

Assistant Professors: Feneba Addo, Lydia Ashton, Dee Warmath

DESIGN STUDIES

Professors: Roberto Rengel (chair), Jennifer Angus, Wei Dong, Majid Sarmadi, Mark Nelson

Associate Professors: Mary Hark, Carolyn Kallenborn, Jung-hye Shin

Assistant Professors: Marianne Fairbanks, Marina Moskowitz, Kevin Ponto, Kristin Thorleifsdottir

HUMAN DEVELOPMENT AND FAMILY STUDIES

Professors: Janean Dilworth-Bart (chair), Charles Raison, Julie Poehlmann-Tynan, Linda Roberts, Stephen Small

Associate Professors: Larissa Duncan, Sarah Halpern-Meekin, Sigán Hartley, Heather Kirkorian, Robert Nix, Lauren Papp

Assistant Professors: Kristin Litzelman, Margaret Kerr

HUMAN ECOLOGY, DOCTORAL MINOR

Any student enrolled in a UW–Madison doctoral program can pursue a doctoral minor in Human Ecology. The graduate program within the School of Human Ecology (SoHE) provides rich interdisciplinary training and scholarship focused on exploring the human condition and well-being in relation to ecological settings—physical, social, community, and built surroundings. The school's philosophy is that individual development and well-being are promoted through interactions with ecological settings. Research, creativity, teaching, and outreach are directed toward a positive impact on these settings and the patterns of human behavior within them. Faculty members possess expertise in areas as diverse as longitudinal modeling, community-based research, interpretive interviewing, program evaluation, observational methods, survey methodology, action research, and ethnography.

ADMISSIONS

Graduate students interested in pursuing an Option A doctoral minor should complete the Minor Agreement Form (<https://sohe.wisc.edu/wordpress/wp-content/uploads/2017/10/Human-Ecology-Minor-Agreement-Form.docx>) and consult with the graduate program coordinator in Human Ecology who will help them identify a SoHE faculty member to serve as their faculty advisor.

REQUIREMENTS

The Human Ecology Doctoral Minor requires at least 9 credits taken through a combination of coursework in at least two different School of Human Ecology departments: Civil Society and Community Studies (CSCS) (<http://guide.wisc.edu/courses/cscs>); Consumer Science (CNSR SCI) (http://guide.wisc.edu/courses/cnsr_sci), Design Studies (DS) (<http://guide.wisc.edu/courses/ds>), Human Development and Family Studies (HDFS) (<http://guide.wisc.edu/courses/hdfs>), and Interdisciplinary–Human Ecology (INTER-HE) (http://guide.wisc.edu/courses/inter_he). No more than 3 credits can be taken below the 700 level. Human Ecology courses that are cross-listed with another department should be enrolled in through the respective Human Ecology department. Students must receive a grade of B or better in each course.

PEOPLE

Faculty:

CIVIL SOCIETY AND COMMUNITY STUDIES

Professors: Cynthia Jasper (chair), Constance Flanagan

Associate Professors: Lori Bakken, Brian Christens

Assistant Professors: Kendra Alexander, Jennifer Gaddis, Leah Horowitz, Carolina Sarmiento, Shannon Sparks

CONSUMER SCIENCE (CONSUMER BEHAVIOR & FAMILY ECONOMICS)

Professors: Nancy Wong (chair), Judith Bartfeld

Associate Professors: J. Michael Collins, Clifford Robb

Assistant Professors: Feneba Addo, Lydia Ashton, Dee Warmath

DESIGN STUDIES

Professors: Roberto Rengel (chair), Jennifer Angus, Wei Dong, Majid Sarmadi, Mark Nelson

Associate Professors: Mary Hark, Carolyn Kallenborn, Jung-hye Shin

Assistant Professors: Marianne Fairbanks, Marina Moskowitz, Kevin Ponto, Kristin Thorleifsdottir

HUMAN DEVELOPMENT AND FAMILY STUDIES

Professors: Janean Dilworth-Bart (chair), Charles Raison, Julie Poehlmann-Tynan, Linda Roberts, Stephen Small

Associate Professors: Larissa Duncan, Sarah Halpern-Meekin, Sigan Hartley, Heather Kirkorian, Robert Nix, Lauren Papp

Assistant Professors: Kristin Litzelman, Margaret Kerr

HUMAN ECOLOGY, M.S.

Human ecology is the study of the complex relationships between human beings and their environments. The school offers the Human Ecology M.S. through four distinct options, two of which can be taken as terminal master's degrees and two of which are only earned on the way to the Ph.D.:

Admitting Human Ecology M.S. options:

- Design Studies (p. 738) (DS)
- Master of Science in Human Ecology Program (p. 733) (No named option)

Non-admitting Human Ecology M.S. options (earned on the way to the Ph.D.)

- Consumer Behavior and Family Economics (p. 736) (CBFE)
- Human Development and Family Studies (p. 741) (HDFS)

MASTER OF SCIENCE IN HUMAN ECOLOGY (NO NAMED OPTION)

The Master of Science in Human Ecology offers multi-disciplinary course work that focuses on current theories and strategies for creating, managing and evaluating settings that promote human and community development. Students are exposed to current research and practice that integrates: (a) the promotion of human and family development with (b) perspectives on building effective organizations and sustainable communities. Students create their own "master's specialization" through elective courses and the completion of a real-world capstone project. Specializations are designed so that students can name their expertise to prospective employees.

This program is intended as a terminal, applied degree. Students interested in a PhD, MFA or other graduate degrees in the School of

Human Ecology (<https://sohe.wisc.edu/graduate-students>) may apply separately to these programs.

The master's program is geared toward students who are both new to the field and those who have had some direct practice, applied research, educational or advocacy experience. This 33-credit M.S. degree can be completed in three semesters of full-time study or four or more semesters if students are part-time. The program prepares students for careers working in a wide range of settings including:

- Community-based organizations (family support, youth work, community organizing, social justice, intervention and prevention programs, consumer and financial coaching)
- Intermediary and "backbone" organizations (technical assistance providers, philanthropic foundations, applied research and evaluation organizations, capacity building providers, community-based economic development)
- Government agencies (child and family services, public health, legislative support)
- University outreach (Cooperative Extension, community partnerships and coalitions, public service, multicultural offices, academic support and education)

SCHOOL OF HUMAN ECOLOGY

The School of Human Ecology has a strong tradition of outreach and counts several faculty members with budgeted extension appointments among its ranks. But all faculty members devote time and resources to ensuring their work benefits others beyond the campus. These efforts reflect the Wisconsin Idea, (<http://wisconsinidea.wisc.edu>) the notion that the university's boundaries are those of the state, nation, and beyond. Graduate education at SoHE encompasses this mission by stressing the integration of research with program design and implementation, administration, policy development, and evaluation.

ADMISSIONS

Applicants must apply online and pay the required application fee to the Graduate School. Applicants must meet all Graduate School requirements including a bachelor's degree from an accredited institution and an undergraduate GPA of 3.0 or higher (on a 4.0 scale). Each of the program areas listed below may set additional or alternative minimum requirements and/or require additional application materials. Applications are accepted once per year for Fall admission and are due by December 1st of the preceding year.

Students may apply directly to the M.S. in Human Ecology (no named option) or the M.S. in Human Ecology with a named option in Design Studies. They may not apply directly to the named options in Consumer Behavior and Family Economics or Human Development and Family Studies; these master's degrees may be earned along the way to a Ph.D. in a named option of the same name.

Please see each program option below for additional admission requirements.

CONSUMER BEHAVIOR AND FAMILY ECONOMICS (CBFE)

Beginning fall 2017, the Consumer Behavior and Family Economics M.S. option is no longer offered as a terminal degree option to which students can apply. This degree is earned along the way to the Consumer Behavior and Family Economics Ph.D. option in Human Ecology. Students interested in pursuing a terminal master of science degree specializing

in Consumer Behavior and Family Economics should apply directly to the Master of Science in Human Ecology (no named option).

Additional information is available here (<http://sohe.wisc.edu/cbfe>).

DESIGN STUDIES (DS)

To be considered for admission to the Design Studies (DS) M.S. option in Human Ecology, the department requires the following materials:

- Online application (<https://grad.wisc.edu/apply>) indicating "Human Ecology M.S. –Design Studies" as your program selection
- \$75 application fee
- CV/Resume
- Unofficial transcripts or academic records from each institution attended (official transcripts will be required for students who receive an admission offer)
- Official TOEFL or Melab score (International students only)
- Three letters of recommendation (submitted electronically through your Graduate School application)
- Uploaded Statement of Purpose/Reasons for Graduate Study
- Upload a writing sample
 - Examples of writing samples include prior scholarly work such as term papers, theses, or published articles. All writing samples must be written in English and uploaded to the online application system as a PDF.

Additional information is available here (<http://sohe.wisc.edu/design>).

HUMAN DEVELOPMENT AND FAMILY STUDIES (HDFS)

Beginning Fall 2017, the Human Development and Family Studies M.S. option is no longer offered as a terminal degree option to which students can apply. This degree is earned along the way to the Human Development and Family Studies Ph.D. option in Human Ecology. Students interested in pursuing a terminal master of science degree specializing in Human Development and Family Studies should apply directly to the Master of Science in Human Ecology (no named option).

Additional information is available here (<http://sohe.wisc.edu/hdfs>).

MASTER OF SCIENCE IN HUMAN ECOLOGY (NO NAMED OPTION)

To be considered for admission to the Master of Science in Human Ecology (with no named option), the department requires the following materials:

- Online application (<https://grad.wisc.edu/apply>) indicating "Human Ecology MS" as your program selection
- \$75 application fee
- CV/Resume
- Unofficial transcripts or academic records from each institution attended (official transcripts will be required for students who receive an admission offer)
- Official TOEFL or Melab scores (International students only)
- Three letters of recommendation (Submitted electronically through your Graduate School application)
- Upload your Reasons for Graduate Study/Statement of Purpose. In your statement, please address:
 - Your reasons for studying or seeking a Master of Science in Human Ecology degree
 - Your relevant current or past work and volunteer experience

- Your professional goals and plans after completing this program

Optional: Upload any other supporting documents that you believe enhance your application (e.g., honors, awards, GRE scores, writing sample, etc.)

Additional information is available here (<http://sohe.wisc.edu/ms>).

GRADUATE SCHOOL:

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Funding opportunities for Human Ecology graduate students are available and made possible, in large part, by generous donations to SoHE. Every year, these funds are used to fund teaching or project assistantships, award academic excellence scholarships, and provide students doing their masters or doctoral research or final MFA project with conference travel scholarships and graduate research scholarships. See the School of Human Ecology Enrollment Policy on Funding Eligibility (<https://sohe.wisc.edu/graduate-students/academic-policies-forms-deadlines/full-time-enrollment-policy-for-funding-eligibility>) and view current funding opportunities on our program website (<https://sohe.wisc.edu/graduate-students/funding>) for more information.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses

and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules.

Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement	30 credits
Minimum Residence Credit Requirement	16 credits
Minimum Graduate Coursework Requirement	Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (https://registrar.wisc.edu/course-guide/).
Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.
Assessments and Examinations	Contact the program for information on required assessments and examinations.
Language Requirements	Contact the program for information on any language requirements.

REQUIRED COURSES

Code	Title	Credits
	Understanding and Translating Research	3
	Content and Theory	9
	Area of Specialiation	9
	Professional Skills	9
	Capstone Project	3
	Total Credits	33

Contact the program for information on any additional required courses.

NAMED OPTIONS (SUB-MAJORS)

A named option is a formally documented sub-major within an academic major program. Named options appear on the transcript with degree conferral.

- Human Ecology: Consumer Behavior and Family Economics, M.S. (p. 736)
- Human Ecology: Design Studies, M.S. (p. 738)
- Human Ecology: Human Development and Family Studies, M.S. (p. 741)

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count up to 9 credits of graduate coursework taken at other institutions or taken as a UW–Madison Special student. Prior coursework taken at other institutions may not be used to satisfy the minimum graduate residence credit requirement. Credits earned five or more years prior to admission to a master's degree are not allowed to satisfy requirements.

UW–Madison Undergraduate

With program approval, up to 7 credits numbered 300 or above from a UW–Madison undergraduate degree are allowed to count toward degree credit; undergraduate courses must be numbered 700 or above to count toward the minimum graduate coursework requirement. No undergraduate coursework may count toward the graduate residence requirement.

UW–Madison University Special

With program approval, students are allowed to count up to 9 credits of graduate coursework taken at other institutions or taken as a UW–Madison Special student. Coursework must be numbered 300 or above for residence and degree credit requirement and 700 or above for minimum graduate coursework (50%) requirement. Credits earned five or more years prior to admission to a master's degree are not allowed to satisfy requirements. Use of Special student credit may require payment of tuition difference.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

12 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Additional school-wide policies are available here (<https://sohe.wisc.edu/graduate-students/academic-policies-forms-deadlines>).

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PROGRAM RESOURCES

The School of Human Ecology Graduate Program values the professional development of graduate students and provides financial awards to those who are invited to present at professional conferences/exhibits. The purpose of the support is to encourage participation in professional development, scholarly research, and/or creative endeavor and to help cover expenses not covered by other sources. Students may receive a maximum award of \$650 for travel (\$750 for international travel) to support conference participation in a single academic year.

In addition, each academic department within the School of Human Ecology may offer additional professional development grant opportunities. See the program Events Calendar (<https://sohe.wisc.edu/>

calendar-of-events) for the most up-to-date information on professional development opportunities.

LEARNING OUTCOMES

1. Articulate, critique, or elaborate the theories, research methods, and approaches to inquiry or schools of practice in one's area of study.
2. Identify sources and assemble evidence pertaining to questions or challenges in the area of study.
3. Understand the social, political, ethical, and economic contexts of research and creative scholarship.
4. Compare and contrast multiple paradigms for describing reality (e.g., personal history, world view, philosophic tradition, discipline).
5. Understand the Human Ecology perspective by examining and explaining the relations among humans and their natural, social, and build environments using an interdisciplinary and transdisciplinary lens.
6. Select and/or utilize the most appropriate methodologies and practices.
7. Recognize the nature and significance of diversity as related to one's area of study.
8. Communicate clearly in ways appropriate to a variety of audiences.
9. Recognize and apply principles of ethical conduct.

PEOPLE

Faculty:

CIVIL SOCIETY AND COMMUNITY STUDIES

Professors: Cynthia Jasper (chair), Constance Flanagan

Associate Professors: Lori Bakken, Brian Christens

Assistant Professors: Kendra Alexander, Jennifer Gaddis, Leah Horowitz, Carolina Sarmiento, Shannon Sparks

CONSUMER SCIENCE (CONSUMER BEHAVIOR & FAMILY ECONOMICS)

Professors: Nancy Wong (chair), Judith Bartfeld

Associate Professors: J. Michael Collins, Clifford Robb

Assistant Professors: Feneba Addo, Lydia Ashton, Dee Warmath

DESIGN STUDIES

Professors: Roberto Rengel (chair), Jennifer Angus, Wei Dong, Majid Sarmadi, Mark Nelson

Associate Professors: Mary Hark, Carolyn Kallenborn, Jung-hye Shin

Assistant Professors: Marianne Fairbanks, Marina Moskowitz, Kevin Ponto, Kristin Thorleifsdottir

HUMAN DEVELOPMENT AND FAMILY STUDIES

Professors: Janean Dilworth-Bart (chair), Charles Raison, Julie Poehlmann-Tynan, Linda Roberts, Stephen Small

Associate Professors: Larissa Duncan, Sarah Halpern-Meekin, Sigal Hartley, Heather Kirkorian, Robert Nix, Lauren Papp

Assistant Professors: Kristin Litzelman, Margaret Kerr

HUMAN ECOLOGY: CONSUMER BEHAVIOR AND FAMILY ECONOMICS, M.S.

This is a non-admitting named option within the Human Ecology, M.S. (p. 732)

Students earn the Human Ecology: Consumer Behavior and Family Economics, M.S. along the way to the Ph.D. See Human Ecology: Consumer Behavior and Family Economics, Ph.D. (p. 756) for admissions and degree requirements.

ADMISSIONS

Beginning fall 2017, the Consumer Behavior & Family Economics M.S. option is no longer offered as a terminal degree option to which students can apply. This degree is earned along the way to the Consumer Behavior and Family Economics Ph.D. option in Human Ecology. Students interested in pursuing a terminal master of science degree specializing in Consumer Behavior & Family Economics should apply directly to the Master of Science in Human Ecology (no named option) (p. 733).

Additional information is available here (<http://sohe.wisc.edu/cbfe>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Funding opportunities for Human Ecology graduate students are available and made possible, in large part, by generous donations to SoHE. Every year, these funds are used to fund teaching or project assistantships, award academic excellence scholarships, and provide students doing their masters or doctoral research or final MFA project with conference travel scholarships and graduate research scholarships. See the School of Human Ecology Enrollment Policy on Funding Eligibility (<https://sohe.wisc.edu/graduate-students/academic-policies-forms-deadlines/full-time-enrollment-policy-for-funding-eligibility>) and view current funding opportunities on our program website (<https://sohe.wisc.edu/graduate-students/funding>) for more information.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

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CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Contact the program for information on required assessments and examinations.

Language Requirements Contact the program for information on any language requirements.

REQUIRED COURSES

Code	Title	Credits
Consumer Science Courses		9
CNSR SCI 748	The Economic Organization of the Household	
or CNSR SCI 88	Advanced Consumer Behavior	
or CNSR SCI 901	Graduate Special Topics in Consumer Science	
or CNSR SCI 93	Seminar in Family Economic Policy	
or CNSR SCI 96	Seminar in Consumer Research	
or CNSR SCI 99	Independent Study	
Research Methods		3
Statistics		3
Additional Electives		15
Total Credits		30

POLICIES

GRADUATE SCHOOL POLICIES

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NAMED OPTION-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://sohe.wisc.edu/wordpress/wp-content/uploads/2017/05/CBFE-Graduate-Handbook-2017-18.pdf>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count up to 9 credits of graduate coursework taken at other institutions or taken as a UW–Madison Special student. Prior coursework taken at other institutions may not be used to satisfy the minimum graduate residence credit requirement. Credits earned five or more years prior to admission to a master's degree are not allowed to satisfy requirements.

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A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

12 credits

TIME CONSTRAINTS

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OTHER

n/a

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

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PROGRAM RESOURCES

The School of Human Ecology Graduate Program values the professional development of graduate students and provides financial awards to those who are invited to present at professional conferences/exhibits. The purpose of the support is to encourage participation in professional development, scholarly research, and/or creative endeavor and to help cover expenses not covered by other sources. Students may receive a maximum award of \$650 for travel (\$750 for international travel) to support conference participation in a single academic year.

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PEOPLE

Faculty:

CIVIL SOCIETY AND COMMUNITY STUDIES

Professors: Cynthia Jasper (chair), Constance Flanagan

Associate Professors: Lori Bakken, Brian Christens

Assistant Professors: Kendra Alexander, Jennifer Gaddis, Leah Horowitz, Carolina Sarmiento, Shannon Sparks

CONSUMER SCIENCE (CONSUMER BEHAVIOR & FAMILY ECONOMICS)

Professors: Nancy Wong (chair), Judith Bartfeld

Associate Professors: J. Michael Collins, Clifford Robb

Assistant Professors: Feneba Addo, Lydia Ashton, Dee Warmath

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Associate Professors: Mary Hark, Carolyn Kallenborn, Jung-hye Shin

Assistant Professors: Marianne Fairbanks, Marina Moskowitz, Kevin Ponto, Kristin Thorleifsdottir

HUMAN DEVELOPMENT AND FAMILY STUDIES

Professors: Janean Dilworth-Bart (chair), Charles Raison, Julie Poehlmann-Tynan, Linda Roberts, Stephen Small

Associate Professors: Larissa Duncan, Sarah Halpern-Meekin, Sigan Hartley, Heather Kirkorian, Robert Nix, Lauren Papp

Assistant Professors: Kristin Litzelman, Margaret Kerr

HUMAN ECOLOGY: DESIGN STUDIES, M.S.

This is a named option within the Human Ecology, M.S. (p. 732)

The M.S. Human Ecology program in the Design Studies department is geared toward generating new knowledge and/or insights into design, broadly conceived as both a process and product. The program is geared for students wanting to conduct limited scholarly research in an area of interest. The M.S. culminates in the production of an M.S. thesis that contributes to the knowledge base in the discipline of design (See the program website for more information on the non-thesis option in textile science). Some graduates of the program may continue their journey into Ph.D. programs while others may find themselves well positioned for jobs in industry. Students who aim to become or continue their design practice may be better suited in the Human Ecology: Design Studies, MFA (p. 743) program.

The Design Studies graduate program provides opportunities for students to pursue topics in depth in design and design's relationship with human, their environments, textiles and other material objects. The program is highly flexible, as each student works closely with his/her advisor and graduate committee to design a custom-fit curriculum that strives to support each student's goals after graduation. Due to the centrality of the student/advisor relationship, students will only be accepted if there is a close fit between the student's area of interest and a graduate faculty member who is willing to commit to serve in this mentorship relationship. In this regard, it is important for each applicant to identify a potential faculty member whom they would intend to work with at the time of the applicant's submission. At the same time, students are encouraged to collaborate with faculty from a broad range of departments across the university, including, but not limited to, Art, Art History, Civil Society and Community Studies, Computer Science, Consumer Science, Engineering, Folklore, Human Development and Family Studies, Geography, and Planning and Landscape Architecture.

AREAS OF CONCENTRATION ¹

MS students can choose areas of inquiry from a variety of choices. Within each area, students are expected to build a self-directed and highly coherent curriculum in close consultation with a major faculty advisor. Topics for inquiry typically fall within the following broad areas:

Design History and/or Material Culture Studies

Material Culture Studies and Design History (DH) examines the relationships between culture, objects and individuals. Students develop expertise and insights into the study of objects and environments, not as isolated entities, but as embedded in social, cultural, aesthetic, anthropological, geographical and temporal contexts. Knowledge gained may result in understanding of the past, or insights into contemporary design. Students may focus on particular designers and makers, design from a particular geographical area or time period, design of textiles, design of environments or analysis of meaning and value.

Environment Design research (Environment Design, Environment-Behavior Studies)

Environmental Design Research (EDR) addresses diverse aspects of design inquiry, focusing on the complex inter-relationship between people and the built environment with an ultimate goal to create environments that are sustainable and responsive to human needs. Previous graduate topics in this area have included environment behavior, evidence-based design, building evaluation, sustainability, aging and environment, environments for special populations and children, participatory action research, and emerging technologies and applications of virtual reality.

Textile Science (Thesis and non-thesis option)

Textile Science provides in-depth understanding of the physical and chemical properties of natural and synthetic fibers and their interaction with dyes, finishes and plasma. Students become familiar with a

variety of analytical tools such as Atomic Force Microscopy (AFM), Electron Spectroscopy for Chemical Analysis (ESCA), Scanning Electron Microscopy (SEM), and Attenuated Total Reflectance, Fourier Transform Infrared Spectroscopy (ATR-FTIR).

- ¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

ADMISSIONS

To be considered for admission to the Design Studies (DS) M.S. option in Human Ecology, the department requires the following materials:

- Online application (<https://grad.wisc.edu/apply>) indicating "Human Ecology MS-Design Studies" as your program selection
- \$75 application fee
- CV/resume
- Unofficial transcripts or academic records from each institution attended (official transcripts will be required for students who receive an admission offer)
- Official TOEFL or Melab score (International students only)
- Three letters of recommendation (submitted electronically through your Graduate School application)
- Uploaded Statement of Purpose/Reasons for Graduate Study
- Upload a writing sample
 - Examples of writing samples include prior scholarly work such as term papers, theses, or published articles. All writing samples must be written in English and uploaded to the online application system as a PDF.

Additional information is available here (<https://sohe.wisc.edu/graduate-students/research-and-creative-scholarship/design-studies>).

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Funding opportunities for Human Ecology graduate students are available and made possible, in large part, by generous donations to SoHE. Every year, these funds are used to fund teaching or project assistantships, award academic excellence scholarships, and provide students doing their masters or doctoral research or final MFA project with conference travel scholarships and graduate research scholarships.

See the School of Human Ecology Enrollment Policy on Funding Eligibility (<https://sohe.wisc.edu/graduate-students/academic-policies-forms-deadlines/full-time-enrollment-policy-for-funding-eligibility>) and view current funding opportunities on our program website (<https://sohe.wisc.edu/graduate-students/funding>) for more information.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

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Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum 30 credits
Credit Requirement

Minimum 16 credits
Residence Credit Requirement

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Contact the program for information on required assessments and examinations.

Language Requirements Contact the program for information on any language requirements.

REQUIRED COURSES

Code	Title	Credits
DS Major and Other Graduate Courses		15
Research Methods and Theory		6
Seminar in Area of Emphasis		3
Research and Thesis		6
DS 990	Research and Thesis	
Total Credits		30

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

NAMED OPTION-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://sohe.wisc.edu/graduate-students/research-and-creative-scholarship/design-studies/ms/current-students>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count up to 9 credits of graduate coursework taken at other institutions or taken as a UW–Madison Special student. Prior coursework taken at other institutions may not be used to satisfy the minimum graduate residence credit requirement. Credits earned five or more years prior to admission to a master's degree are not allowed to satisfy requirements.

UW–Madison Undergraduate

With program approval, up to 7 credits numbered 300 or above from a UW–Madison undergraduate degree are allowed to count toward degree credit; undergraduate courses must be numbered 700 or above to count toward the minimum graduate coursework requirement. No undergraduate coursework may count toward the graduate residence requirement.

UW–Madison University Special

With program approval, students are allowed to count up to 9 credits of graduate coursework taken at other institutions or taken as a UW–Madison Special student. Coursework must be numbered 300 or above for residence and degree credit requirement and 700 or above for minimum graduate coursework (50%) requirement. Credits earned five or more years prior to admission to a master's degree are not allowed to satisfy requirements. Use of Special student credit may require payment of tuition difference.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

12 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

n/a

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PROGRAM RESOURCES

The School of Human Ecology Graduate Program values the professional development of graduate students and provides financial awards to those who are invited to present at professional conferences/exhibits. The purpose of the support is to encourage participation in professional

development, scholarly research, and/or creative endeavor and to help cover expenses not covered by other sources. Students may receive a maximum award of \$650 for travel (\$750 for international travel) to support conference participation in a single academic year.

In addition, each academic department within the School of Human Ecology may offer additional professional development grant opportunities. See the program Events Calendar (<https://sohe.wisc.edu/calendar-of-events>) for the most up-to-date information on professional development opportunities.

PEOPLE

Faculty:

CIVIL SOCIETY AND COMMUNITY STUDIES

Professors: Cynthia Jasper (chair), Constance Flanagan

Associate Professors: Lori Bakken, Brian Christens

Assistant Professors: Kendra Alexander, Jennifer Gaddis, Leah Horowitz, Carolina Sarmiento, Shannon Sparks

CONSUMER SCIENCE (CONSUMER BEHAVIOR & FAMILY ECONOMICS)

Professors: Nancy Wong (chair), Judith Bartfeld

Associate Professors: J. Michael Collins, Clifford Robb

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DESIGN STUDIES

Professors: Roberto Rengel (chair), Jennifer Angus, Wei Dong, Majid Sarmadi, Mark Nelson

Associate Professors: Mary Hark, Carolyn Kallenborn, Jung-hye Shin

Assistant Professors: Marianne Fairbanks, Marina Moskowitz, Kevin Ponto, Kristin Thorleifsdottir

HUMAN DEVELOPMENT AND FAMILY STUDIES

Professors: Janean Dilworth-Bart (chair), Charles Raison, Julie Poehlmann-Tynan, Linda Roberts, Stephen Small

Associate Professors: Larissa Duncan, Sarah Halpern-Meekein, Sigal Hartley, Heather Kirkorian, Robert Nix, Lauren Papp

Assistant Professors: Kristin Litzelman, Margaret Kerr

HUMAN ECOLOGY: HUMAN DEVELOPMENT AND FAMILY STUDIES, M.S.

This is a non-admitting named option within the Human Ecology, M.S. (p. 732)

Students earn the Human Ecology: Human Development and Family Studies, M.S. along the way to the Ph.D. See Human Ecology: Human Development & Family Studies, Ph.D. (p. 750) for admissions and degree requirements.

ADMISSIONS

Beginning fall 2017, the Human Development and Family Studies M.S. option is no longer offered as a terminal degree option to which students can apply. This degree is earned along the way to the Human Development and Family Studies Ph.D. option in Human Ecology. Students interested in pursuing a terminal master of science degree specializing in Human Development and Family Studies should apply directly to the Master of Science in Human Ecology (no named option) (p. 733).

Additional information is available here (<http://sohe.wisc.edu/hdfs>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Funding opportunities for Human Ecology graduate students are available and made possible, in large part, by generous donations to SoHE. Every year, these funds are used to fund teaching or project assistantships, award academic excellence scholarships, and provide students doing their masters or doctoral research or final MFA project with conference travel scholarships and graduate research scholarships. See the School of Human Ecology Enrollment Policy on Funding Eligibility (<https://sohe.wisc.edu/graduate-students/academic-policies-forms-deadlines/full-time-enrollment-policy-for-funding-eligibility>) and view current funding opportunities on our program website (<https://sohe.wisc.edu/graduate-students/funding>) for more information.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Contact the program for information on required assessments and examinations.

Language Requirements Contact the program for information on any language requirements.

REQUIRED COURSES

Code	Title	Credits
Introductory Courses		3
CSCS 801	Special Topics in Civil Society and Community Research (Proseminar)	
INTER-HE 801	Special Topics in Human Ecology (Theories and Perspectives)	
Basic Theory Courses		6
HDFS/ED PSYCH 725	Theory and Issues in Human Development	
HDFS 865	Family Theory I (Survey)	
Research Methods & Design		3
INTER-HE 793	Research Methods	
Statistics		3

SOC/C&E SOC 361	Statistics for Sociologists II (Or other course approved by advisor)	
	or ED PSYCH 76 Statistical Methods Applied to Education I	
Research & Thesis		6
HDFS 990	Research and Thesis	
Elective Courses ¹		9
Total Credits		30

¹ Any HDFS (<http://guide.wisc.edu/courses/hdfs>) course at 700-level or above.

POLICIES

GRADUATE SCHOOL POLICIES

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NAMED OPTION-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://sohe.wisc.edu/wordpress/wp-content/uploads/2016/07/HDFS-Graduate-Program-Handbook-Spring-2017.pdf>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count up to 9 credits of graduate coursework taken at other institutions or taken as a UW–Madison Special student. Prior coursework taken at other institutions may not be used to satisfy the minimum graduate residence credit requirement. Credits earned five or more years prior to admission to a master's degree are not allowed to satisfy requirements.

UW–Madison Undergraduate

With program approval, up to 7 credits numbered 300 or above from a UW–Madison undergraduate degree are allowed to count toward degree credit; undergraduate courses must be numbered 700 or above to count toward the minimum graduate coursework requirement. No undergraduate coursework may count toward the graduate residence requirement.

UW–Madison University Special

With program approval, students are allowed to count up to 9 credits of graduate coursework taken at other institutions or taken as a UW–Madison Special student. Coursework must be numbered 300 or above for residence and degree credit requirement and 700 or above for minimum graduate coursework (50%) requirement. Credits earned five or more years prior to admission to a master's degree are not allowed to satisfy requirements. Use of Special student credit may require payment of tuition difference.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

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An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

12 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

n/a

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

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PROGRAM RESOURCES

The School of Human Ecology Graduate Program values the professional development of graduate students and provides financial awards to those who are invited to present at professional conferences/exhibits. The purpose of the support is to encourage participation in professional development, scholarly research, and/or creative endeavor and to help cover expenses not covered by other sources. Students may receive a maximum award of \$650 for travel (\$750 for international travel) to support conference participation in a single academic year.

In addition, each academic department within the School of Human Ecology may offer additional professional development grant opportunities. See the program Events Calendar (<https://sohe.wisc.edu/calendar-of-events>) for the most up-to-date information on professional development opportunities.

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Associate Professors: Larissa Duncan, Sarah Halpern-Meekin, Sigan Hartley, Heather Kirkorian, Robert Nix, Lauren Papp

Assistant Professors: Kristin Litzelman, Margaret Kerr

HUMAN ECOLOGY, MFA

The focus of the MFA degree is on creative performance in design. Its goals are to promote strong and creative conceptual thinking, exploration, interpretation, innovation, and overall excellence in design execution.

Students interested in the MFA should refer to the named option in Design Studies (p. 746).

ADMISSIONS

Applications are accepted once per year for fall admission and are due by the first Monday in January of the same calendar year for which the student is applying.

Students interested in the Human Ecology, MFA should apply directly to this Human Ecology: Design Studies, MFA (p. 746) named option.

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Funding opportunities for Human Ecology graduate students are available and made possible, in large part, by generous donations to SoHE. Every year, these funds are used to fund teaching or project assistantships, award academic excellence scholarships, and provide students doing their masters or doctoral research or final MFA project with conference travel scholarships and graduate research scholarships. See the School of Human Ecology Enrollment Policy on Funding Eligibility (<https://sohe.wisc.edu/graduate-students/academic-policies-forms-deadlines/full-time-enrollment-policy-for-funding-eligibility>) and view current funding opportunities on our program website (<https://sohe.wisc.edu/graduate-students/funding>) for more information.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

Note: The major is currently non-admitting. Students are admitted through one of the named options (sub-majors) below (p.).

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum 60 credits

Credit Requirement

Minimum 24 credits

Residence

Credit

Requirement

Minimum Half of degree coursework (30 credits out of 60 total credits) must be completed graduate-level coursework; Graduate courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.

Overall 3.00 GPA required.

Graduate GPA

Requirement

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Contact the program for information on required assessments and examinations.

Language Requirements Contact the program for information on any language requirements.

Doctoral Minor/Breadth Requirements All doctoral students are required to complete a minor.

REQUIRED COURSES

Select a Named Option (p.) for courses required.

NAMED OPTIONS (SUB-MAJORS)

A named option is a formally documented sub-major within an academic major program. Named options appear on the transcript with degree conferral. Students pursuing the Master of Fine Arts in Human Ecology must select the following named option:

- Human Ecology: Design Studies, MFA (p. 746)

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PROGRAM RESOURCES

The School of Human Ecology Graduate Program values the professional development of graduate students and provides financial awards to those who are invited to present at professional conferences/exhibits.

The purpose of the support is to encourage participation in professional development, scholarly research, and/or creative endeavor and to help cover expenses not covered by other sources. Students may receive a maximum award of \$650 for travel (\$750 for international travel) to support conference participation in a single academic year.

In addition, each academic department within the School of Human Ecology may offer additional professional development grant opportunities. See the program Events Calendar (<https://sohe.wisc.edu/calendar-of-events>) for the most up-to-date information on professional development opportunities.

LEARNING OUTCOMES

1. Articulate challenges, frontiers and limits with respect to theory, knowledge or practice within the area of study.
2. Formulate ideas, concepts, designs, and/or techniques beyond the current boundaries of knowledge within one's area of study.
3. Create research, scholarship or performance that makes a substantive contribution to one's field.
4. Foster ethical conduct and professional guidelines.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (https://sohe.wisc.edu/wordpress/wp-content/uploads/2017/03/MFA_Handbook_DS_Review.pdf) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count up to 20 credits of graduate coursework taken at other institutions or as a UW–Madison Special student (with a maximum of 9 special student credits as part of the 20). Prior coursework taken at other institutions may not be used to satisfy the minimum graduate residence credit requirement. Credits earned five or more years prior to admission to an MFA degree are not allowed to satisfy requirements.

UW–Madison Undergraduate

With program approval, up to 7 credits numbered 300 or above from a UW–Madison undergraduate degree are allowed to count toward degree credit; undergraduate courses must be numbered 700 or above to count toward the minimum graduate coursework requirement. No

undergraduate coursework may count toward graduate residence requirement.

UW–Madison University Special

With program approval, students are allowed to count up to 20 credits of graduate coursework taken at other institutions or as a UW–Madison Special student (with a maximum of 9 special student credits as part of the 20). Special student coursework must be numbered 300 or above for residence and degree credit and 700 or above for minimum graduate coursework (50%) credit.

Credits earned five or more years prior to admission to an MFA degree are not allowed to satisfy requirements. Use of Special student credit may require payment of tuition difference.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies. An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor.

To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

12 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

n/a

PEOPLE

Faculty:

CIVIL SOCIETY AND COMMUNITY STUDIES

Professors: Cynthia Jasper (chair), Constance Flanagan

Associate Professors: Lori Bakken, Brian Christens

Assistant Professors: Kendra Alexander, Jennifer Gaddis, Leah Horowitz, Carolina Sarmiento, Shannon Sparks

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HUMAN DEVELOPMENT AND FAMILY STUDIES

Professors: Janean Dilworth-Bart (chair), Charles Raison, Julie Poehlmann-Tynan, Linda Roberts, Stephen Small

Associate Professors: Larissa Duncan, Sarah Halpern-Meekin, Sigal Hartley, Heather Kirkorian, Robert Nix, Lauren Papp

Assistant Professors: Kristin Litzelman, Margaret Kerr

HUMAN ECOLOGY: DESIGN STUDIES, MFA

This is the only named option within the Human Ecology, MFA (p. 743). Students interested in the Human Ecology, MFA should apply directly to this Human Ecology: Design Studies, MFA named option.

The focus of the MFA degree is on creative performance in design. Its goals are to promote strong and creative conceptual thinking, exploration, interpretation, innovation, and overall excellence in design execution.

SPECIALIZATIONS

Students typically focus their work in one of two general areas:

- *Textile and Fashion Design (TFD)*: TFD students focus on the conceptual, technical and aesthetic possibilities of textiles and clothing.
- *Interior Architecture (IA)*: IA students typically concentrate on the innovative application of aesthetic, conceptual and expressive design strategies in interior environments.

There are many students who may work across these areas or have an even more idiosyncratic integrative focus. In every case, students formulate a plan of study to suit their individual needs.

The course of study requires the completion of a minimum of 60 credits and includes a substantial studio work component. The curriculum seeks to create a foundation with flexibility to fit student needs. Interested students can view course requirements on this page. (p. 747)

ADMISSIONS

Applications are accepted once per year for fall admission and are due by the first Monday in January of the same calendar year for which the student is applying.

Applicants must apply online and pay the required application fee to the Graduate School. Applicants must meet all Graduate School requirements including a bachelor's degree from an accredited institution and an undergraduate GPA of 3.0 or higher (on a 4.0 scale).

REQUIRED ADMISSION MATERIALS

- Online application (<https://grad.wisc.edu/apply>) indicating "Human Ecology MFA-Design Studies" as your program selection
- \$75 application fee
- CV/resume
- Unofficial transcripts or academic records from each institution attended (official transcripts will be required for students who receive an admission offer)
- Official TOEFL or Melab score (International students only)
- Three letters of recommendation (submitted electronically through your Graduate School application)
- Uploaded Statement of Purpose/Reasons for Graduate Study

Submit to the School of Human Ecology:

- Portfolio
 - All MFA applicants must submit a digital portfolio for review. The portfolio should contain no more than 20 images/pages and there is a 5 MB file size limit for each image or page. Applicants will be able to upload portfolios to the University of Wisconsin's Box cloud storage system. Digital folders will be created for applicants within 48–72 hours after their electronic application has been received by UW–Madison's Graduate School. Please contact Eric MacKay, emackay2@wisc.edu, for more information.

Additional information is available here (<http://sohe.wisc.edu/mfa>).

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Funding opportunities for Human Ecology graduate students are available and made possible, in large part, by generous donations to

SoHE. Every year, these funds are used to fund teaching or project assistantships, award academic excellence scholarships, and provide students doing their masters or doctoral research or final MFA project with conference travel scholarships and graduate research scholarships. See the School of Human Ecology Enrollment Policy on Funding Eligibility (<https://sohe.wisc.edu/graduate-students/academic-policies-forms-deadlines/full-time-enrollment-policy-for-funding-eligibility>) and view current funding opportunities on our program website (<https://sohe.wisc.edu/graduate-students/funding>) for more information.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

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Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 60 credits

Minimum Residence Credit Requirement 24 credits

Minimum Graduate Coursework Requirement Half of degree coursework (30 credits out of 60 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Before beginning substantial work on their thesis, all MFA students must receive approval of their thesis proposal from their MFA committee after satisfactorily completing at least three full-time semesters of coursework and passing the MFA Interim Qualifier. The thesis proposal is intended to describe the creative work or project that will be at the core of the thesis, to demonstrate the student's broad knowledge in areas that relate to their thesis, to explain how their work or project relates to the work of other designers and artists, to demonstrate their awareness of relevant theories and methods as reflected in their literature review, to explain their methods and materials, and to outline a detailed schedule for the completion of the thesis.

Upon approval of their thesis proposal, students are expected to register for 9 credits that will represent thesis writing and production. These credits are generally research and thesis credits, independent studies, or required seminars; they must be at the 500 level or above.

All MFA students are required to present their work at least once per academic year in a Group Review Session attended by faculty and the other MFA students. First year students can present their work that they submitted for their application, or work from a course that they have taken. Second year students should present work from their Focus Area student work, or their advanced General Studio work. Third-year students should present their thesis work in progress.

The Group Review Sessions have several goals.

- *Enable MFA students to see what other MFA students are working on.
- *Enable the MFA faculty as a whole to see what all of the MFA students are working on.
- *Enable MFA students to receive constructive review of their work.
- *Enable MFA students to gain experience critiquing and receiving critique.
- *Enable MFA students to gain experience presenting their work.

All MFA students are required to successfully prepare and present a thesis that includes a studio component, a written component, and an oral defense. These are Research and Thesis credits with the student's advisor.

Language Requirements Contact the program for information on any language requirements.

Doctoral Minor/Breadth Requirements All doctoral students are required to complete a minor.

REQUIRED COURSES

Code	Title	Credits
Pre-MFA Preparation Courses ¹		
Pre-MFA preparation courses vary by area of study and may include, but are not limited to, the following courses:		
<i>Textile and Fashion Design</i>		
Textile and/or Fashion History		
<i>Interior Architecture</i>		
DS 241	Visual Communication I	
DS 451	Color Theory and Technology	
DS 222	Interior Design I	
DS 322	Interior Design II	
Core Courses ²		18
As much as possible within their first two years, all MFA students will be expected to enroll in 20-21 credits distributed among the following Core Courses:		
<i>Methods and Theory in Design and Culture</i>		
DS/ANTHRO/ ART HIST/ HISTORY/ LAND ARC 764	Dimensions of Material Culture	
Choose at least one additional course. Suggestions include:		
DS 642	Taste (Recommended)	
ART 700	Introduction to Graduate Studies in Art	
ART HIST 703	Curatorial Studies Colloquium	
<i>Seminar Courses</i>		
DS 920	Seminar in Design Studies	
At least one additional seminar course		
<i>History and Criticism</i>		
ART 508	Colloquium in Art	
Choose from among the following courses:		
Any Art History or Design Studies course focusing on history, 500 level or above		
ART HIST/ AFROAMER 801	Historiography, Theory and Methods in Visual Culture	
ART HIST/ AFROAMER 802	Visual Cultures: Topics in Visual Cultures	
Non-Studio Academic Coursework-Graduate Student Instructor Course ³		
General Studio Work ⁴		9
<i>Required Courses (Interior Architecture concentration only. May be waived for students with substantial portfolios.)</i>		
DS 623	Interior Design IV	
DS 501	Special Topics (Topic: Interior Design V)	
Recommended courses include:		
ART 409	Digital Fabrication Studio	
ART 511	Art Performance	

ART 521	Installations and Environments	
ART 570	Advanced Topics in 4D Art	
ART 660	Art and Technology	
HISTORY 506	History at Work: History Internship Seminar	
Other courses at the 500 level or above in Art or Landscape Architecture		
Focus Area Studio Work ⁵		15
Interim MFA Qualifier ⁶		3
Preparation of Final Thesis		9
Final Thesis		6
Total Credits		60

¹ Particularly in the Interior Architecture track, students may have graduated from an undergraduate program that did not comprehensively prepare them for the level of studio work in the MFA program. However, promising applicants who do not have sufficient educational background may be admitted, under the condition that he or she take pre-MFA preparation courses; if the student satisfactorily completes a pre-MFA series of courses with a 3.3 GPA or above, the student may subsequently advance to full MFA student status. Students will work closely with their major faculty advisor to determine appropriate pre-MFA preparation courses.

² The MFA Core Course curriculum offers an opportunity for all Design Studies students to establish a body of knowledge in theories, creative practices, and seminars relevant to studio based inquiry. The core curriculum also includes specialized training in instruction and pedagogy; this is requisite for graduate teaching assistant duties (often a source of MFA student funding), and useful for students who wish to pursue academic careers. A student who is assigned to a teaching assistantship at the time of admission may take the course(s) during their first semester while fulfilling teaching assistant duties.

³ Choose from: delta.wisc.edu/Courses_and_Programs/courses_and_programs_overview.html (http://www.delta.wisc.edu/Courses_and_Programs/courses_and_programs_overview.html)

⁴ The general studio work provides students with an overview of studio practices that will be the foundation for their Focus Area Studio work, the Qualifier and the Thesis. Students are encouraged to take courses that are offered both inside and outside the Design Studies Department to develop an interdisciplinary framework for their MFA work.

The core curriculum also includes an independent study that will facilitate the production of the Interim MFA Qualifier. MFA students are expected to develop a strong foundation in studio-based inquiry. Students in the Interior Architecture track are strongly encouraged to take both DS 623 Interior Design IV and DS 501 Special Topics (Interior Design V), with the addition of project components tailored to each student's Focus Area. All students are encouraged to take DS 501 Special Topics (Design and Fashion Event Practicum).

⁵ All MFA students, in consultation with their advisor, define a focus area that will help prepare them for their Interim MFA Qualifier and Thesis Proposal. This focus builds on their General Studio Work. Students often do studio work in their focus area as independent studies (DS 699 Independent Study) with appropriate faculty members.

⁶ The Interim MFA Qualifier (Qualifier) is part of the Core Course requirements for every MFA student, and must be successfully

completed prior to receiving final approval of the thesis proposal. The Qualifier provides students with an opportunity to create and present a studio-based project in their area of specialization in preparation for their final thesis. While limited in scope, the project should be comparable to the final thesis in terms of its creative and intellectual tone and quality. The project could be an exhibition that includes some elements that are integrated into a final thesis exhibition (most common for students in the Textile and Fashion Design track), or it could be a presentation and formal dissemination of a pilot design project that serves as a case study for the final thesis (most common for students in the Interior Architecture track). Students are encouraged to disseminate the project broadly, seeking out visibly prominent public venues, incorporating online versions, or presenting at conferences or in design competitions.

The Interim MFA Qualifier may be based on work completed as part of any UW graduate studio course, as well as from independent studies. Students typically enroll in an independent study (DS 699 Independent Study) with their major advisor to complete the Qualifier. The Qualifier must be reviewed and approved by the student's major advisor, in consultation with the student's thesis committee. The project must receive a passing grade in order for the student to receive final approval of their thesis proposal.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

NAMED OPTION-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (https://sohe.wisc.edu/wordpress/wp-content/uploads/2017/03/MFA_Handbook_DS_Review.pdf) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count up to 20 credits of graduate coursework taken at other institutions or as a UW–Madison Special student (with a maximum of 9 special student credits as part of the 20). Prior coursework taken at other institutions may not be used to satisfy the minimum graduate residence credit requirement. Credits earned five or more years prior to admission to an MFA degree are not allowed to satisfy requirements.

UW–Madison Undergraduate

With program approval, up to 7 credits numbered 300 or above from a UW–Madison undergraduate degree are allowed to count toward degree credit; undergraduate courses must be numbered 700 or above to count toward the minimum graduate coursework requirement. No undergraduate coursework may count toward graduate residence requirement.

UW–Madison University Special

With program approval, students are allowed to count up to 20 credits of graduate coursework taken at other institutions or as a UW–Madison Special student (with a maximum of 9 special student credits as part of the 20). Special student coursework must be numbered 300 or above for residence and degree credit and 700 or above for minimum graduate coursework (50%) credit.

Credits earned five or more years prior to admission to an MFA degree are not allowed to satisfy requirements. Use of Special student credit may require payment of tuition difference.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies. An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor.

To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

12 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

n/a

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PROGRAM RESOURCES

The School of Human Ecology Graduate Program values the professional development of graduate students and provides financial awards to

those who are invited to present at professional conferences/exhibits. The purpose of the support is to encourage participation in professional development, scholarly research, and/or creative endeavor and to help cover expenses not covered by other sources. Students may receive a maximum award of \$650 for travel (\$750 for international travel) to support conference participation in a single academic year.

In addition, each academic department within the School of Human Ecology may offer additional professional development grant opportunities. See the program Events Calendar (<https://sohe.wisc.edu/calendar-of-events>) for the most up-to-date information on professional development opportunities.

PEOPLE

Faculty:

CIVIL SOCIETY AND COMMUNITY STUDIES

Professors: Cynthia Jasper (chair), Constance Flanagan

Associate Professors: Lori Bakken, Brian Christens

Assistant Professors: Kendra Alexander, Jennifer Gaddis, Leah Horowitz, Carolina Sarmiento, Shannon Sparks

CONSUMER SCIENCE (CONSUMER BEHAVIOR & FAMILY ECONOMICS)

Professors: Nancy Wong (chair), Judith Bartfeld

Associate Professors: J. Michael Collins, Clifford Robb

Assistant Professors: Feneba Addo, Lydia Ashton, Dee Warmath

DESIGN STUDIES

Professors: Roberto Rengel (chair), Jennifer Angus, Wei Dong, Majid Sarmadi, Mark Nelson

Associate Professors: Mary Hark, Carolyn Kallenborn, Jung-hye Shin

Assistant Professors: Marianne Fairbanks, Marina Moskowitz, Kevin Ponto, Kristin Thorleifsdottir

HUMAN DEVELOPMENT AND FAMILY STUDIES

Professors: Janean Dilworth-Bart (chair), Charles Raison, Julie Poehlmann-Tynan, Linda Roberts, Stephen Small

Associate Professors: Larissa Duncan, Sarah Halpern-Meekin, Sigal Hartley, Heather Kirkorian, Robert Nix, Lauren Papp

Assistant Professors: Kristin Litzelman, Margaret Kerr

HUMAN ECOLOGY, PH.D.

Human ecology is the study of the complex relationships between human beings and their environments. The school offers a doctorate of philosophy within four named options/specializations:

- Civil Society and Community Research (p. 753) (CSCR)
- Consumer Behavior and Family Economics (p. 756) (CBFE)
- Design Studies (p. 759) (DS)
- Human Development and Family Studies (p. 765) (HDFS)

Each named option has its own faculty, curriculum, requirements and includes a challenging array of coursework along with exciting opportunities for research, outreach, and service consistent with each student's scholarly interests and career aspirations.

As part of a Research I institution, SoHE faculty members have national reputations in their fields of study and are highly committed to nurturing future scholars and practitioners. They conduct research and mentor students to address issues that cross disciplinary lines. They work closely with graduate students to create courses of study that match each student's personal and professional goals.

The School of Human Ecology has a strong tradition of outreach and counts several faculty members with budgeted extension appointments among its ranks. But all faculty members devote time and resources to ensuring their work benefits others beyond the campus. These efforts reflect the Wisconsin Idea, (<http://wisconsinidea.wisc.edu>) the notion that the university's boundaries are those of the state, nation, and beyond. Graduate education at SoHE encompasses this mission by stressing the integration of research with program design and implementation, administration, policy development, and evaluation.

ADMISSIONS

Students interested in the Human Ecology Ph.D. should apply directly to one of the named options:

- Civil Society and Community Research (p. 753) (CSCR)
- Consumer Behavior and Family Economics (p. 757) (CBFE)
- Design Studies (p. 760) (DS)
- Human Development and Family Studies (p. 765) (HDFS)

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Funding opportunities for Human Ecology graduate students are available and made possible, in large part, by generous donations to SoHE. Every year, these funds are used to fund teaching or project assistantships, award academic excellence scholarships, and provide students doing their masters or doctoral research or final MFA project with conference travel scholarships and graduate research scholarships. See the School of Human Ecology Enrollment Policy on Funding Eligibility (<https://sohe.wisc.edu/graduate-students/academic-policies-forms-deadlines/full-time-enrollment-policy-for-funding-eligibility>) and view current funding opportunities on our program website (<https://sohe.wisc.edu/graduate-students/funding>) for more information.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

Note: The major does not typically admit students. Students are admitted through one of the named options (sub-majors) below (p. 751).

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 51 credits

Minimum Residence Credit Requirement 32 credits

Minimum Graduate Coursework Requirement Half of degree coursework (26 credits out of 51 total credits) must be completed in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle>).

Overall Graduate GPA Requirement See one of the named options for specific policy information.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations See one of the named options for specific policy information.

Language Requirements Contact the program for information on any language requirements.

REQUIRED COURSES

Select a Named Option (p. 751) for courses required.

NAMED OPTIONS (SUB-MAJORS)

A named option is a formally documented sub-major within an academic major program. Named options appear on the transcript with degree conferral. Students pursuing the Ph.D. in Human Ecology should select one of the following named options:

- Human Ecology: Civil Society and Community Research, Ph.D. (p. 753)
- Human Ecology: Consumer Behavior and Family Economics, Ph.D. (p. 756)
- Human Ecology: Design Studies, Ph.D. (p. 759)
- Human Ecology: Human Development and Family Studies, Ph.D. (p. 765)

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

Please see each named option below for its handbook:

- Civil Society and Community Research (p. 755) (CSCR)
- Consumer Behavior and Family Economics (p. 758) (CBFE)
- Design Studies (p. 764) (DS)
- Human Development and Family Studies (p. 767) (HDFS)

PRIOR COURSEWORK

Graduate Work from Other Institutions

Please see each named option below for its specific policy:

- Civil Society and Community Research (p. 755) (CSCR)
- Consumer Behavior and Family Economics (p. 758) (CBFE)
- Design Studies (p. 764) (DS)

- Human Development and Family Studies (p. 767) (HDFS)

UW–Madison Undergraduate

Please see each named option below for its specific policy:

- Civil Society and Community Research (p. 755) (CSCR)
- Consumer Behavior and Family Economics (p. 758) (CBFE)
- Design Studies (p. 764) (DS)
- Human Development and Family Studies (p. 767) (HDFS)

UW–Madison University Special

Please see each named option below for its specific policy:

- Civil Society and Community Research (p. 755) (CSCR)
- Consumer Behavior and Family Economics (p. 758) (CBFE)
- Design Studies (p. 764) (DS)
- Human Development and Family Studies (p. 767) (HDFS)

PROBATION

Please see each named option below for its specific policy:

- Civil Society and Community Research (p. 755) (CSCR)
- Consumer Behavior and Family Economics (p. 758) (CBFE)
- Design Studies (p. 764) (DS)
- Human Development and Family Studies (p. 767) (HDFS)

ADVISOR / COMMITTEE

Please see each named option below for its specific policy:

- Civil Society and Community Research (p. 755) (CSCR)
- Consumer Behavior and Family Economics (p. 758) (CBFE)
- Design Studies (p. 764) (DS)
- Human Development and Family Studies (p. 767) (HDFS)

CREDITS PER TERM ALLOWED

Please see each named option below for its specific policy:

- Civil Society and Community Research (p. 755) (CSCR)
- Consumer Behavior and Family Economics (p. 758) (CBFE)
- Design Studies (p. 764) (DS)
- Human Development and Family Studies (p. 767) (HDFS)

TIME CONSTRAINTS

Please see each named option below for its specific policy:

- Civil Society and Community Research (p. 755) (CSCR)
- Consumer Behavior and Family Economics (p. 758) (CBFE)
- Design Studies (p. 764) (DS)

- Human Development and Family Studies (p. 767) (HDFS)

OTHER

Additional school-wide policies are available here (<https://sohe.wisc.edu/graduate-students/academic-policies-forms-deadlines>).

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PROGRAM RESOURCES

The School of Human Ecology Graduate Program values the professional development of graduate students and provides financial awards to those who are invited to present at professional conferences/exhibits. The purpose of the support is to encourage participation in professional development, scholarly research, and/or creative endeavor and to help cover expenses not covered by other sources. Students may receive a maximum award of \$650 for travel (\$750 for international travel) to support conference participation in a single academic year.

In addition, each academic department within the School of Human Ecology may offer additional professional development grant opportunities. See the program Events Calendar (<https://sohe.wisc.edu/calendar-of-events>) for the most up-to-date information on professional development opportunities.

LEARNING OUTCOMES

1. Articulate challenges, frontiers and limits with respect to theory, knowledge or practice within the area of study.
2. Formulate ideas, concepts, designs, and/or techniques beyond the current boundaries of knowledge within one's area of study.
3. Consider the role of social, political, ethical, and economic contexts of research and creative scholarship in one's area of study.
4. Consider the role of multiple paradigms for describing reality in one's area of study.
5. Contribute to advancing the Human Ecology perspective by reflecting the relations among humans and their natural, social, and built environments and applying an interdisciplinary and/or transdisciplinary lens in one's area of professional practice.
6. Create research, scholarship or performance that makes a substantive contribution to one's field.
7. Reflect the nature and significance of diversity in one's area of professional practice.
8. Communicate complex or ambiguous ideas in a compelling manner to a variety of audiences.
9. Foster ethical conduct and professional guidelines.

PEOPLE

Faculty:

CIVIL SOCIETY AND COMMUNITY STUDIES

Professors: Cynthia Jasper (chair), Constance Flanagan

Associate Professors: Lori Bakken, Brian Christens

Assistant Professors: Kendra Alexander, Jennifer Gaddis, Leah Horowitz, Carolina Sarmiento, Shannon Sparks

CONSUMER SCIENCE (CONSUMER BEHAVIOR & FAMILY ECONOMICS)

Professors: Nancy Wong (chair), Judith Bartfeld

Associate Professors: J. Michael Collins, Clifford Robb

Assistant Professors: Feneba Addo, Lydia Ashton, Dee Warmath

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HUMAN DEVELOPMENT AND FAMILY STUDIES

Professors: Janean Dilworth-Bart (chair), Charles Raison, Julie Poehlmann-Tynan, Linda Roberts, Stephen Small

Associate Professors: Larissa Duncan, Sarah Halpern-Meekin, Sigan Hartley, Heather Kirkorian, Robert Nix, Lauren Papp

Assistant Professors: Kristin Litzelman, Margaret Kerr

HUMAN ECOLOGY: CIVIL SOCIETY AND COMMUNITY RESEARCH, PH.D.

This is a named option within the Human Ecology, Ph.D. (p. 750)

The Human Ecology Ph.D. named option in Civil Society and Community Research (CSCR) focuses on theoretical foundations of grassroots institutions, nonprofit organizations, voluntary associations, and social networks that strive to benefit the common good. The program emphasizes mixed method inquiries that integrate participatory approaches with advanced quantitative and qualitative analysis. The program prepares students to use the processes of research and outreach to strengthen civil society.

The civil society and community research faculty areas of research include: civil society, the nonprofit sector, civic engagement, developmental psychology, community and organizational development, youth civic engagement, community psychology, applied medical anthropology, sustainability, education, inter-generational partnerships, program evaluation and learning assessment, community–university partnerships, and philanthropy and giving.

The CSCR program is served by a multidisciplinary faculty who are professionally active and have strong records of national and international scholarship. They bring perspectives of many disciplines to their work, including community psychology, developmental psychology, sociology, education, medical and cultural anthropology, transformative evaluation and community action. Reflecting the multidisciplinary orientation of the program, faculty possess expertise in areas as diverse as longitudinal modeling, interpretive interviewing, mixed methods study designs, various mapping techniques, observational methods, survey methodology, community-based research, and ethnography.

The CSCR program is committed to collaborations between faculty and graduate students in the arenas of research, teaching, and outreach. Current areas of scholarly activity include youth civic engagement, community organizing, inter-generational partnerships, social trust, program evaluation, coalition building, voluntary associations, adult learning, community development, place-based education and stewardship, and social change. Faculty and students not only conduct research in these areas, they affirmatively support policies and programs. The department maintains strong affiliations with the University of Wisconsin Extension, Cooperative Extension's Divisions of Youth Development, Family Living, and Program Planning and Evaluation.

Graduates of CSCR are prepared for careers as professors in academic departments of human ecology, community development, community research and action, nonprofit management, community sociology, and applied developmental science. Students will also be prepared for careers as senior staff in technical assistance organizations, foundations, public agencies and advocacy/public education units. Others will choose to use their research and consultation skills to support grassroots organizations.

ADMISSIONS

Applications are accepted once per year for Fall admission and are due by December 1st of the preceding year. To be considered for admission to the Civil Society and Community Research (CSCR) Ph.D. option in Human Ecology, the department requires the following materials:

- Online application (<https://grad.wisc.edu/apply>) indicating “Human Ecology PHD–Civil Society & Comm Research” as your program selection
- \$75 application fee
- Curriculum vitae/resume
- Unofficial transcripts (official transcripts will be required for students who receive an admission offer)
- Official Graduate Record Exam scores (GRE Institution code #1846)
- International students only:
 - Official Test of English as a Foreign Language (TOEFL) or Melab scores
 - International students who hold degrees from U.S. institutions do not need to submit language test scores
- Three letters of recommendation (submitted electronically through your Graduate School application)
- Uploaded Statement of Purpose/Reasons for Graduate Study
 - Statement should also include your reasons for studying or seeking a specialization in Civil Society and Community Research. Please indicate these reasons in a separate section of your statement titled, “Reasons for Specializing in Civil Society and Community Research”

- Upload a writing sample
 - Examples of writing samples include prior scholarly work such as term papers, theses, or published articles. All writing samples must be written in English and uploaded to the online application system as a PDF.

Additional information is available on the program website (<https://sohe.wisc.edu/graduate-students/research-and-creative-scholarship/civil-society-community-research>).

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Funding opportunities for Human Ecology graduate students are available and made possible, in large part, by generous donations to SoHE. Every year, these funds are used to fund teaching or project assistantships, award academic excellence scholarships, and provide students doing their masters or doctoral research or final MFA project with conference travel scholarships and graduate research scholarships. See the School of Human Ecology Enrollment Policy on Funding Eligibility (<https://sohe.wisc.edu/graduate-students/academic-policies-forms-deadlines/full-time-enrollment-policy-for-funding-eligibility>) and view current funding opportunities on our program website (<https://sohe.wisc.edu/graduate-students/funding>) for more information.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses

and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules.

Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement	51 credits
Minimum Residence Credit Requirement	32 credits
Minimum Graduate Coursework Requirement	Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.
Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.
Assessments and Examinations	Doctoral students are required to take a comprehensive preliminary/oral examination after they have cleared their record of all Incomplete and Progress grades (other than research and thesis). Deposit of the doctoral dissertation in the Graduate School is required.
Language Requirements	Contact the program for information on any language requirements.
Doctoral Minor/Breadth Requirements	All doctoral students are required to complete a minor.

REQUIRED COURSES

Code	Title	Credits
Introductory Courses		6
CSCS 801	Special Topics in Civil Society and Community Research (Proseminar: Engaged Scholarship—1 credit)	

INTER-HE 801	Special Topics in Human Ecology (Theory and Perspectives of Human Ecology—2 credits)	
INTER-HE 793	Research Methods (3 credits)	
Theoretical Foundations		9
CSCS 675	General Topics (Building Civil Society—3 credits)	
CSCS 501	Special Topics (Civic Development Across the Lifespan—3 credits)	
CSCS 801	Special Topics in Civil Society and Community Research (Community Power and Collective Action—3 credits)	
Methods and Applications of Community-Based Research		
<i>Applications of Community-based research</i>		9
CSCS 501	Special Topics (Evaluation Research in Practice—3 credits)	
CSCS 801	Special Topics in Civil Society and Community Research (Mixed Methods and Community Action Research—3 credits)	
CSCS 811	Community-Based Research: Theory and Practice (3 credits)	
<i>Research Methods</i>		9
Qualitative Data Collection & Analysis ¹		
Quantitative Designs & Statistical Methods ²		
Methods Elective ³		
Community Innovations for Civil Society ⁴		3
Minor Specialization ⁵		9
Research and Thesis		6
CSCS 990	Research and Thesis	
Total Credits		51

¹ Recommended: ED PSYCH 711 Current Topics in Educational Psychology

² Recommended: ED PSYCH 762, ED PSYCH 763, ELPA/ED PSYCH 964, or SOC/C&E SOC 977

³ Courses to be selected in consultation with your advisor. Any of these courses not taken to fulfill the qualitative or quantitative methods requirement: ED PSYCH/ELPA 827, SOC 751, SOC 752, or ED PSYCH 570.

⁴ Topics rotate during Fall semester.

- Organizational and Community Learning (3 credits)
- Social Entrepreneurship and Philanthropy (3 credits)
- Cross-national Perspective on Civil Society (3 credits)

⁵ Suggested elective courses for the minor: SOC/C&E SOC/URB R PL 617, CURRIC 975, HDFS 664, HDFS 872, NURSING 761, SOC/C&E SOC 573, SOC WORK 741, or PUB AFFR/POLI SCI 885.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies

beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

NAMED OPTION-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://sohe.wisc.edu/wordpress/wp-content/uploads/2017/09/CSCR-Graduate-Handbook-Fall-2017-1.pdf>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count up to 18 credits of graduate coursework taken at other institutions or as a UW–Madison Special student (with a maximum of 9 special student credits as part of the 18). Prior coursework taken at other institutions may not be used to satisfy the minimum graduate residence credit requirement. Credits earned ten or more years prior to admission to a doctoral degree are not allowed to satisfy requirements.

UW–Madison Undergraduate

With program approval, up to 7 credits numbered 300 or above from a UW–Madison undergraduate degree are allowed to count toward degree credit; undergraduate courses must be numbered 700 or above to count toward the minimum graduate coursework requirement. No undergraduate coursework may count toward the graduate residence requirement.

UW–Madison University Special

With program approval, students are allowed to count up to 18 credits of graduate coursework taken at other institutions or as a UW–Madison Special student (with a maximum of 9 special student credits as part of the 18). Coursework must be numbered 300 or above for residence and degree credit and 700 or above to satisfy the minimum graduate coursework (50%) requirement. Credits earned ten or more years prior to admission to a doctoral degree are not allowed to satisfy requirements. Use of Special student credit may require payment of tuition difference.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies. An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor.

To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

12 credits

TIME CONSTRAINTS

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

OTHER

n/a

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PROGRAM RESOURCES

The School of Human Ecology Graduate Program values the professional development of graduate students and provides financial awards to those who are invited to present at professional conferences/exhibits. The purpose of the support is to encourage participation in professional development, scholarly research, and/or creative endeavor and to help cover expenses not covered by other sources. Students may receive a maximum award of \$650 for travel (\$750 for international travel) to support conference participation in a single academic year.

In addition, each academic department within the School of Human Ecology may offer additional professional development grant opportunities. See the program Events Calendar (<https://sohe.wisc.edu/calendar-of-events>) for the most up-to-date information on professional development opportunities.

PEOPLE

Faculty:

CIVIL SOCIETY AND COMMUNITY STUDIES

Professors: Cynthia Jasper (chair), Constance Flanagan

Associate Professors: Lori Bakken, Brian Christens

Assistant Professors: Kendra Alexander, Jennifer Gaddis, Leah Horowitz, Carolina Sarmiento, Shannon Sparks

CONSUMER SCIENCE (CONSUMER BEHAVIOR & FAMILY ECONOMICS)

Professors: Nancy Wong (chair), Judith Bartfeld

Associate Professors: J. Michael Collins, Clifford Robb

Assistant Professors: Feneba Addo, Lydia Ashton, Dee Warmath

DESIGN STUDIES

Professors: Roberto Rengel (chair), Jennifer Angus, Wei Dong, Majid Sarmadi, Mark Nelson

Associate Professors: Mary Hark, Carolyn Kallenborn, Jung-hye Shin

Assistant Professors: Marianne Fairbanks, Marina Moskowitz, Kevin Ponto, Kristin Thorleifsdottir

HUMAN DEVELOPMENT AND FAMILY STUDIES

Professors: Janean Dilworth-Bart (chair), Charles Raison, Julie Poehlmann-Tynan, Linda Roberts, Stephen Small

Associate Professors: Larissa Duncan, Sarah Halpern-Meekin, Sigan Hartley, Heather Kirkorian, Robert Nix, Lauren Papp

Assistant Professors: Kristin Litzelman, Margaret Kerr

HUMAN ECOLOGY: CONSUMER BEHAVIOR AND FAMILY ECONOMICS, PH.D.

This is a named option within the Human Ecology, Ph.D. (p. 750)

The Department of Consumer Science develops and disseminates information on the ways in which the interactions among consumers, business, and government can enhance the interests and well-being of consumers, families, and communities. The program focuses on various dimensions of well-being including economic/financial security, consumer empowerment, health, food security, housing security, sustainability, and the public policy that affects those dimensions of well-being. The program is interdisciplinary; current faculty have degrees in diverse fields including economics, marketing, sociology, retailing, social work, and consumer science. Some faculty have joint appointments with Cooperative Extension, providing students with opportunities for training in outreach and applied research. Ph.D. students work closely with faculty members, often collaborating on research and outreach programs.

Ph.D. students work closely with faculty members, often collaborating on research and outreach programs. Ph.D. concentrations include both consumer behavior and family economics; however all Ph.D. students must complete core courses in consumer behavior, family economics, and research methods.

Students undertake research on consumer decision-making affecting the social and economic well-being of individuals and families. This is a multi-disciplinary degree program. The goal of this program is to prepare students for the following types of job placements:

1. Tenure-track academic faculty positions, primarily in other schools of human ecology, consumer science or related units

2. Research administration positions in government, non-tenure academic units, nonprofit organizations, think tanks and related entities
3. Applied consumer research in the public and private sector, including market research, policy research and consulting.

ADMISSIONS

Applications are accepted once per year for Fall admission and are due by December 1st of the preceding year. Admission to the Consumer Behavior & Family Economics (CBFE) Ph.D. option in Human Ecology is based on academic merit and fit with the research strengths of the Consumer Science faculty. As such, the student's Statement of Purpose should clearly indicate how their research interests correspond to the Ph.D. program and faculty strengths.

Applicants with a background in consumer science or related social science disciplines such as economics, political science, and sociology and in research methods and statistics will have the greatest chance of success. Students are eligible to be directly admitted to the Ph.D. program following successful completion of a bachelor's degree.

Applicants should have successfully completed college-level courses covering subjects including introductory and intermediate microeconomics, consumer behavior, research methods, statistics and regression analysis, and calculus. Students who fail to meet the minimum course requirements for admission may still be admitted to the program but be required to take additional courses. An interview by phone or in person may be required.

To be considered for admission to the Consumer Behavior & Family Economics (CBFE) Ph.D. option in Human Ecology, the department requires the following materials:

- Online application (<https://grad.wisc.edu/apply>) indicating "Human Ecology PHD-Consumr Behav & Family Econ" as your program selection
- \$75 application fee
- Curriculum vitae/resume
- Unofficial transcripts or academic records from each institution attended (official transcripts will be required for students who receive an admission offer)
- Official Graduate Record Exam or GMAT scores (GRE Institution code #1846)
- International students only:
 - Official Test of English as a Foreign Language (TOEFL) or Melab scores
 - International students who hold degrees from U.S. institutions do not need to submit language test scores
- Three letters of recommendation (Submitted electronically through your Graduate School application)
- Uploaded Statement of Purpose/Reasons for Graduate Study

Additional information is available on the program website (<https://sohe.wisc.edu/graduate-students/research-and-creative-scholarship/consumer-behavior-family-economics>).

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements

of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Funding opportunities for Human Ecology graduate students are available and made possible, in large part, by generous donations to SoHE. Every year, these funds are used to fund teaching or project assistantships, award academic excellence scholarships, and provide students doing their masters or doctoral research or final MFA project with conference travel scholarships and graduate research scholarships. See the School of Human Ecology Enrollment Policy on Funding Eligibility (<https://sohe.wisc.edu/graduate-students/academic-policies-forms-deadlines/full-time-enrollment-policy-for-funding-eligibility>) and view current funding opportunities on our program website (<https://sohe.wisc.edu/graduate-students/funding>) for more information.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement	51 credits
Minimum Residence Credit Requirement	32 credits
Graduate Coursework Requirement	Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.
Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.
Assessments and Examinations	Doctoral students are required to take a comprehensive preliminary/oral examination after they have cleared their record of all Incomplete and Progress grades (other than research and thesis). Deposit of the doctoral dissertation in the Graduate School is required.
Language Requirements	Contact the program for information on any language requirements.
Doctoral Minor/Breadth Requirements	All doctoral students are required to complete a minor.

REQUIRED COURSES

Code	Title	Credits
Consumer Science Theory Courses		9
CNSR SCI 748	The Economic Organization of the Household (Required)	
CNSR SCI 888	Advanced Consumer Behavior (Required)	
CNSR SCI 901	Graduate Special Topics in Consumer Science	
CNSR SCI 930	Seminar in Family Economic Policy	
Consumer Science Methods Course		3
CNSR SCI 901	Graduate Special Topics in Consumer Science	
Human Ecology Core Courses		6
INTER-HE 801	Special Topics in Human Ecology (Human Ecology Theories & Perspectives)	
CSCS 801	Special Topics in Civil Society and Community Research (Proseminar)	
INTER-HE 793	Research Methods	

Statistics	9
A A E 636	Applied Econometric Analysis I
<i>Choose two additional 3-credit courses in consultation with your advisor to fulfill this requirement</i>	
Research Methods	6
Doctoral Minor	9
Graduate Electives	6
Research & Thesis	3
Total Credits	51

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

NAMED OPTION-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://sohe.wisc.edu/wordpress/wp-content/uploads/2017/05/CBFE-Graduate-Handbook-2017-18.pdf>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

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The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

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To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

12 credits

TIME CONSTRAINTS

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

OTHER

n/a

In addition, each academic department within the School of Human Ecology may offer additional professional development grant opportunities. See the program Events Calendar (<https://sohe.wisc.edu/calendar-of-events>) for the most up-to-date information on professional development opportunities.

PEOPLE

Faculty:

CIVIL SOCIETY AND COMMUNITY STUDIES

Professors: Cynthia Jasper (chair), Constance Flanagan

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HUMAN DEVELOPMENT AND FAMILY STUDIES

Professors: Janean Dilworth-Bart (chair), Charles Raison, Julie Poehlmann-Tynan, Linda Roberts, Stephen Small

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Assistant Professors: Kristin Litzelman, Margaret Kerr

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PROGRAM RESOURCES

The School of Human Ecology Graduate Program values the professional development of graduate students and provides financial awards to those who are invited to present at professional conferences/exhibits. The purpose of the support is to encourage participation in professional development, scholarly research, and/or creative endeavor and to help cover expenses not covered by other sources. Students may receive a maximum award of \$650 for travel (\$750 for international travel) to support conference participation in a single academic year.

HUMAN ECOLOGY: DESIGN STUDIES, PH.D.

This is a named option within the Human Ecology Ph.D. (p. 750)

Within the Design Studies Graduate Program, faculty and students investigate a wide range of subject matter and apply a variety of methods, with the common goal of understanding how design (broadly conceived) relates to, responds to, and affects our lives. The program's graduate faculty is comprised of interdisciplinary scholars, designers, scientists and artists who mentor and assist graduate students as they build individual programs of study. The Design Studies department offers a doctoral program with the aim of preparing students for professional design careers, specialized research, college teaching, museum or archival work, community engagement, and entrepreneurial endeavors.

The graduate program in Design Studies is housed within the School of Human Ecology. The Ph.D. program capitalizes on the many rich resources offered at the University of Wisconsin-Madison. As a public research university, UW-Madison is known for its high quality of research activity (ranked third in the nation) and comprehensive academic programs at both the undergraduate and graduate levels. The university environment provides fertile ground for interdisciplinary research necessary for twenty-first-century students to prepare for work in a fast evolving discipline with shifting boundaries and growing global connections. UW's world-class faculty and staff offer innovative approaches to curriculum and research. The UW-Madison campus is home to 40 libraries, nearly 100 research centers, a state-of-art virtual reality facility, and the Chazen Museum of Art (one of the nation's leading university art museums).

The Doctor of Philosophy (Ph.D.) in Design Studies is the highest degree in the field of design research and scholarship. The program is grounded in the production of original and rigorous research. Students are encouraged to shape their own approaches as they develop mastery of the research and communication skills necessary to complete their research agendas. Through a combination of core courses, concentrations, major specializations, and minor specializations, students acquire content knowledge, theoretical foundations, and methodological approaches needed for their work. The Ph.D. culminates in the production of a doctoral dissertation that contributes to the knowledge base in the discipline of design. Graduates of the program have demonstrated their leadership in the field of design practice and education in the U.S. and internationally.

The Ph.D. program currently offers three areas of concentration. Within each area, students are expected to build a self-directed but highly coherent curriculum in close consultation with a major faculty advisor. The tracks are:

Design History (DH Track)¹

Design History seeks to understand design in its historical context, as both a process and a product. Our program defines design broadly to include architecture, interior design, industrial design, decorative arts, and other areas of material culture. The Design Studies department offers many opportunities for interdisciplinary study on the UW-Madison campus and has strong ties to other disciplines including art history and landscape architecture. Design History Ph.D. students also have access to coursework and faculty members from allied programs, including the Material Culture Studies Certificate and the Buildings-Landscapes-Cultures Program (a collaborative research degree offered through UW-Madison and UW-Milwaukee).

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Environmental Design Research (EDR Track)¹

Environmental Design Research addresses the interaction between people and they're built, natural, and/or virtual environments with a clear goal to create environments that are sustainable and responsive to human needs. The faculty and graduates of the program have pioneered studies in environment-behavior, evidence-based design, building evaluation, sustainability, aging and environment, children's environment, environments for special population, and emerging technologies and applications of virtual reality.

While drawing from campus-wide resources, the faculty and students in EDR closely work with its allies within the School of Human Ecology, which include community psychologists, developmental psychologists, and scholars from consumer science. EDR students also have the opportunity to work with the Department of Planning and Landscape Architecture, and with the UW-Milwaukee School of Architecture and Urban Planning.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Textile Science (TS)¹

Textile Science investigates on the interaction of dyes and finishes with fibers, yarns, and fabrics. Faculty and students in this program focus on sustainability and work to develop chemicals and processes that are safer for the end-user, textile workers, and the environment. Students achieve this by developing and using chemicals, dyes, and finishes, and by reducing the amount of chemicals, water, and energy used in these processes. The DS Textile Lab offers equipment for textile quality control, dyeing, finishing, and plasma. The Materials Science Lab offers analytical equipment such as ESCA, an Atomic Force Microscope, an Electron Microscope, and FTIR. Depending on their research interests, students will have the opportunity to work with other UW departments including Chemistry, Material Science, Forestry, or Electrical and Computer Engineering.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

ADMISSIONS

Applications are accepted once per year for fall admission and are due by December 1 of the preceding year. Admission to the Ph.D. program is highly competitive. The Ph.D. builds on knowledge acquired typically through a master's degree and provides students with further training to teach and conduct research at the highest level. Competitive candidates will hold a master's degree (M.S. preferred) in design, architectural history, environmental design, or other related fields. Promising applicants who do not have sufficient educational background may be admitted, under the condition that he or she take pre-doctoral preparation courses.

To be considered for admission to the Design Studies (DS) Ph.D. option in Human Ecology, the department requires the following materials:

- Online application (<https://grad.wisc.edu/apply>) indicating "Human Ecology PHD-Design Studies" as your program selection
- \$75 application fee
- Curriculum vitae/resume
- Unofficial transcripts or academic records from each institution attended (official transcripts will be required for students who receive an admission offer)
- Official Graduate Record Exam scores (GRE Institution code #1846)
- International students only:
 - Official Test of English as a Foreign Language (TOEFL) or Melab scores

- International students who hold degrees from U.S. institutions do not need to submit language test scores
- Three letters of recommendation (submitted electronically through your Graduate School application)
- Uploaded Statement of Purpose/Reasons for Graduate Study
- Upload a writing sample
 - Examples of writing samples include prior scholarly work such as term papers, theses, or published articles. All writing samples must be written in English and uploaded to the online application system as a PDF.
- Personal bio statement
 - Describe concisely how your personal background and life experiences motivated you to further pursue graduate education. The personal biographical statement is not a statement of purpose that describes your academic plan. This statement should be no more than 500 words and should be uploaded to the online application system as a PDF.

Additional information is available on the program website (<https://sohe.wisc.edu/graduate-students/research-and-creative-scholarship/design-studies>).

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Funding opportunities for Human Ecology graduate students are available and made possible, in large part, by generous donations to SoHE. Every year, these funds are used to fund teaching or project assistantships, award academic excellence scholarships, and provide students doing their masters or doctoral research or final MFA project with conference travel scholarships and graduate research scholarships. See the School of Human Ecology Enrollment Policy on Funding Eligibility (<https://sohe.wisc.edu/graduate-students/academic-policies-forms-deadlines/full-time-enrollment-policy-for-funding-eligibility>) and view current funding opportunities on our program website (<https://sohe.wisc.edu/graduate-students/funding>) for more information.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement	51 credits
Minimum Residence Credit Requirement	32 credits
Minimum Graduate Coursework Requirement	Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.
Overall Graduate GPA Requirement	3.30 GPA required.
Other Grade Requirements	The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Qualifying Research Project: The Qualifying Research Project (3 credits) is part of the Core Course requirements for every Ph.D. student, and must be completed prior to preliminary exams. The Qualifying Research Project provides students with an opportunity to conduct independent research in their area of specialization in preparation for their dissertation. While limited in scope, the project should be comparable to the final dissertation in terms of its intellectual tone and quality. The project could be a self-contained research paper that could later be incorporated into one of chapters in the final dissertation, building theoretical model for the dissertation, or proposal and conduct of pilot study for their final dissertation. Students are encouraged to disseminate the project broadly, in the format of conference papers or published journal articles in their respective fields.

The Qualifying Research Project may be based on work completed as part of any UW graduate seminar. Students often enroll in an independent study with their major advisor to complete this project. The project must be submitted to and approved by student's major advisor; the project must receive a passing grade in order for the student to sit for the preliminary examination.

Preliminary Examination: All Ph.D. students sit for a preliminary examination after satisfactorily completing coursework and the Qualifying Research Project. The exam is intended to demonstrate the students' broad knowledge in the field of design, and specialized expertise in both a major and a minor area. Students must pass the preliminary examination before submitting a dissertation proposal, and before advancing to dissertator status.

Research and Thesis: Students with dissertator status are expected to enroll for 3 credits directly related to dissertation research or production. These credits are generally research and thesis credits, independent studies, or required seminars; they must be at the 300 level or above. Three credits is the minimum credit load per semester for dissertators during each of the fall and spring semesters; this is considered a full time load. Dissertators must register for 3 credits each semester until the Ph.D. thesis is filed.

Language Requirements Foreign language proficiency may be required for students in the Design History track; if their major or minor areas or dissertation requires work in a language other than English. Students in EDR Track may be required to fulfill the foreign language requirement if the student's research involves the use of a language other than English. Competency may be acquired independently or through structured coursework and is assessed through examination. Exams must be taken before students advance to dissertator status.

Doctoral Minor/Breadth Requirements All doctoral students are required to complete a minor.

REQUIRED COURSES

Ph.D. students must complete a minimum of 51 credits. Of these, 42 credits will include Core Courses, courses in a Major Area of Specialization (Design History or "DH track"; Environmental Research Design or "EDR track"; or Textile Science or "TS track")¹, courses in a Minor Area of Specialization, and a Qualifying Research Project. The remaining 13 credits may be fulfilled through foreign language competencies, independent studies (i.e. to prepare for qualifying examinations), or Dissertator credits. At least 50% of credits (26 of 51 total credits) applied toward the doctorate degree must be from courses designed for graduate work; courses numbered 700 and above or courses numbered 300–699 that assess graduate students separately from undergraduate students generally satisfy this requirement. Students must maintain a 3.3-grade point average to remain in good standing.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Code	Title	Credits
Pre-Doctoral Preparation Courses ¹		
<i>Design History</i>		
	Art / Architecture / Design History Survey (2 courses)	
	Design History or Art History Research Methods (1 course)	
	Design History Research Seminar (1 course)	
<i>Environmental Design Research</i>		
Introductory research methods (2 courses):		
INTER-HE 793	Research Methods	
HDFS 425	Research Methods in Human Development and Family Studies	
SOC/ C&E SOC 357	Methods of Sociological Inquiry	
Introductory statistics course (2 courses):		
STAT 301	Introduction to Statistical Methods	
STAT 302	Accelerated Introduction to Statistical Methods	
STAT 371	Introductory Applied Statistics for the Life Sciences	
Classical Sociological Theory:		
SOC/ C&E SOC 475	Classical Sociological Theory	
<i>Textile Science</i>		
STAT 312	Introduction to Theory and Methods of Mathematical Statistics II	
STAT 333	Applied Regression Analysis	
STAT/M E 424	Statistical Experimental Design	
STAT/MATH 431	Introduction to the Theory of Probability	
Core Courses ²		15
Prior to doctoral candidacy, all Ph.D. students will be expected to enroll in 15 credits distributed among the following Core Courses:		
DS 920	Seminar in Design Studies	
<i>Design Studies Seminar (select one as appropriate):</i>		

DS 221	Person and Environment Interactions (EDR track only)
DS 920	Seminar in Design Studies (Topic: Seminar in Design History; DH track only) ³
DS 920	Seminar in Design Studies (Topic: Seminar in New Developments in Textiles; TS track only) ³

Research Design and Methods (select one as appropriate):

Methods for Design History (select from Dimensions in Material Culture, Architectural History Methods, or Art History Methods) (DH track only)	
DS/F&W ECOL/ URB R PL 955	Practical Research Design and Methods of Empirical Inquiry (EDR track only)
DS 920	Seminar in Design Studies (Topic: Textile Science Research Methods; TS track only)

Graduate Student Instructor Course

<i>Qualifying Research Project</i>	
Major Area of Specialization ⁴	15
Minor Area of Specialization (Doctoral Minor) ⁵	9
Qualifying Research Project	3
Qualifying Exam/Preliminary Exam (Non credit)	
Elective Credits	6
Research and Thesis	3
Total Credits	51

¹ Promising applicants who do not have sufficient educational background may be admitted, under the condition that he or she take pre-doctoral preparation courses; if the student satisfactorily completes a pre-doctoral course with a 3.3 GPA or above, the student may subsequently advance to full doctoral student status. Students will work closely with their major faculty advisor to determine appropriate pre-doctoral preparation courses.

² The Ph.D. Core Course curriculum offers an opportunity for all Design Studies students to establish a foundational knowledge of theories, research methods, and seminars relevant to design research. The core curriculum also includes specialized training in instruction and pedagogy; this is requisite for graduate teaching assistant duties (often a source of doctoral funding), and useful for students who wish to pursue academic careers. The core curriculum also includes an independent study that will facilitate the production of the Qualifying Research Project.

³ Or independent study; topics may vary.

⁴ The major area of specialization provides students with an overview of the knowledgebase and seminal research in their concentration field; coursework in the major area will serve as a foundation for the preliminary exam and dissertation. Students are encouraged to take course that are offered both inside and outside the Design Studies department to develop an interdisciplinary framework for their doctoral research. Students may also benefit from courses offered through CIC (Committee on Institutional Cooperation) traveling scholar program, the academic consortium of twelve major teaching and research universities in the Midwest designed to share specialized courses and resources. Ph.D. students are expected to develop a strong foundation in research methods. Students in the DH track must take at least

one advanced methods courses in applicable areas, such as art history or material culture. Students in the EDR track are encouraged to take advanced research methods courses (e.g., advanced qualitative/quantitative, ethnography, GIS) and advanced statistics courses as their dissertation topic requires. Students in the TS track are expected to develop a strong foundation in chemistry, the fundamentals of plasma chemistry, and plasma processing. Technology and chemistry are an important part of textile science track.

⁵ All Ph.D. students select a minor area of specialization outside their major area of specialization. The minor area should be distinctive but complementary to student's major area. The UW–Madison Graduate School policy outlines two possible options regarding minor area of specialization:

- Option A: requires a minimum of 10 credits in a single disciplinary program (e.g., Art History, Landscape Architecture). Fulfillment of this option requires the approval of the minor program.
- Option B: requires a minimum of 9 credits in one or more programs forming a coherent topic, and can include course work in the program (e.g., technology-focused virtual reality). Fulfillment of this option requires the approval of the Design Studies program. The distribution of other credits will be approved by the individual student's Ph.D. committee.

VR Technology Focused Minor

The Design Studies program offers a unique minor area of specialization in Virtual Reality¹. Students in both the DH and EDR tracks may minor in this field. The minor provides a technology-focused approach for students looking to develop new Virtual Reality technologies or to utilize Virtual Reality technologies in their research. The School of Human Ecology houses a newly developed Virtual Reality system to which students undertaking this minor will have full access. Additionally, students will have the opportunity to work with other Virtual Reality and simulation environments around the UW–Madison campus. Students looking to undertake the VR technology minor should be familiar with concepts of computer programming and programming languages.

Students in the TS Track should develop expertise in both technology and chemistry. Students have the opportunity to develop a minor in the emerging field of technical textiles. If a distributed minor is desired, students must take a minimum of 6 credits in technology and 6 credits in chemistry (12 credits total).

¹ *Note: This is taken by the student as a distributed doctoral minor (Option B). The name "Virtual Reality" does not appear on the transcript or anywhere in the student record.*

Code	Title	Credits
Required during the first semester:		
DS 501	Special Topics (Topic: Design in Virtual Reality)	1-3
Electives:		
PSYCH/COMP SCI/ ED PSYCH 770	Human-Computer Interaction	3
DS 501	Special Topics (Topic: Wearable Computing)	1-3
COMP SCI 679	Computer Game Technology	3
COMP SCI 559	Computer Graphics	3
COMP SCI 777	Computer Animation	3
COMP SCI 838	Topics in Computing (Topic: Advanced Modeling and Simulation)	1-3

COMP SCI 838	Topics in Computing (Topic: Advanced Graphics)	1-3
COMP SCI 838	Topics in Computing (Topic: Visualization)	1-3

Read more about the minor here (<https://blogs.discovery.wisc.edu/kponto/dscvr>).

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

NAMED OPTION-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://sohe.wisc.edu/graduate-students/research-and-creative-scholarship/design-studies/phd/progress-to-degree>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count up to 18 credits of graduate coursework taken at other institutions or as a UW–Madison Special student (with a maximum of 9 special student credits as part of the 18). Prior coursework taken at other institutions may not be used to satisfy the minimum graduate residence credit requirement. Credits earned ten or more years prior to admission to a doctoral degree are not allowed to satisfy requirements.

UW–Madison Undergraduate

With program approval, up to 7 credits numbered 300 or above from a UW–Madison undergraduate degree are allowed to count toward degree credit; undergraduate courses must be numbered 700 or above to count toward the minimum graduate coursework requirement. No undergraduate coursework may count toward the graduate residence requirement.

UW–Madison University Special

With program approval, students are allowed to count up to 18 credits of graduate coursework taken at other institutions or as a UW–Madison Special student (with a maximum of 9 special student credits as part of the 18). Coursework must be numbered 300 or above for residence and degree credit and 700 or above to satisfy the minimum graduate coursework (50%) requirement. Credits earned ten or more years prior to admission to a doctoral degree are not allowed to satisfy requirements. Use of Special student credit may require payment of tuition difference.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course

(300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies. An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor.

To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

12 credits

TIME CONSTRAINTS

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

OTHER

n/a

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PROGRAM RESOURCES

The School of Human Ecology Graduate Program values the professional development of graduate students and provides financial awards to those who are invited to present at professional conferences/exhibits. The purpose of the support is to encourage participation in professional development, scholarly research, and/or creative endeavor and to help cover expenses not covered by other sources. Students may receive a maximum award of \$650 for travel (\$750 for international travel) to support conference participation in a single academic year.

In addition, each academic department within the School of Human Ecology may offer additional professional development grant opportunities. See the program Events Calendar (<https://sohe.wisc.edu/>)

calendar-of-events) for the most up-to-date information on professional development opportunities.

PEOPLE

Faculty:

CIVIL SOCIETY AND COMMUNITY STUDIES

Professors: Cynthia Jasper (chair), Constance Flanagan

Associate Professors: Lori Bakken, Brian Christens

Assistant Professors: Kendra Alexander, Jennifer Gaddis, Leah Horowitz, Carolina Sarmiento, Shannon Sparks

CONSUMER SCIENCE (CONSUMER BEHAVIOR & FAMILY ECONOMICS)

Professors: Nancy Wong (chair), Judith Bartfeld

Associate Professors: J. Michael Collins, Clifford Robb

Assistant Professors: Feneba Addo, Lydia Ashton, Dee Warmath

DESIGN STUDIES

Professors: Roberto Rengel (chair), Jennifer Angus, Wei Dong, Majid Sarmadi, Mark Nelson

Associate Professors: Mary Hark, Carolyn Kallenborn, Jung-hye Shin

Assistant Professors: Marianne Fairbanks, Marina Moskowitz, Kevin Ponto, Kristin Thorleifsdottir

HUMAN DEVELOPMENT AND FAMILY STUDIES

Professors: Janean Dilworth-Bart (chair), Charles Raison, Julie Poehlmann-Tynan, Linda Roberts, Stephen Small

Associate Professors: Larissa Duncan, Sarah Halpern-Meekin, Sigan Hartley, Heather Kirkorian, Robert Nix, Lauren Papp

Assistant Professors: Kristin Litzelman, Margaret Kerr

HUMAN ECOLOGY: HUMAN DEVELOPMENT AND FAMILY STUDIES, PH.D.

This is a named option within the Human Ecology, Ph.D. (p. 750)

Human Development and Family Studies offers an interdisciplinary approach to the study of families and individuals across the lifespan with an emphasis on research and its application to practice, programs, and policy. Graduate students in this option may earn the Human Ecology: Human Development & Family Studies, M.S. (p. 741) along the way to the Ph.D.

The HDFS graduate program option is served by 13 full-time faculty members plus affiliated faculty members. Faculty members are professionally active with strong records of national and international scholarship. The faculty bring the perspectives of many different disciplines to their work, including psychology, human development and family student, sociology, education, and psychiatry. Faculty members conduct basic research to understand families and their members and

applied research and outreach to promote positive outcomes in human development and family life.

Faculty and graduate students in HDFS collaborate on research and outreach-engagement projects in a wide variety of substantive areas focusing on the well-being of individuals, couples, and families. Current areas of scholarly activity focus on early childhood, couple relationships, contemplative practices, mind-body well-being, parenting, family caregiving, and vulnerable populations (e.g., incarcerated parents, children with autism, and historically under-represented groups)

Reflecting the multidisciplinary orientation of the program, faculty and students employ a wide array of methods in their work. Faculty possess expertise in areas as diverse as multilevel, longitudinal, nonlinear, and dyadic modeling; physiological measurement; program evaluation; observational methods; experimental methods; survey methodology; and community-based research. The program explicitly values both qualitative and quantitative approaches to inquiry.

Central to the mission of the program is the creation, dissemination, and application of scientific knowledge to address real world problems and issues. Applied work of current faculty and students includes public policy education, community building, outreach education, and prevention programs. This applied work is conducted throughout the state.

There is a demand for professionals trained in research, teaching, and outreach in the areas of human development and family studies in higher education, government, and human and family service programs. Regardless of whether HDFS graduates pursue careers in academic or applied settings, they are prepared for a life of scholarship and service.

ADMISSIONS

Applications are accepted once per year for fall admission and are due by December 1 of the preceding year. To be considered for admission to the Human Development and Family Studies (HDFS) Ph.D. option in Human Ecology, the department requires the following materials:

- Online application (<https://grad.wisc.edu/apply>) indicating “Human Ecology PHD–Human Dev & Family Studies” as your program selection
- \$75 application fee
- Curriculum vitae/resume
- Unofficial transcripts or academic records from each institution attended (official transcripts will be required for students who receive an admission offer)
- Official Graduate Record Exam scores (GRE Institution code #1846)
- International students only:
 - Official Test of English as a Foreign Language (TOEFL) or Melab scores
 - International students who hold degrees from U.S. institutions do not need to submit language test scores
- Three letters of recommendation (submitted electronically through your Graduate School application)
- Uploaded Statement of Purpose/Reasons for Graduate Study
- Upload a writing sample
 - Examples of writing samples include prior scholarly work such as term papers, theses, or published articles. All writing samples must be written in English and uploaded to the online application system as a PDF.

- Complete the Supplemental Application portion of the online application

Additional information is available on the program website (<https://sohe.wisc.edu/graduate-students/research-and-creative-scholarship/hdfs-graduate-program>).

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Funding opportunities for Human Ecology graduate students are available and made possible, in large part, by generous donations to SoHE. Every year, these funds are used to fund teaching or project assistantships, award academic excellence scholarships, and provide students doing their masters or doctoral research or final MFA project with conference travel scholarships and graduate research scholarships. See the School of Human Ecology Enrollment Policy on Funding Eligibility (<https://sohe.wisc.edu/graduate-students/academic-policies-forms-deadlines/full-time-enrollment-policy-for-funding-eligibility>) and view current funding opportunities on our program website (<https://sohe.wisc.edu/graduate-students/funding>) for more information.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 51 credits

Minimum Residence Credit Requirement 32 credits

Minimum Graduate Coursework Requirement Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Doctoral students are required to take a comprehensive preliminary/oral examination after they have cleared their record of all Incomplete and Progress grades (other than research and thesis). Deposit of the doctoral dissertation in the Graduate School is required.

Language Requirements Contact the program for information on any language requirements.

Doctoral Minor/Breadth Requirements All doctoral students are required to complete a minor.

REQUIRED COURSES

Code	Title	Credits
Introductory Courses		
CSCS 801	Special Topics in Civil Society and Community Research	3
INTER-HE 801	Special Topics in Human Ecology (Human Ecology Theories & Perspectives)	6
Basic Theory Courses		

HDFS/	Theory and Issues in Human	
ED PSYCH 725	Development	
HDFS 865	Family Theory I (Survey)	
Content Courses		9
<i>A minimum of 9 HDFS credits in content courses (not to include methods or statistics courses) at 700 level or above. Independent Study credits do not count towards content course credits</i>		
Research Methods and Design		6
INTER-HE 793	Research Methods	
<i>Choose an advanced research methods course (minimum 3 credits) in consultation with your advisor</i>		
Statistics		3
<i>As part of the Ph.D. program, students must also complete a minimum of one 3-credit, advanced level statistics course. Please consult with your advisor to identify a statistics course that fits with your area of study</i>		
Research & Thesis		9
HDFS 990	Research and Thesis	
Graduate Electives		6
Minor Area Requirement		9
Total Credits		51

coursework may count toward the graduate residence requirement.

UW–Madison University Special

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PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

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To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

12 credits

TIME CONSTRAINTS

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

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OTHER

n/a

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PROFESSIONAL DEVELOPMENT

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Assistant Professors: Kristin Litzelman, Margaret Kerr

INDUSTRIAL AND SYSTEMS ENGINEERING

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Industrial Engineering, Doctoral Minor (p. 769)
- Industrial Engineering, M.S. (p. 771)
- Industrial Engineering, Ph.D. (p. 786)
- Patient Safety, Graduate/Professional Certificate (p. 793)

PEOPLE

Faculty Directory

FACULTY PROFESSORS

- Oguzhan Alagoz (https://directory.engr.wisc.edu/ie/Faculty/Alagoz_Oguzhan)
- Vicki Bier (https://directory.engr.wisc.edu/ie/Faculty/Bier_Vicki)
- Pascale Carayon (https://directory.engr.wisc.edu/ie/Faculty/Carayon_Pascale)
- Ananth Krishnamurthy (https://directory.engr.wisc.edu/ie/Faculty/Krishnamurthy_Ananth)
- John Lee (https://directory.engr.wisc.edu/ie/Faculty/Lee_John)
- Jingshan Li (https://directory.engr.wisc.edu/ie/Faculty/Li_Jingshan)
- Jeff Linderoth (https://directory.engr.wisc.edu/ie/Faculty/Linderoth_Jeffrey) (Department Chair)
- Robert Radwin (https://directory.engr.wisc.edu/ie/Faculty/Radwin_Robert)
- Leyuan Shi (https://directory.engr.wisc.edu/ie/Faculty/Shi_Leyuan)
- Raj Veeramani (https://directory.engr.wisc.edu/ie/Faculty/Veeramani_Raj)
- Shiyu Zhou (https://directory.engr.wisc.edu/ie/Faculty/Zhou_Shiyu)

ASSOCIATE PROFESSORS

- Laura Albert (https://directory.engr.wisc.edu/ie/Faculty/Albert-mclay_Laura)
- Jim Luedtke (https://directory.engr.wisc.edu/ie/Faculty/Luedtke_James)
- Doug Wiegmann (https://directory.engr.wisc.edu/ie/Faculty/Wiegmann_Douglas)

ASSISTANT PROFESSORS

- Alberto Del Pia (https://directory.engr.wisc.edu/ie/Faculty/Del-pia_Alberto)
- Kaibo Liu (https://directory.engr.wisc.edu/ie/Faculty/Liu_Kaibo)
- Carla Michini (https://directory.engr.wisc.edu/ie/Faculty/Michini_Carla)
- Xin Wang (https://directory.engr.wisc.edu/ie/Faculty/Wang_Xin)
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- Rajan Suri (https://directory.engr.wisc.edu/ie/Faculty/Suri_Rajan)
- Arne Thesen (https://directory.engr.wisc.edu/ie/Faculty/Thesen_Arne)
- Gregg Vanderheiden (https://directory.engr.wisc.edu/ie/Faculty/Vanderheiden_Gregg)
- David R. Zimmerman (https://directory.engr.wisc.edu/ie/Faculty/Zimmerman_David)

INDUSTRIAL ENGINEERING, DOCTORAL MINOR

Industrial and systems engineering is an engineering discipline focusing on the design, analysis, improvement and implementation of complex systems that include humans, materials, equipment and other resources. The learning outcome of the doctoral minor is to gain general proficiency and distinctive attainment in one or more concentration areas in industrial and systems engineering, including: decision science and operations research, manufacturing production systems, health systems engineering, and human factors and ergonomics.

ADMISSIONS

For admissions, please contact the I Sy E coordinator in the Academic Affairs Cluster (<https://www.engr.wisc.edu/academics/student-services/academic-advising/graduate-engineering-students>).

REQUIREMENTS

A Ph.D. candidate from another department taking an Option A doctoral minor in industrial engineering must complete a minimum of 9 credits of I SY E (http://guide.wisc.edu/courses/i_sy_e) courses numbered 300 or above. A minimum GPA of 3.20 is required for this set of courses. A course with a grade of C or lower cannot be used to satisfy the minor requirement. Students may transfer up to 3 credits from another university to satisfy the minor requirement, subject to the approval of the Academic Affairs Cluster.

PEOPLE

Faculty Directory

FACULTY PROFESSORS

- Oguzhan Alagoz (https://directory.engr.wisc.edu/ie/Faculty/Alagoz_Oguzhan)
- Vicki Bier (https://directory.engr.wisc.edu/ie/Faculty/Bier_Vicki)
- Pascale Carayon (https://directory.engr.wisc.edu/ie/Faculty/Carayon_Pascale)
- Ananth Krishnamurthy (https://directory.engr.wisc.edu/ie/Faculty/Krishnamurthy_Ananth)
- John Lee (https://directory.engr.wisc.edu/ie/Faculty/Lee_John)
- Jingshan Li (https://directory.engr.wisc.edu/ie/Faculty/Li_Jingshan)
- Jeff Linderoth (https://directory.engr.wisc.edu/ie/Faculty/Linderoth_Jeffrey) (Department Chair)
- Robert Radwin (https://directory.engr.wisc.edu/ie/Faculty/Radwin_Robert)
- Leyuan Shi (https://directory.engr.wisc.edu/ie/Faculty/Shi_Leyuan)
- Raj Veeramani (https://directory.engr.wisc.edu/ie/Faculty/Veeramani_Raj)
- Shiyu Zhou (https://directory.engr.wisc.edu/ie/Faculty/Zhou_Shiyu)

ASSOCIATE PROFESSORS

- Laura Albert (https://directory.engr.wisc.edu/ie/Faculty/Albert-mclay_Laura)
- Jim Luedtke (https://directory.engr.wisc.edu/ie/Faculty/Luedtke_James)
- Doug Wiegmann (https://directory.engr.wisc.edu/ie/Faculty/Wiegmann_Douglas)

ASSISTANT PROFESSORS

- Alberto Del Pia (https://directory.engr.wisc.edu/ie/Faculty/Del-pia_Alberto)
- Kaibo Liu (https://directory.engr.wisc.edu/ie/Faculty/Liu_Kaibo)
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INDUSTRIAL ENGINEERING, M.S.

The Department of Industrial and Systems Engineering offers opportunities for graduate study leading to the master of science and the doctor of philosophy degrees in industrial and systems engineering.

The Department also offers three distinct master of science programs. The two named options programs, Human Factors and Systems Engineering M.S. (p. 777) and Systems Engineering and Analytics M.S. (p. 781), are accelerated programs that can be completed in one full year of study, and are designed for students wishing to pursue a career in industry or government. The traditional master of science program is designed for students wishing to conduct research during their program.

The department also offers a graduate/professional certificate in patient safety. This certificate is an interdisciplinary effort between the Department of Industrial and Systems Engineering, School of Nursing, School of Pharmacy, Department of Medical Physics, and Department of Population Health Sciences.

ADMISSIONS

The UW–Madison graduate program in industrial and systems engineering offers students extraordinary opportunities to pursue a course of study that is customized to the student’s interests and ambitions, under the auspices of the foremost experts in their field, in one of the top-ranked industrial and systems engineering departments.

The flexible graduate curricula enables students to tailor their degree program to suit their particular needs and career objectives. Concentration areas in industrial and systems engineering includes: Decision Sciences and Operations Research, Health Systems Engineering, Human Factors and Ergonomics, Manufacturing, and Product Systems and Quality Engineering. Students also have opportunities to take graduate courses in any other departments at UW–Madison, which has a comprehensive set of top-ranked graduate and professional programs.

APPLICATION DEADLINES:

- **Fall 2018:** January 1*

*Applications for this program are for a fall-semester start. Spring/summer applications are no longer accepted except for I SY E seniors.

- **Reentry applicants:** July 15 (fall); December 1 (spring); must consult with I SY E faculty advisor prior to reapplying
- Additional reentry information (<https://grad.wisc.edu/admissions/previouslyenrolled>)

APPLICATION REQUIREMENTS

Application deadlines are strictly enforced and ALL application materials including transcripts, GRE and TOFL scores MUST be included and submitted by the application deadline.

**Please note our office does not provide feedback to applications as to their potential for admission—please review both the I SY E department and Graduate School requirements for admission, and if you feel you*

meet the necessary criteria for applying, please do so.

1. Applicants must first meet all of the requirements of the Graduate School (<https://grad.wisc.edu/acadpolicy/?policy=enrollmentrequirements>).
2. Applicants must also meet department specific requirements as outlined below:
 - Bachelor’s degree or equivalent
 - Mathematical Statistics course (for example STAT 312)
 - Computer Programming course
 - Three introductory courses in Industrial Engineering, such as: I SY E 313, I SY E 315, I SY E 320, I SY E 323, I SY E/PSYCH 349, I SY E 415, I SY E 417
 - The Graduate Record Examination (GRE) is required for all masters programs in I SY E. Please visit here (<https://www.ets.org/gre>) for more information on taking the GRE exam. **Please note:** Applicants should plan to take their exam by **December 1** to allow scores to be sent and processed.

Note: Depending on applicant background, applicants may be deficient in up to two prerequisite courses.

APPLICATION STEPS

1. **Fill out an online application** (<https://apply.grad.wisc.edu/Account/Login?ReturnUrl=%2f>) through the Graduate School website and pay the application fee. (<https://grad.wisc.edu/admissions/faq>)
2. **List three recommenders and their contact information as part of the online application.** An email will be sent to the recommender, asking that they submit their letter online using the Graduate School’s recommendation form. Applicants can log back into their online application to re-send the email request if the recommender loses the email. Letters of recommendation must be submitted electronically.
3. Submit a **Statement of Purpose** (<https://grad.wisc.edu/prospective/prepare/statement>) with your online application.
4. **TOEFL Exam Information: Ask ETS** (<https://www.ets.org>) **to submit your GRE and/or TOEFL scores to the UW–Madison Graduate School (Institution Number 1846).** If you have your scores sent to UW–Madison, they will be available online to all departments to which you have applied. The institution code, therefore, is the only number needed. For more information please visit the **Graduate School Requirements** (<https://grad.wisc.edu/admissions/requirements>) page. Please note: Exam information must be valid at start date of the semester that you are applying for (nonexpired).
5. **GRE Exam Information:** (<https://www.ets.org/gre>) The IE graduate program does require the GRE exam be taken by prospective students as part of the application but **note there are no specific scoring guidelines for the exam** as the GRE is only one part of consideration for admission into the program. Please note: Exam information must be valid at start date of the semester that you are applying for (nonexpired).
6. **Electronically submit one copy of your official transcript with your application.** Unofficial copies of transcripts will be accepted for review but official copies are required for admitted students.

#Submit only the documents requested.

NOTE: PLEASE DO NOT SEND DOCUMENTS TO THE GRADUATE SCHOOL. ALL DOCUMENTS SHOULD BE UPLOADED WITH YOUR APPLICATION.

QUESTIONS?

Check out the Admissions FAQ or contact us at iegradadmission@engr.wisc.edu.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

FINANCIAL ASSISTANCE

Please note that most funding is available for Ph.D. students and there is limited resources for M.S. students. International students must prove one year of funding before requesting assistance.

If you choose to attend UW–Madison and plan to pursue funding on your own, the following sites could be very helpful:

- Graduate School Funding Resources (<https://grad.wisc.edu/studentfunding/prospective>)
- Graduate School Costs and Funding (<https://grad.wisc.edu/studentfunding/currentstudents>)
- Tuition & Fees (https://registrar.wisc.edu/tuition_&_fees.htm)

TO APPLY FOR TA OR GRADER POSITION

- **Teaching Assistant** (https://docs.google.com/forms/d/e/1FAIpQLSeT-Q1ISnemo4RBjJMNqgrohsFHpT7DoWivVK8_ot-iYce16Q/viewform?usp=sf_link)
- **Grader** (https://docs.google.com/a/wisc.edu/forms/d/e/1FAIpQLSeh-wQWWIXqp_y_GF_utRk9Tv-8Lmy9-0LKU83xWRcsjJiAGA/viewform)

Application Process:

Teaching assistant and grader positions are appointed each semester. New TAs must submit an application each semester in order to be considered. If you currently are a TA in Industrial and Systems Engineering, you do not need to complete an application each semester.

The number of positions is limited, and the application process is highly competitive. Priority is given to those with current positions who are in good standing and would like to continue teaching. Only after these positions are filled do we look at other applicants. The number of new positions available each semester is generally low, especially in the

spring. While this should not deter you from applying, please keep it in mind when planning for the semester.

The department will consider graduate students from other departments only when there are no qualified applicants from the Department of Industrial and Systems Engineering.

Expected timing for appointments:

Appointments for teaching assistants are generally made in August for the fall semester and in early December for the spring semester. Grader appointments are appointed along a similar timeline, but often a few weeks later.

Once hired:

Students hired into a TA position are required to attend the New Educator Orientation (NAO) training in late August. For more details, please see this website (<http://ceete.engr.wisc.edu/ta-training>).

Speaking requirements for international students:

All international students applying for teaching assistant positions must meet the UW–Madison Graduate School's requirement (<https://www.google.com/url?q=https%3A%2F%2Fkb.wisc.edu%2Fpage.php%3Fid%3D25268&sa=D&sntz=1&usg=AFQjCNGc8qLuqvUy99uLQF5zTnKMZmhBvA>) for spoken English BEFORE they can be considered as a TA. This requirement can be fulfilled in two ways:

1. Pass the SPEAK (<http://www.google.com/url?q=http%3A%2F%2Fwww.english.wisc.edu%2Fesl%2Fspeak.htm&sa=D&sntz=1&usg=AFQjCNE8zovH5WAVIddfwe3j377k5J0ePQ>) you can register for the SPEAK test through Aaron Webster in Room 3180 ME, aaron.webster@wisc.edu.
2. Receive a 26 or higher on the speaking portion of the TOEFL test (or equivalent). Provide a copy of your score to Aaron Webster in Room 3180 ME, aaron.webster@wisc.edu

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-

campus component that is often designed to accommodate working schedules.

Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements Grades of C and D received by a candidate in any graduate course will not be counted as credit toward the degree. These grades will be counted in the graduate GPA.

Assessments and Examinations None.

Language Requirements No language requirements.

REQUIRED COURSES

Students choose one of the below research areas. The program recommends working with your faculty advisors to answer any questions and to form a plan of study.

Research Area Brochures:

- Decision Sciences and Operations Research (<https://www.engr.wisc.edu/app/uploads/2016/02/DSOR-web-2.pdf>)
- Health Systems Engineering (<https://www.engr.wisc.edu/app/uploads/2016/02/HSE-web-2.pdf>)
- Human Factors and Ergonomics (<https://www.engr.wisc.edu/app/uploads/2016/02/HFE-Web-2.pdf>)
- Manufacturing and Production Systems (<https://www.engr.wisc.edu/app/uploads/2016/02/MPS-Web-2.pdf>)
- Quality Engineering (<https://www.engr.wisc.edu/app/uploads/2016/02/QEweb-2.pdf>)

Decision Science/Operations Research Area ¹

Code	Title	Credits
I SY E 412	Fundamentals of Industrial Data Analytics	3

I SY E 415	Introduction to Manufacturing Systems, Design and Analysis	3
I SY E/COMP SCI/MATH 425	Introduction to Combinatorial Optimization	3
I SY E/M E 512	Inspection, Quality Control and Reliability	3
I SY E/M E 513	Analysis of Capital Investments	3
I SY E 515	Engineering Management of Continuous Process Improvement	3
I SY E 516	Introduction to Decision Analysis	3
I SY E 517	Decision Making in Health Care	3
I SY E/COMP SCI/E C E 524	Introduction to Optimization	3
I SY E/COMP SCI/MATH/STAT 525	Linear Programming Methods	3
I SY E 575	Introduction to Quality Engineering	3
I SY E 612	Information Sensing and Analysis for Manufacturing Processes	3
I SY E 620	Simulation Modeling and Analysis	3
I SY E 624	Stochastic Modeling Techniques	3
I SY E/MATH/OTM/STAT 632	Introduction to Stochastic Processes	3
I SY E/MATH/OTM 633	Queuing Theory and Stochastic Modeling	3
I SY E/M E 641	Design and Analysis of Manufacturing Systems	3
I SY E/M E 643	Performance Analysis of Manufacturing Systems	3
I SY E 645	Engineering Models for Supply Chains	3
I SY E/INFO SYS/OTM 671	E-Business: Technologies, Strategies and Applications	3
I SY E/COMP SCI 719	Stochastic Programming	3
I SY E/COMP SCI 723	Dynamic Programming and Associated Topics	3
I SY E/COMP SCI/MATH/STAT 726	Nonlinear Optimization I	3
I SY E/COMP SCI 727	Convex Analysis	3
I SY E/COMP SCI/MATH 728	Integer Optimization	3
I SY E/COMP SCI/MATH 730	Nonlinear Optimization II	3
STAT/M E 424	Statistical Experimental Design	3

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Health Systems Engineering Research Area ¹

Code	Title	Credits
I SY E/M E 513	Analysis of Capital Investments	3
I SY E 515	Engineering Management of Continuous Process Improvement	3
I SY E 516	Introduction to Decision Analysis	3

I SY E 517	Decision Making in Health Care	3
I SY E 555	Human Performance and Accident Causation ²	3
I SY E/ MED PHYS 559	Patient Safety and Error Reduction in Healthcare	2
I SY E 575	Introduction to Quality Engineering	3
I SY E 601	Special Topics in Industrial Engineering (Topics vary by semester)	1-3
I SY E/ PHARMACY 608	Safety and Quality in the Medication Use System	3
I SY E 615	Production Systems Control	3
I SY E/B M I 617	Health Information Systems	3
I SY E 620	Simulation Modeling and Analysis	3
I SY E 624	Stochastic Modeling Techniques	3
I SY E/MATH/ OTM 633	Queuing Theory and Stochastic Modeling	3
I SY E/M E 643	Performance Analysis of Manufacturing Systems	3
I SY E/PSYCH 652	Sociotechnical Systems	3
I SY E/PSYCH 653	Organization and Job Design	3
I SY E/B M E 662	Design and Human Disability and Aging	3
I SY E/INFO SYS/ OTM 671	E-Business: Technologies, Strategies and Applications	3
I SY E/ POP HLTH 703	Quality of Health Care: Evaluation and Assurance	1-3
I SY E/ COMP SCI 723	Dynamic Programming and Associated Topics	3
I SY E/M H R 729	Behavioral Analysis of Management Decision Making	3
I SY E 816	Special Topics in Systems Design	1-3
I SY E/PSYCH 854	Special Topics in Organization Design	1-3
ED PSYCH 711	Current Topics in Educational Psychology	1-3
ED PSYCH 862	Multivariate Analysis	3
PSYCH 610	Statistical Analysis of Psychological Experiments	3
PSYCH 710	Design and Analysis of Psychological Experiments	3
STAT 333	Applied Regression Analysis	3
STAT/M E 424	Statistical Experimental Design	3
STAT/F&W ECOL/ HORT 571	Statistical Methods for Bioscience I	4
STAT/B M I 641	Statistical Methods for Clinical Trials	3
STAT 701	Applied Time Series Analysis, Forecasting and Control I	3
NURSING 761	Health Program Planning, Evaluation, and Quality Improvement	3
POP HLTH/SOC 797	Introduction to Epidemiology	3
POP HLTH/ I SY E 875	Cost Effectiveness Analysis in Health and Healthcare	3
POP HLTH 876	Measuring Health Outcomes	3

OTM 753	Healthcare Operations Management	3
B M I/COMP SCI 576	Introduction to Bioinformatics	3
B M I 773	Clinical Research Informatics	3
B M I/COMP SCI 776	Advanced Bioinformatics	3

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

² Or I SY E/MED PHYS 559 Patient Safety and Error Reduction in Healthcare, I SY E/PHARMACY 608 Safety and Quality in the Medication Use System or I SY E/POP HLTH 703 Quality of Health Care: Evaluation and Assurance

Human Factors and Ergonomics Research Area¹

Code	Title	Credits
I SY E/PSYCH 549	Human Factors Engineering	3
I SY E 552	Human Factors Engineering Design and Evaluation	3
I SY E 555	Human Performance and Accident Causation	3
I SY E 556	Occupational Safety and Health Engineering	3
I SY E/ MED PHYS 559	Patient Safety and Error Reduction in Healthcare	2
I SY E/B M E 564	Occupational Ergonomics and Biomechanics	3
I SY E 610	Design of Program Evaluation Systems	3
I SY E/PSYCH 652	Sociotechnical Systems	3
I SY E/PSYCH 653	Organization and Job Design	3
I SY E/B M E 662	Design and Human Disability and Aging	3
I SY E 699	Advanced Independent Study	1-5
I SY E/PSYCH 854	Special Topics in Organization Design	1-3
I SY E/PSYCH 859	Special Topics in Human Factors Engineering	1-3
I SY E 961	Graduate Seminar in Industrial Engineering	1-3
CIV ENGR 679	Special Topics in Transportation and City Planning	3

Various courses count as "Tools and Methods." The HFE faculty group updates the list of "Tools and Methods" courses and advisors decide which set of courses are appropriate for each student. The following are categories of "Tools and Methods": Research Methods, Statistics, Qualitative Research, Biomechanics Methods, and Psychology. Students can work with their faculty advisor for non-I SY E course work.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Manufacturing and Production Systems Research Area¹

Code	Title	Credits
I SY E 415	Introduction to Manufacturing Systems, Design and Analysis	3

ISY E/COMP SCI/ MATH 425	Introduction to Combinatorial Optimization	3
ISY E/M E 510	Facilities Planning	3
ISY E/M E 512	Inspection, Quality Control and Reliability	3
ISY E 515	Engineering Management of Continuous Process Improvement	3
ISY E 516	Introduction to Decision Analysis	3
ISY E/COMP SCI/ E C E 524	Introduction to Optimization	3
ISY E/COMP SCI/ MATH/STAT 525	Linear Programming Methods	3
ISY E 575	Introduction to Quality Engineering	3
ISY E 605	Computer Integrated Manufacturing	3
ISY E 612	Information Sensing and Analysis for Manufacturing Processes	3
ISY E 615	Production Systems Control	3
ISY E 620	Simulation Modeling and Analysis	3
ISY E 624	Stochastic Modeling Techniques	3
ISY E/MATH/OTM/ STAT 632	Introduction to Stochastic Processes	3
ISY E/M E 641	Design and Analysis of Manufacturing Systems	3
ISY E/M E 643	Performance Analysis of Manufacturing Systems	3
ISY E 645	Engineering Models for Supply Chains	3
ISY E/INFO SYS/ OTM 671	E-Business: Technologies, Strategies and Applications	3
STAT/M E 424	Statistical Experimental Design	3

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Quality Engineering Research Area ¹

Code	Title	Credits
ISY E 412	Fundamentals of Industrial Data Analytics	3
ISY E 417	Health Systems Engineering	3
ISY E/M E 512	Inspection, Quality Control and Reliability	3
ISY E/M E 513	Analysis of Capital Investments	3
ISY E 515	Engineering Management of Continuous Process Improvement	3
ISY E 520	Quality Assurance Systems	3
ISY E 575	Introduction to Quality Engineering	3
ISY E 601	Special Topics in Industrial Engineering	1-3
ISY E 610	Design of Program Evaluation Systems	3
ISY E 612	Information Sensing and Analysis for Manufacturing Processes	3
ISY E 620	Simulation Modeling and Analysis	3

ISY E/M E 641	Design and Analysis of Manufacturing Systems	3
ISY E/PSYCH 652	Sociotechnical Systems	3
ISY E/PSYCH 653	Organization and Job Design	3
ISY E/PSYCH 854	Special Topics in Organization Design	1-3
M H R 700	Organizational Behavior	3
OTM 758	Managing Technological and Organizational Change	3
OTM 770	Sustainable Approaches to System Improvement	4
STAT 333	Applied Regression Analysis	3
STAT 349	Introduction to Time Series	3
STAT 411	An Introduction to Sample Survey Theory and Methods	3
STAT 421	Applied Categorical Data Analysis	3
STAT 701	Applied Time Series Analysis, Forecasting and Control I	3
STAT/MATH 803	Experimental Design I	3
STAT 849	Theory and Application of Regression and Analysis of Variance I	3
ED PSYCH 862	Multivariate Analysis	3

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

NAMED OPTIONS (SUB-MAJORS)

A named option is a formally documented sub-major within an academic major program. Named options appear on the transcript with degree conferral.

- Industrial Engineering: Human Factors and Health Systems Engineering, M.S. (p. 777)
- Industrial Engineering: Systems Engineering and Analytics, M.S. (p. 781)

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (https://www.engr.wisc.edu/app/uploads/2016/02/ISYE_New_Grad_Handbook-4.pdf) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

Not allowed for graduate residence credit requirement but allowed for graduate degree credit requirement and graduate coursework (50%) requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

Not allowed for graduate residence credit requirement for master's thesis option or the Ph.D. track but allowed up to 6 credits numbered 300 level or above toward the graduate degree credit requirement for master's course option tracks but not toward the 50% graduate coursework except for 700 level or above courses. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison University Special

Allowed up to 15 credits numbered 300 or above toward graduate residence credit requirement and graduate degree credit requirement. If the courses were numbered 700 or above they may count toward the minimum graduate coursework (50%) requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Per Graduate School policy, every graduate student MUST have a faculty advisor. A faculty advisor provides the graduate student with academic guidance regarding their course selection and research oversight in their thesis or project. Graduate students should always seek advice from their advisor and other faculty in their interest area prior to enrolling for courses.

When graduate students are admitted to the I Sy E department, their advisor is either a) the faculty person providing financial support, b) the faculty who recommended their admission or c) a faculty is assigned to them by the student services coordinator. Advisors are assigned according to a student's chosen Focus Area.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

n/a

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PROGRAM RESOURCES

THE INDIVIDUAL DEVELOPMENT PLAN ([HTTPS://GRAD.WISC.EDU/PD/IDP](https://grad.wisc.edu/pd/idp))

An Individual Development Plan helps with self-assessment, planning, and communication:

- An IDP can help you communicate your professional development and career planning needs and intentions to others including your mentor, which can lead to helpful advice and resources.
- You can use the IDP to make sure you and your mentor's expectations are clearly outlined and in agreement so that there are no big surprises, particularly at the end of your training.
- The current job market is challenging and research has shown that individuals who perform structured career planning achieve greater career success and satisfaction.

The onus to engage in the IDP process is on you – although your mentor, PI, or others may encourage and support you in doing so. The IDP itself remains private to you, and you choose which parts to share with which mentors. Through the IDP process, you may decide to identify various mentors to whom you can go for expertise and advice.

ENGINEERING CAREER SERVICES ([HTTPS://ECS.WISC.EDU](https://ecs.wisc.edu))

Julie Rae, Assistant Director for Graduate Student Career Services

GRADUATE students in all Engineering programs

- Resumes & Cover Letters <https://ecs.wisc.edu/students/resumes-and-cover-letters/>
- Job Search Strategies
- Job Offers & Negotiation <https://ecs.wisc.edu/students/offers-and-negotiation/>
- CPT for Graduate Students <https://ecs.wisc.edu/students/co-op-and-internship/>
- Student appointments: Schedule Here (<http://go.wisc.edu/ecs-grad-appt>)

Employer Recruitment List for Industrial Engineering Students: <https://ecs.wiscweb.wisc.edu/wp-content/uploads/sites/86/2017/03/IE-Employer-Recruitment-List.pdf>.

UW WRITING CENTER ([HTTP://WRITING.WISC.EDU](http://writing.wisc.edu))

Location: 6171 Helen C. White Hall

Tel: (608) 263-1992

The UW Writing Center provides free of charge face-to-face and online consultations that focus on a number of different writing scenarios (i.e.

drafts of course papers, resumes, reports, application essays, cover letters, theses, etc). Writing Center instructors will not edit or proofread papers. Instead, their goal is to teach students to edit and proofread on their own in order to become a better, more confident writer.

LEARNING OUTCOMES

1. Articulates, critiques, or elaborates the theories, research methods, and approaches to inquiry or schools of practice in industrial and systems engineering including areas such as decision science and operations research, quality engineering, manufacturing and health systems, and/or human factors.
2. Identifies sources and assembles evidence pertaining to questions or challenges in industrial and systems engineering.
3. Demonstrates understanding of the industrial and systems engineering field of study in a historical, social, or global context.
4. Selects and/or utilizes the most appropriate industrial and systems engineering methodologies and practices.
5. Evaluates or synthesizes information pertaining to questions or challenges in industrial and systems engineering.
6. Communicates clearly in ways appropriate to industrial and systems engineering.
7. Recognizes and applies principles of ethical and professional conduct.

INDUSTRIAL ENGINEERING: HUMAN FACTORS AND HEALTH SYSTEMS ENGINEERING, M.S.

This is a named option within the Industrial and Systems Engineering M.S. (p. 771)

By examining, designing, testing and evaluating products, environments and how people interact in it, Human Factors and Health Systems Engineering (<https://www.engr.wisc.edu/app/uploads/2017/02/HFHSE-web-1.pdf>) professionals can create productive, safe and satisfying environments for humans, and apply industrial and systems engineering tools and approaches to specific health care problems.

IS THIS PROGRAM RIGHT FOR YOU?

The demand for engineers who can combine a concern for the human component with traditional engineering principles is great. The Human Factors and Health Systems Engineering program provides students content from physical ergonomics, cognitive ergonomics, macroergonomics and broad issues in health care, including long-term care, prevention, quality improvement, health care financing, and system evaluation.

This program considers human reliability, psychomotor capabilities and human characteristics in equipment. As an important aspect of equipment design is human-computer interaction. Engineers are concerned with the complex physical relationships between people, machines, job demands and work methods, design, work quality and assessment of skill. Also important are organizational issues such as management approaches, job design, participative problem solving,

psychological stress, job satisfaction, performance effectiveness, product/service quality, and quality of work life.

Effective model building requires strong systems analysis skills. While skill in manipulating statistical and mathematical models is essential to an industrial engineer's success, the health systems engineer must also be able to initiate resolutions to strategic problems using knowledge of how organizational decisions are made.

WHAT YOU LEARN

- Articulates, critiques, or elaborates the theories, research methods, and approaches to inquiry or schools of practice in industrial and systems engineering including areas such as decision science and operations research, quality engineering, manufacturing and health systems, and/or human factors.
- Identifies sources and assembles evidence pertaining to questions or challenges in industrial and systems engineering.
- Selects and/or utilizes the most appropriate industrial and systems engineering methodologies and practices.
- Evaluates or synthesizes information pertaining to questions or challenges in industrial and systems engineering.
- Communicates clearly in ways appropriate to industrial and systems engineering.

If questions, please contact COE Grad Admissions at iegradadmission@engr.wisc.edu; Subject Line: IE Grad Admissions and I Sy E Seniors please contact Pam Peterson, prpeterson@wisc.edu, with any questions. *Please see admission requirements under the Apply Now tab below.*

ADMISSIONS

APPLICATION DEADLINES

- **Fall 2018***: January 1 (*Non-UW IE students can only apply for fall semester).
- **Spring Admission**: October 1 (ONLY UW–Madison IE seniors are eligible for spring admission).

ADMISSION

Applicants must first meet all of the requirements of the Graduate School (<https://grad.wisc.edu/admissions/requirements>).

- Applicants must also meet department specific requirements as outlined below:
 - B.S. degree in industrial engineering or related area or equivalent
 - Non-native English speakers must have a Test of English as a Foreign Language (TOEFL) score of 580 (written), 243 (computer-based test), or 92 (Internet version).
 - The Graduate Record Examination (GRE) is *required for all masters programs in I Sy E. Information on taking the GRE exam can be found here (<https://www.ets.org/gre>). Please note: Applicants should plan to take their exam by December 1 to allow scores to be sent and processed.

**ISyE undergrads and applicants with prior institutional approval are waived from the GRE requirement.*

HOW TO APPLY:

1. **Fill out an online application** (<https://apply.grad.wisc.edu/Account/Login?ReturnUrl=%2f>) through the Graduate School website and pay the application fee (<https://grad.wisc.edu/admissions/faq>).
2. **Include three recommendation letters and the recommenders' contact information as part of the online application***. An email will be sent to the recommender, asking that they submit their letter online using the Graduate School's recommendation form. Applicants can log back into their online application to resend the email request if the recommender loses the email. Letters of recommendation must be submitted electronically.
3. **Submit a Statement of Purpose** (<https://grad.wisc.edu/prospective/prepare/statement>) **with your online application**.
4. **GRE Exam Information** (<https://www.ets.org/gre>) (STARTING FALL 2018): The course-only option does require the GRE exam be taken by prospective students as part of the application but **note there are no specific scoring guidelines for the exam** as the GRE is only one part of consideration for admission into the program. **Please note:** Applicants should plan to take their exam by Dec. 1st to allow scores to be sent and processed.
5. **TOEFL Exam Information: Ask ETS** (<http://www.ets.org>) **to submit your TOEFL scores to the UW–Madison Graduate School (Institution Number 1846)**. If you have your scores sent to UW–Madison, they will be available online to all departments to which you have applied. The institution code, therefore, is the only number needed. For more information please visit the **Graduate School Requirements** (<https://grad.wisc.edu/admissions/requirements>) page. Please note: Exam information must be valid at start date of the semester that you are applying for (nonexpired).
6. **Electronically submit one copy of your official transcript with your application**. Unofficial copies of transcripts will be accepted for review but official copies are required for admitted students.

FOR UW STUDENTS ONLY

1. **UW IE undergrads no longer need to submit a separate paper application**—only the online application is required with a statement of purpose.
2. **Three letters of recommendation are NOT required for students completing their I Sy E bachelor's degree at UW**. Please note that the application system will still require you to list three individuals as recommenders. You are welcome to list Jim Luedtke, Pam Peterson, and Maria Zarzalejo to bypass this requirement.
3. **ISyE undergrads and applicants with prior institutional approval are waived from the GRE requirement**.
4. **UW–Madison undergraduate students applying to this program do not need to submit a UW transcript**.

#Submit only the documents requested.

Apply now (<https://grad.wisc.edu/admissions>)

NOTE: PLEASE DO NOT SEND DOCUMENTS TO THE GRADUATE SCHOOL. ALL DOCUMENTS SHOULD BE UPLOADED WITH YOUR APPLICATION.

**Application deadlines are strictly enforced and ALL application materials including transcripts, letters and TOFL scores MUST be included and submitted by the application deadline. Please note our office does not provide feedback to applicants as to their potential for admission – please review*

both the I Sy E department and Graduate School requirements for admission and if you feel you meet the necessary criteria for applying, please do so.

QUESTIONS?

Check out the **Admissions FAQ** (<https://grad.wisc.edu/admissions/faq>) or contact us, iegradadmission@engr.wisc.edu.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Financial assistance, such as TA, PA, or RA positions from the university or the department is not recommended given the accelerated structure and timeline of the program.

If you would like to pursue funding on your own, the following sites could be helpful:

- Graduate School Funding Resources (<https://grad.wisc.edu/studentfunding/prospective>)
- Graduate School Costs and Funding (<https://grad.wisc.edu/studentfunding/currentstudents>)
- Tuition & Fees (https://registrar.wisc.edu/tuition_&_fees.htm)

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	Yes

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements Grades of C and D received by a candidate in any graduate course will not be counted as credit toward the degree. These grades will be counted in the graduate GPA.

Assessments and Examinations None.

Language Requirements No language requirements.

REQUIRED COURSES

Below is a typical curriculum for those pursuing an M.S. in Industrial Engineering with a named option in Human Factors and Health Systems Engineering. Please note the Human Factors and Health Systems Engineering program is a customizable program and students should work out other course options with their faculty advisor.

Fall Potential Courses:

Code	Title	Credits
I SY E 313	Engineering Economic Analysis	3
I SY E/PSYCH 349	Introduction to Human Factors	3
I SY E 417	Health Systems Engineering	3
I SY E/PSYCH 653	Organization and Job Design	3
I SY E 601	Special Topics in Industrial Engineering	1-3

Spring Potential Courses:

Code	Title	Credits
I SY E 313	Engineering Economic Analysis	3
I SY E/PSYCH 349	Introduction to Human Factors	3
I SY E 417	Health Systems Engineering	3
I SY E 555	Human Performance and Accident Causation	3
I SY E/MED PHYS 559	Patient Safety and Error Reduction in Healthcare	2
I SY E/B M E 564	Occupational Ergonomics and Biomechanics	3
I SY E 575	Introduction to Quality Engineering	3
I SY E 601	Special Topics in Industrial Engineering	1-3
I SY E/PHARMACY 608	Safety and Quality in the Medication Use System	3

Summer Potential Courses:

Code	Title	Credits
I SY E 313	Engineering Economic Analysis	3
I SY E/PSYCH 349	Introduction to Human Factors	3
I SY E 516	Introduction to Decision Analysis	3
I SY E 575	Introduction to Quality Engineering	3
I SY E 601	Special Topics in Industrial Engineering	1-3

Other Department Course Suggestions:

Code	Title	Credits
NURSING 761	Health Program Planning, Evaluation, and Quality Improvement	3
POP HLTH/SOC 797	Introduction to Epidemiology	3
POP HLTH/I SY E 875	Cost Effectiveness Analysis in Health and Healthcare	3
POP HLTH 876	Measuring Health Outcomes	3
OTM 753	Healthcare Operations Management	3
B M I 773	Clinical Research Informatics	3
B M I/COMP SCI 576	Introduction to Bioinformatics	3
B M I/COMP SCI 776	Advanced Bioinformatics	3

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

NAMED OPTION-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (https://www.engr.wisc.edu/app/uploads/2016/02/ISYE_New_Grad_Handbook-4.pdf) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 9 credits of graduate course work from other institutions.

UW–Madison Undergraduate

UW-Madison students completing their bachelor's degree in the Industrial and Systems Engineering department may count up to 6 credits of coursework numbered 300 or above toward the degree with prior program approval.

UW–Madison University Special

Allowed up to 15 credits numbered 300 or above toward graduate residence credit requirement and graduate degree credit requirement. If the courses were numbered 700 or above they may count toward the minimum graduate coursework (50%) requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Per Graduate School policy, every graduate student MUST have a faculty advisor. A faculty advisor provides the graduate student with academic guidance regarding their course selection and research oversight in their thesis or project. Graduate students should always seek advice from their advisor and other faculty in their interest area prior to enrolling for courses.

When graduate students are admitted to the I Sy E department, their advisor is either (a) the faculty person providing financial support, (b) the faculty who recommended their admission, or (c) a faculty is assigned to them by the student services coordinator. Advisors are assigned according to a student's chosen Focus Area.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

Enrollment of 12 credits is highly recommended.

TIME CONSTRAINTS

Complete in one calendar year: fall, spring and summer.

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Named Options Policy (https://www.engr.wisc.edu/app/uploads/2016/02/ISyE_P_16.2_Named-Options-Policy-Requirements.pdf)

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PEOPLE

Faculty Directory

FACULTY PROFESSORS

- Oguzhan Alagoz (https://directory.engr.wisc.edu/ie/Faculty/Alagoz_Oguzhan)
- Vicki Bier (https://directory.engr.wisc.edu/ie/Faculty/Bier_Vicki)
- Pascale Carayon (https://directory.engr.wisc.edu/ie/Faculty/Carayon_Pascale)
- Ananth Krishnamurthy (https://directory.engr.wisc.edu/ie/Faculty/Krishnamurthy_Ananth)
- John Lee (https://directory.engr.wisc.edu/ie/Faculty/Lee_John)
- Jingshan Li (https://directory.engr.wisc.edu/ie/Faculty/Li_Jingshan)
- Jeff Linderoth (https://directory.engr.wisc.edu/ie/Faculty/Linderoth_Jeffrey) (Department Chair)
- Robert Radwin (https://directory.engr.wisc.edu/ie/Faculty/Radwin_Robert)
- Leyuan Shi (https://directory.engr.wisc.edu/ie/Faculty/Shi_Leyuan)
- Raj Veeramani (https://directory.engr.wisc.edu/ie/Faculty/Veeramani_Raj)
- Shiyu Zhou (https://directory.engr.wisc.edu/ie/Faculty/Zhou_Shiyu)

ASSOCIATE PROFESSORS

- Laura Albert (https://directory.engr.wisc.edu/ie/Faculty/Albert-mclay_Laura)
- Jim Luedtke (https://directory.engr.wisc.edu/ie/Faculty/Luedtke_James)
- Doug Wiegmann (https://directory.engr.wisc.edu/ie/Faculty/Wiegmann_Douglas)

ASSISTANT PROFESSORS

- Alberto Del Pia (https://directory.engr.wisc.edu/ie/Faculty/Del-pia_Alberto)
- Kaibo Liu (https://directory.engr.wisc.edu/ie/Faculty/Liu_Kaibo)
- Carla Michini (https://directory.engr.wisc.edu/ie/Faculty/Michini_Carla)
- Xin Wang (https://directory.engr.wisc.edu/ie/Faculty/Wang_Xin)
- Nicole Werner (https://directory.engr.wisc.edu/ie/Faculty/Werner_Nicole)
- Gabriel Zayas-Caban (https://directory.engr.wisc.edu/ie/Faculty/Zayas-caban_Gabriel)

AFFILIATE FACULTY

- Barbara Bowers (https://directory.engr.wisc.edu/ie/Faculty/Bowers_Barbara)

- Elizabeth S. Burnside (https://directory.engr.wisc.edu/ie/Faculty/Burnside_Elizabeth)
- Molly Carnes (https://directory.engr.wisc.edu/ie/Faculty/Carnes_Mary)
- Peter Chien (https://directory.engr.wisc.edu/ie/Faculty/Chien_Peter)
- Gregory DeCroix (https://directory.engr.wisc.edu/ie/Faculty/Decroix_Gregory)
- Michael Ferris (https://directory.engr.wisc.edu/ie/Faculty/Ferris_Michael)
- Caprice Greenberg (https://directory.engr.wisc.edu/ie/Faculty/Greenberg_Caprice)
- Po-ling Loh (https://directory.engr.wisc.edu/ece/Faculty/Loh_Po-ling)
- Eneida Mendonca (https://directory.engr.wisc.edu/ie/Faculty/Mendonca_Eneida)
- Bilge Mutlu (https://directory.engr.wisc.edu/ie/Faculty/Mutlu_Bilge)
- David Noyce (https://directory.engr.wisc.edu/cee/Faculty/Noyce_David)
- Kevin Ponto (https://directory.engr.wisc.edu/ie/Faculty/Ponto_Kevin)
- Carla Pugh (https://directory.engr.wisc.edu/ie/Faculty/Pugh_Carla)
- Andrew Quanbeck (https://directory.engr.wisc.edu/ie/Faculty/Quanbeck_Andrew)
- Thomas Rutherford (https://directory.engr.wisc.edu/ie/Faculty/Rutherford_Thomas)
- Nasia Safdar (https://directory.engr.wisc.edu/ie/Faculty/Safdar_Nasia)
- Mary Elizabeth Sesto (https://directory.engr.wisc.edu/bme/Faculty/Sesto_Mary)
- Dhavan V. Shah (https://directory.engr.wisc.edu/ie/Faculty/Shah_Dhavan)
- Maureen A. Smith (https://directory.engr.wisc.edu/ie/Faculty/Smith_Maureen)
- Linsey Steege (https://directory.engr.wisc.edu/ie/Faculty/Steege_Linsey)
- Bruce R. Thomadsen (https://directory.engr.wisc.edu/bme/Faculty/Thomadsen_Bruce)
- David J. Vanness (https://directory.engr.wisc.edu/ie/Faculty/Vanness_David)
- Rebecca Willett (https://directory.engr.wisc.edu/ece/Faculty/Willett_Rebecca)
- Stephen J. Wright (https://directory.engr.wisc.edu/ie/Faculty/Wright_Stephen)
- Victor Zavala (https://directory.engr.wisc.edu/che/Faculty/Zavala_Victor)
- Stephen M. Robinson (https://directory.engr.wisc.edu/ie/Faculty/Robinson_Stephen)
- Jerry L. Sanders (https://directory.engr.wisc.edu/ie/Faculty/Sanders_Jerry)
- Michael J. Smith (https://directory.engr.wisc.edu/ie/Faculty/Smith_Michael)
- Harold J. Steudel (https://directory.engr.wisc.edu/ie/Faculty/Steudel_Harold)
- Rajan Suri (https://directory.engr.wisc.edu/ie/Faculty/Suri_Rajan)
- Arne Thesen (https://directory.engr.wisc.edu/ie/Faculty/Thesen_Arne)
- Gregg Vanderheiden (https://directory.engr.wisc.edu/ie/Faculty/Vanderheiden_Gregg)
- David R. Zimmerman (https://directory.engr.wisc.edu/ie/Faculty/Zimmerman_David)

INDUSTRIAL ENGINEERING: SYSTEMS ENGINEERING AND ANALYTICS, M.S.

This is a named option within the Industrial and Systems Engineering M.S. (p. 771)

The program in Systems Engineering and Analytics (<https://www.engr.wisc.edu/app/uploads/2017/02/SEA-Web-1.pdf>) will train students to recognize, identify, analyze, and solve decision problems arising in the efficient operations of engineering systems. The program focuses on methods and models for data analytics and data-driven decision-making.

IS THIS PROGRAM RIGHT FOR YOU?

Analytics, and the ability to effectively utilize data, is quickly becoming an important component in engineering decision making. There is a strong need in the marketplace for people who use analytical tools to transform data into insights for making better decisions. The Systems Engineering and Analytics option within the UW–Madison graduate program in Industrial and Systems Engineering offers students the opportunity to pursue graduate training in this important and emerging area, under the auspices of the foremost experts in their field, in one of the world's top-ranked departments of industrial and systems engineering. (We were ranked 8th in the latest *US News and World Report* rankings). The flexible curricula in Systems Engineering and Analytics enable students to tailor their degree program to suit their particular needs and career objectives.

After completing your degree, you will be able to analyze, process, and build conclusions based on the data you collect in the design, testing, and operations phases of engineering and design processes.

The program includes training in optimization models and methods, applied industrial analytics, simulation modeling and analysis, and courses wherein these analytical and computational tools are applied in an engineering systems setting. These learned skills are now highly sought after in manufacturing, transportation, finance, healthcare, and other industrial sectors.

EMERITUS PROFESSORS

- John G. Bollinger (https://directory.engr.wisc.edu/ie/Faculty/Bollinger_John)
- Patricia Brennan (https://directory.engr.wisc.edu/ie/Faculty/Brennan_Patricia)
- Dennis G. Fryback (https://directory.engr.wisc.edu/ie/Faculty/Fryback_Dennis)
- David Gustafson (https://directory.engr.wisc.edu/ie/Faculty/Gustafson_David)
- William G. Reddan (https://directory.engr.wisc.edu/ie/Faculty/Reddan_William)

WHAT YOU LEARN

- Acquire mathematical, scientific, and engineering principles in analytics.
- Utilize data-driven methodologies to formulate, analyze, and solve advanced engineering problems.
- Evaluate relevant analytical, computational, engineering tools to address advanced systems engineering problems.
- Solve real-world problems using computer-assisted, data-driven decision making technologies.

If questions, please contact COE Grad Admissions at iegradadmission@engr.wisc.edu; Subject Line: IE Grad Admissions and I Sy E Seniors please contact Pam Peterson, prpeter@wisc.edu, with questions. *Please see admission requirements under the Apply Now tab below.*

ADMISSIONS

APPLICATION DEADLINES

- **Fall 2018***: January 1 (*Non-UW IE students can only apply for fall semester.)
- **Spring Admission**: October 1 (ONLY UW–Madison IE seniors are eligible for spring admission.)

ADMISSIONS

Applicants must first meet all of the requirements of the Graduate School.

- Applicants must also meet department specific requirements as outlined below:
 - BS degree in industrial engineering or related area or equivalent
 - Mathematical Statistics Course (for example, STAT 312)
 - Introduction to Programming Course (for example, COMP SCI 301)
 - Non-native English speakers must have a Test of English as a Foreign Language (TOEFL) score of 580 (written), 243 (computer-based test), or 92 (Internet version).
 - The Graduate Record Examination (GRE) is *required for all masters programs in I Sy E. Information on taking the GRE exam can be found here (<https://www.ets.org/gre>). Please note: Applicants should plan to take their exam by December 1 to allow scores to be sent and processed.

**I Sy E undergrads and applicants with prior institutional approval are waived from the GRE requirement.*

HOW TO APPLY

1. **Fill out an online application** (<https://apply.grad.wisc.edu/Account/Login?ReturnUrl=%2f>) through the Graduate School website and pay the application fee (<https://grad.wisc.edu/admissions/faq>).
2. **List three recommenders and their contact information as part of the online application.** An email will be sent to the recommender, asking that they submit their letter online using the Graduate School's recommendation form. Applicants can log back into their online application to re-send the email request if the recommender loses the email. Letters of recommendation must be submitted electronically.

3. **Submit a Statement of Purpose** (<https://grad.wisc.edu/prospective/prepare/statement>) **with your online application.**
4. **GRE Exam Information** (<https://www.ets.org/gre>) (**STARTING FALL 2018**): The course-only option does require the GRE exam be taken by prospective students as part of the application but **note there are no specific scoring guidelines for the exam** as the GRE is only one part of consideration for admission into the program. **Please note:** Applicants should plan to take their exam by Dec. 1st to allow scores to be sent and processed.
5. **TOEFL Exam Information: Ask ETS** (<https://www.ets.org>) **to submit your TOEFL scores to the UW–Madison Graduate School (Institution Number 1846).** If you have your scores sent to UW–Madison, they will be available online to all departments to which you have applied. The institution code, therefore, is the only number needed. For more information please visit the Graduate School Requirements (<https://grad.wisc.edu/admissions/requirements>) page. Please note: Exam information must be valid at start date of the semester that you are applying for (nonexpired).
6. **Electronically submit one copy of your official transcript with your application.** Unofficial copies of transcripts will be accepted for review but official copies are required for admitted students.

FOR UW STUDENTS ONLY:

1. **UW IE Undergrads no longer need to submit a separate paper application**—only the online application is required with a statement of purpose.
2. **Three letters of recommendation are NOT required for students completing their I Sy E bachelor's degree at UW.** Please note that the application system will still require you to list three individuals as recommenders. You are welcome to list Jim Luedtke, Pam Peterson, and Maria Zarzalejo to bypass this requirement.
3. **I Sy E undergrads and applicants with prior institutional approval are waived from the GRE requirement.**
4. **UW–Madison undergraduate students applying to this program do not need to submit a UW transcript.**

#Submit only the documents requested.

Apply now

NOTE: PLEASE DO NOT SEND DOCUMENTS TO THE GRADUATE SCHOOL. ALL DOCUMENTS SHOULD BE UPLOADED WITH YOUR APPLICATION.

***Application deadlines are strictly enforced and ALL application materials including transcripts, letters and TOEFL scores MUST be included and submitted by the application deadline. Please note our office does not provide feedback to applicants as to their potential for admission - please review both the I Sy E department and Graduate School requirements for admission and if you feel you meet the necessary criteria for applying, please do so.**

QUESTIONS??

Check out the Admissions FAQ (<https://grad.wisc.edu/admissions/faq>) or contact us at iegradadmission@engr.wisc.edu.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have

researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Financial assistance, such as TA, PA, or RA positions from the university or the department is not recommended given the accelerated structure and timeline of the program.

If you would like to pursue funding on your own, the following sites could be helpful:

- Graduate School Funding Resources (<https://grad.wisc.edu/studentfunding/prospective>)
- Graduate School Costs and Funding (<https://grad.wisc.edu/studentfunding/currentstudents>)
- Tuition & Fees (https://registrar.wisc.edu/tuition_&_fees.htm)

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	Yes

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement	30 credits
Minimum Residence Credit Requirement	15 credits
Minimum Graduate Coursework Requirement	Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (https://registrar.wisc.edu/course-guide/).
Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	Grades of C and D received by a candidate in any graduate course will not be counted as credit toward the degree. These grades will be counted in the graduate GPA.
Assessments and Examinations	None.
Language Requirements	No language requirements.

REQUIRED COURSES

Below is a typical curriculum for those pursuing a M.S. in Industrial Engineering with a named option in Systems Engineering and Analytics. Please note the Systems Engineering and Analytics program is a customizable program and students should work out other course options with their faculty advisor.

Fall Potential Courses:

Code	Title	Credits
I SY E 313	Engineering Economic Analysis	3
I SY E 412	Fundamentals of Industrial Data Analytics	3
I SY E/M E 510	Facilities Planning	3
I SY E/M E 512	Inspection, Quality Control and Reliability	3
I SY E/COMP SCI/ E C E 524	Introduction to Optimization	3
I SY E/COMP SCI/ MATH/STAT 525	Linear Programming Methods	3
I SY E 601	Special Topics in Industrial Engineering	1-3
I SY E 624	Stochastic Modeling Techniques	3
I SY E 645	Engineering Models for Supply Chains	3
I SY E 699	Advanced Independent Study	1-5

Spring Potential Courses:

Code	Title	Credits
ISY E 313	Engineering Economic Analysis	3
ISY E 412	Fundamentals of Industrial Data Analytics	3
ISY E/M E 512	Inspection, Quality Control and Reliability	3
ISY E 517	Decision Making in Health Care	3
ISY E 575	Introduction to Quality Engineering	3
ISY E 601	Special Topics in Industrial Engineering	1-3
ISY E 612	Information Sensing and Analysis for Manufacturing Processes	3
ISY E 615	Production Systems Control	3
ISY E 620	Simulation Modeling and Analysis	3
ISY E/M E 641	Design and Analysis of Manufacturing Systems	3
ISY E/M E 643	Performance Analysis of Manufacturing Systems	3
ISY E 699	Advanced Independent Study	1-5

Summer Potential Courses:

Code	Title	Credits
ISY E 313	Engineering Economic Analysis	3
ISY E 516	Introduction to Decision Analysis	3
ISY E 575	Introduction to Quality Engineering	3
ISY E 601	Special Topics in Industrial Engineering	1-3
ISY E 699	Advanced Independent Study	1-5

POLICIES**GRADUATE SCHOOL POLICIES**

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

**NAMED OPTION-SPECIFIC POLICIES
GRADUATE PROGRAM HANDBOOK**

The Graduate Program Handbook (https://www.engr.wisc.edu/app/uploads/2016/02/ISYE_New_Grad_Handbook-4.pdf) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK**Graduate Work from Other Institutions**

With program approval, students are allowed to count no more than 9 credits of graduate course work from other institutions.

UW–Madison Undergraduate

UW-Madison students completing their bachelor's degree in the Industrial and Systems Engineering department may count up to 6 credits of coursework numbered 300 or above toward the degree with prior program approval.

UW–Madison University Special

Allowed up to 15 credits numbered 300 or above toward graduate residence credit requirement and graduate degree credit requirement. If the courses were numbered 700 or above they may count toward the minimum graduate coursework (50%) requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Per Graduate School policy, every graduate student MUST have a faculty advisor. A faculty advisor provides the graduate student with academic guidance regarding their course selection and research oversight in their thesis or project. Graduate students should always seek advice from their advisor and other faculty in their interest area prior to enrolling for courses.

When graduate students are admitted to the I Sy E department, their advisor is either (a) the faculty person providing financial support, (b) the faculty who recommended their admission, or (c) a faculty is assigned to them by the student services coordinator. Advisors are assigned according to a student's chosen Focus Area.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

Enrollment of 12 credits is highly recommended.

TIME CONSTRAINTS

Complete in one calendar year: fall, spring, and summer.

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Named Options Policy (https://www.engr.wisc.edu/app/uploads/2016/02/ISyE_P_16.2_Named-Options-Policy-Requirements.pdf)

PROFESSIONAL DEVELOPMENT**GRADUATE SCHOOL RESOURCES**

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PEOPLE

Faculty Directory

FACULTY

PROFESSORS

- Oguzhan Alagoz (https://directory.engr.wisc.edu/ie/Faculty/Alagoz_Oguzhan)
- Vicki Bier (https://directory.engr.wisc.edu/ie/Faculty/Bier_Vicki)
- Pascale Carayon (https://directory.engr.wisc.edu/ie/Faculty/Carayon_Pascale)
- Ananth Krishnamurthy (https://directory.engr.wisc.edu/ie/Faculty/Krishnamurthy_Ananth)
- John Lee (https://directory.engr.wisc.edu/ie/Faculty/Lee_John)
- Jingshan Li (https://directory.engr.wisc.edu/ie/Faculty/Li_Jingshan)
- Jeff Linderoth (https://directory.engr.wisc.edu/ie/Faculty/Linderoth_Jeffrey) (Department Chair)
- Robert Radwin (https://directory.engr.wisc.edu/ie/Faculty/Radwin_Robert)
- Leyuan Shi (https://directory.engr.wisc.edu/ie/Faculty/Shi_Leyuan)
- Raj Veeramani (https://directory.engr.wisc.edu/ie/Faculty/Veeramani_Raj)
- Shiyu Zhou (https://directory.engr.wisc.edu/ie/Faculty/Zhou_Shiyu)

ASSOCIATE PROFESSORS

- Laura Albert (https://directory.engr.wisc.edu/ie/Faculty/Albertmclay_Laura)
- Jim Luedtke (https://directory.engr.wisc.edu/ie/Faculty/Luedtke_James)
- Doug Wiegmann (https://directory.engr.wisc.edu/ie/Faculty/Wiegmann_Douglas)

ASSISTANT PROFESSORS

- Alberto Del Pia (https://directory.engr.wisc.edu/ie/Faculty/Delpia_Alberto)
- Kaibo Liu (https://directory.engr.wisc.edu/ie/Faculty/Liu_Kaibo)
- Carla Michini (https://directory.engr.wisc.edu/ie/Faculty/Michini_Carla)
- Xin Wang (https://directory.engr.wisc.edu/ie/Faculty/Wang_Xin)
- Nicole Werner (https://directory.engr.wisc.edu/ie/Faculty/Werner_Nicole)
- Gabriel Zayas-Caban (https://directory.engr.wisc.edu/ie/Faculty/Zayas-caban_Gabriel)

AFFILIATE FACULTY

- Barbara Bowers (https://directory.engr.wisc.edu/ie/Faculty/Bowers_Barbara)
- Elizabeth S. Burnside (https://directory.engr.wisc.edu/ie/Faculty/Burnside_Elizabeth)
- Molly Carnes (https://directory.engr.wisc.edu/ie/Faculty/Carnes_Mary)
- Peter Chien (https://directory.engr.wisc.edu/ie/Faculty/Chien_Peter)
- Gregory DeCroix (https://directory.engr.wisc.edu/ie/Faculty/Decroix_Gregory)

- Michael Ferris (https://directory.engr.wisc.edu/ie/Faculty/Ferris_Michael)
- Caprice Greenberg (https://directory.engr.wisc.edu/ie/Faculty/Greenberg_Caprice)
- Po-ling Loh (https://directory.engr.wisc.edu/ece/Faculty/Loh_Po-ling)
- Eneida Mendonca (https://directory.engr.wisc.edu/ie/Faculty/Mendonca_Eneida)
- Bilge Mutlu (https://directory.engr.wisc.edu/ie/Faculty/Mutlu_Bilge)
- David Noyce (https://directory.engr.wisc.edu/cee/Faculty/Noyce_David)
- Kevin Ponto (https://directory.engr.wisc.edu/ie/Faculty/Ponto_Kevin)
- Carla Pugh (https://directory.engr.wisc.edu/ie/Faculty/Pugh_Carla)
- Andrew Quanbeck (https://directory.engr.wisc.edu/ie/Faculty/Quanbeck_Andrew)
- Thomas Rutherford (https://directory.engr.wisc.edu/ie/Faculty/Rutherford_Thomas)
- Nasia Safdar (https://directory.engr.wisc.edu/ie/Faculty/Safdar_Nasia)
- Mary Elizabeth Sesto (https://directory.engr.wisc.edu/bme/Faculty/Sesto_Mary)
- Dhavan V. Shah (https://directory.engr.wisc.edu/ie/Faculty/Shah_Dhavan)
- Maureen A. Smith (https://directory.engr.wisc.edu/ie/Faculty/Smith_Maureen)
- Linsey Steege (https://directory.engr.wisc.edu/ie/Faculty/Steege_Linsey)
- Bruce R. Thomadsen (https://directory.engr.wisc.edu/bme/Faculty/Thomadsen_Bruce)
- David J. Vanness (https://directory.engr.wisc.edu/ie/Faculty/Vanness_David)
- Rebecca Willett (https://directory.engr.wisc.edu/ece/Faculty/Willett_Rebecca)
- Stephen J. Wright (https://directory.engr.wisc.edu/ie/Faculty/Wright_Stephen)
- Victor Zavala (https://directory.engr.wisc.edu/che/Faculty/Zavala_Victor)

EMERITUS PROFESSORS

- John G. Bollinger (https://directory.engr.wisc.edu/ie/Faculty/Bollinger_John)
- Patricia Brennan (https://directory.engr.wisc.edu/ie/Faculty/Brennan_Patricia)
- Dennis G. Fryback (https://directory.engr.wisc.edu/ie/Faculty/Fryback_Dennis)
- David Gustafson (https://directory.engr.wisc.edu/ie/Faculty/Gustafson_David)
- William G. Reddan (https://directory.engr.wisc.edu/ie/Faculty/Reddan_William)
- Stephen M. Robinson (https://directory.engr.wisc.edu/ie/Faculty/Robinson_Stephen)
- Jerry L. Sanders (https://directory.engr.wisc.edu/ie/Faculty/Sanders_Jerry)
- Michael J. Smith (https://directory.engr.wisc.edu/ie/Faculty/Smith_Michael)
- Harold J. Steudel (https://directory.engr.wisc.edu/ie/Faculty/Steudel_Harold)

- Rajan Suri (https://directory.engr.wisc.edu/ie/Faculty/Suri_Rajan)
- Arne Thesen (https://directory.engr.wisc.edu/ie/Faculty/Thesen_Arne)
- Gregg Vanderheiden (https://directory.engr.wisc.edu/ie/Faculty/Vanderheiden_Gregg)
- David R. Zimmerman (https://directory.engr.wisc.edu/ie/Faculty/Zimmerman_David)

INDUSTRIAL ENGINEERING, PH.D.

The Department of Industrial and Systems Engineering offers opportunities for graduate study leading to the master of science and the doctor of philosophy degrees in industrial and systems engineering.

In the Ph.D. program, four areas of specialization are available, each designed to produce graduates capable of leading new and developing areas within industrial and systems engineering. The four areas are: decision science/operations research, health systems, human factors and ergonomics, and manufacturing and production systems.

The Department also offers three distinct master of science programs. The two named options programs, Human Factors and Systems Engineering (HFSE) and Systems Engineering and Analysis (SEA), are accelerated programs that can be completed in one full year of study, and are designed for students wishing to pursue a career in industry or government. The traditional master of science program is designed for students wishing to conduct research during their program.

The Department also offers a graduate/professional certificate in patient safety. This certificate is an interdisciplinary effort between the Department of Industrial and Systems Engineering, School of Nursing, School of Pharmacy, Department of Medical Physics, and Department of Population Health Sciences.

The specialization in *decision science/operations research* trains students in analytical methodologies useful for solving decision problems, especially problems that involve the allocation of scarce resources, and the design, planning and operation of complex systems. Graduate study focuses on optimization modeling and algorithms, applied probability and stochastic modeling, and decision analysis.

The *health systems* specialization seeks to train students to look at broad issues in health care, including long-term care, prevention, quality improvement, health care financing, and system evaluation. Understanding how people solve problems is a basic requirement for health systems engineers, who must apply scientific methods in a value-laden setting.

The specialization in *human factors and ergonomics* is concerned with the quality of work lives, ergonomics, and occupational safety and health for both workers and management. By examining, designing, testing, and evaluating the workplace and how people interact within it, human systems engineers can create productive, safe, and satisfying work environments.

The specialization in *manufacturing and production systems* is intended to provide the skills and knowledge necessary to compete successfully in a manufacturing environment. These skills include knowledge of the theory of manufacturing materials and processes and their control; knowledge of the essentials of manufacturing systems design and analysis; and

knowledge of and hands-on experience with modern manufacturing technology.

ADMISSIONS

Although an undergraduate industrial engineering degree is recommended, students from any discipline with a strong quantitative science emphasis are encouraged to apply. Applicants are strongly advised to review the prerequisites for each area of specialization at the department website (<https://www.engr.wisc.edu/academics/graduate-academics>).

Each application is judged on the basis of previous academic record, Graduate Record Exam (GRE) scores for the general test, three letters of recommendation, and the statement of purpose. Admission is very competitive and application deadlines are extremely important.

APPLICATION DEADLINES:

- **Fall:** January 1
- **Spring:** October 1
- **Summer:** January 1

Reentry applicants: August 1 (fall), December 1 (spring), and must notify an academic advisor.

Additional reentry information (<https://grad.wisc.edu/admissions/previouslyenrolled>)

Note: *Although we accept summer applications we recommend applying for fall or spring as there are not many courses offered in the summer.*

APPLICATION REQUIREMENTS

Application deadlines are strictly enforced and ALL application materials including transcripts, GRE and TOEFL scores MUST be included and submitted by the application deadline.

***Please note our office does not provide feedback to applicants as to their potential for admission - please review both the I SY E department and Graduate School requirements for admission and if you feel you meet the necessary criteria for applying, please do so.**

1. Applicants must first meet all of the requirement of the Graduate School. Click here for more information about these requirements (<http://grad.wisc.edu/admissions/requirements>).
2. Applicants must also meet department specific requirements as outlined below:
 - B.S. degree or equivalent

APPLICATION STEPS

1. **Fill out an online application** (<https://grad.wisc.edu/apply>) through the Graduate School website and pay the application fee. (<https://grad.wisc.edu/admissions/faq>)
2. **List three recommenders and their contact information as part of the online application.** An email will be sent to the recommender, asking that they submit their letter online using the Graduate School's recommendation form. Applicants can log back into their online application to re-send the email request if the recommender loses the email. Letters of recommendation must be submitted electronically.

3. Submit a **Statement of Purpose** (<https://grad.wisc.edu/prospective/prepare/statement>) with your online application.
4. **TOEFL Exam Information: Ask ETS** (<https://www.ets.org>) to submit your GRE and/or TOEFL scores to the UW–Madison Graduate School (Institution Number 1846). If you have your scores sent to UW–Madison, they will be available online to all departments to which you have applied. The institution code, therefore, is the only number needed. For more information please visit the **Graduate School Requirements** (<https://grad.wisc.edu/admissions/requirements>) page. Please note: Exam information must be valid at start date of the semester that you are applying for (nonexpired).
5. **GRE Exam Information:** (<https://www.ets.org/gre>) The IE graduate program does require the GRE exam be taken by prospective students as part of the application but **note there are no specific scoring guidelines for the exam** as the GRE is only one part of consideration for admission into the program. Please note: Exam information must be valid at start date of the semester that you are applying for (nonexpired).
6. **Electronically submit one copy of your official transcript with your application.** Unofficial copies of transcripts will be accepted for review but official copies are required for admitted students.

#Submit only the documents requested.

NOTE: PLEASE DO NOT SEND DOCUMENTS TO THE GRADUATE SCHOOL. ALL DOCUMENTS SHOULD BE UPLOADED WITH YOUR APPLICATION.

QUESTIONS?

Check out the Admissions FAQ or contact us at iegradadmission@engr.wisc.edu.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

FINANCIAL ASSISTANCE

Please note that most funding is available for Ph.D. students and there is limited resources for M.S. students. International students must prove one year of funding before requesting assistance.

If you choose to attend UW–Madison and plan to pursue funding on your own, the following sites could be very helpful:

- Graduate School Funding Resources (<https://grad.wisc.edu/studentfunding/prospective>)

- Graduate School Costs and Funding (<https://grad.wisc.edu/studentfunding/currentstudents>)
- Tuition & Fees (https://registrar.wisc.edu/tuition_&_fees.htm)

TO APPLY FOR TA OR GRADER POSITION

- **Teaching Assistant** (https://docs.google.com/forms/d/e/1FAIpQLSeT-Q1ISnemo4RBjJMNQrohrsFHPT7DoWivVK8_ot-iYce16Q/viewform?usp=sf_link)
- **Grader** (https://docs.google.com/a/wisc.edu/forms/d/e/1FAIpQLSeh-wQWWIXqp_y_GF_utRk9Tv-8Lmy9-0LKU83xWRcsJiAGA/viewform)

Application Process:

Teaching assistant and grader positions are appointed each semester. New TAs must submit an application each semester in order to be considered. If you currently are a TA in Industrial and Systems Engineering, you do not need to complete an application each semester.

The number of positions is limited, and the application process is highly competitive. Priority is given to those with current positions who are in good standing and would like to continue teaching. Only after these positions are filled do we look at other applicants. The number of new positions available each semester is generally low, especially in the spring. While this should not deter you from applying, please keep it in mind when planning for the semester.

The department will consider graduate students from other departments only when there are no qualified applicants from the Department of Industrial and Systems Engineering.

Expected timing for appointments:

Appointments for teaching assistants are generally made in August for the fall semester and in early December for the spring semester. Grader appointments are appointed along a similar timeline, but often a few weeks later.

Once hired:

Students hired into a TA position are required to attend the New Educator Orientation (NAO) training in late August. For more details, please see this website (<http://ceete.engr.wisc.edu/ta-training>).

Speaking requirements for international students:

All international students applying for teaching assistant positions must meet the UW–Madison Graduate School's requirement (<https://www.google.com/url?q=https%3A%2F%2Fkb.wisc.edu%2Fpage.php%3Fid%3D25268&sa=D&sntz=1&usg=AFQjCNGc8qLuqvUy99uLQF5zTnKMZmhBvA>) for spoken English BEFORE they can be considered as a TA. This requirement can be fulfilled in two ways:

1. Pass the SPEAK (<http://www.google.com/url?q=http%3A%2F%2Fwww.english.wisc.edu%2Fesl%2Fspeak.htm&sa=D&sntz=1&usg=AFQjCNE8zovH5WAVlddfwe3j377k5J0ePQ>) you can register for the SPEAK test through Aaron Webster in Room 3180 ME, aaron.webster@wisc.edu.
2. Receive a 26 or higher on the speaking portion of the TOEFL test (or equivalent). Provide a copy of your score to Aaron Webster in Room 3180 ME, aaron.webster@wisc.edu

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 51 credits

Minimum Residence Credit Requirement 32 credits

Minimum Graduate Coursework Requirement Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements Grades of C and D received by a candidate in any graduate course will not be counted as credit toward the degree. These grades will be counted in the graduate GPA.

Assessments and Examinations Examinations: qualifying exam, preliminary exam, and final oral defense.

Qualifying Exam: Students must register for the I Sy E Qualifying Exams for all focus areas by 4 p.m. on the first Friday of September. The I Sy E Ph.D. qualifying examination is only offered once a year in September. The exam consists of two requirements: fulfilling student's Focus Area Qualifying Exam and fulfilling the Breadth Course requirement:

Policy and Guidelines: Each student wishing to be a Ph.D. candidate in the I Sy E department must select an area group and satisfy the Qualifying Examination Requirement in that area. The detailed reading list and exam format of each area group can be found at the department office. Students can change area groups without retaking the Qualifying Exam with the permission of their Ph.D. advisors.

Breadth Requirement: The breadth requirement is to make the Ph.D. student achieve minimum competence in multiple areas of industrial and systems engineering. It consists of taking at least two courses (6 credits) from a list of ISyE courses and attaining a grade of B or above in both courses. The courses selected by the student must be approved by the student's advisor and must be in at least two areas that are different from the area group in which the student's qualifying exam is taken.

Focus Areas: Qualifying exams are offered in the following focus areas and are written and graded by the area group. Exam: For students in Decision Science, Health systems, or Manufacturing & Production Systems, a written examination is given. For specific requirements, please see the I Sy E Qualifying Exam (<https://www.engr.wisc.edu/app/uploads/2016/01/Qualifying-Exam-Registration.pdf>) information under the I Sy E Program Requirements and the I Sy E Qualifying Exam Policy (<https://www.engr.wisc.edu/app/uploads/2016/02/Document-General-Policy-for-ISyE-Qualifying-Exams.pdf>). Students in Human Factors must request a reading list from their advisor at least 6 months before taking the Qualifying Exam. They must then complete a take-home written exam and a 1-hour oral exam. For specific requirements, please see the Human Factors Qualifying Exam Policy (<https://www.engr.wisc.edu/app/uploads/2016/05/Revised-PhD-Degree-Requirements-for-the-Human-Factors-and-Ergonomics-Spe...-1.pdf>) and the I Sy E Qualifying Exam Policy (<https://www.engr.wisc.edu/app/uploads/2016/02/Document-General-Policy-for-ISyE-Qualifying-Exams.pdf>).

Doctoral students are required to take a comprehensive preliminary (<https://grad.wisc.edu/acadpolicy/?policy=preliminaryexaminations>)/oral examination (<https://grad.wisc.edu/acadpolicy/?policy=finaloralexamination>) after they have cleared their record of all Incomplete and Progress grades (other than research and thesis). Deposit of the doctoral dissertation in the Graduate School is required.

Language Requirements No language requirements.

Doctoral Minor/Breadth Requirements All doctoral students are required to complete a minor. The program also has additional breadth requirements: The breadth requirement is to make sure the Ph.D. student achieves minimum competence in multiple areas of industrial and systems engineering. It consists of taking at least two courses (6 credits) outside of the student's focus area. Students can choose from a select set of courses and must attain a grade of B or above in both courses. The courses selected by the student must be approved by the student's advisor and must be in at least two areas that are different from the area group in which the student's qualifying exam is taken. These courses must be completed before a Ph.D. student can request their Preliminary Warrant. Courses the student has taken before entering the Ph.D. program can be counted toward this breadth requirement, including courses taken as an undergraduate. Students should submit the course title and syllabus to the student services coordinator who will then seek approval from the chair of graduate affairs.

REQUIRED COURSES

Students choose one of the below research areas. The program recommends working with your faculty advisors to answer any questions and to form a plan of study.

Research Area Brochures:

- Decision Sciences and Operations Research (<https://www.engr.wisc.edu/app/uploads/2016/01/DSOR-web-1.pdf>)
- Health Systems Engineering (<https://www.engr.wisc.edu/app/uploads/2016/01/HSE-web-3.pdf>)
- Human Factors and Ergonomics (<https://www.engr.wisc.edu/app/uploads/2016/01/HFE-Web.pdf>)
- Manufacturing and Production Systems (<https://www.engr.wisc.edu/app/uploads/2016/01/MPS-Web.pdf>)
- Quality Engineering (<https://www.engr.wisc.edu/app/uploads/2016/01/QEweb.pdf>)

Decision Science/Operations Research Area ¹

Code	Title	Credits
I SY E 412	Fundamentals of Industrial Data Analytics	3
I SY E 415	Introduction to Manufacturing Systems, Design and Analysis	3
I SY E/COMP SCI/ MATH 425	Introduction to Combinatorial Optimization	3
I SY E/M E 512	Inspection, Quality Control and Reliability	3
I SY E/M E 513	Analysis of Capital Investments	3
I SY E 515	Engineering Management of Continuous Process Improvement	3
I SY E 516	Introduction to Decision Analysis	3
I SY E 517	Decision Making in Health Care	3
I SY E/COMP SCI/ E C E 524	Introduction to Optimization	3
I SY E/COMP SCI/ MATH/STAT 525	Linear Programming Methods	3
I SY E 575	Introduction to Quality Engineering	3

I SY E 612	Information Sensing and Analysis for Manufacturing Processes	3
I SY E 620	Simulation Modeling and Analysis	3
I SY E 624	Stochastic Modeling Techniques	3
I SY E/MATH/OTM/ STAT 632	Introduction to Stochastic Processes	3
I SY E/MATH/ OTM 633	Queuing Theory and Stochastic Modeling	3
I SY E/M E 641	Design and Analysis of Manufacturing Systems	3
I SY E/M E 643	Performance Analysis of Manufacturing Systems	3
I SY E 645	Engineering Models for Supply Chains	3
I SY E/INFO SYS/ OTM 671	E-Business: Technologies, Strategies and Applications	3
I SY E/ COMP SCI 719	Stochastic Programming	3
I SY E/ COMP SCI 723	Dynamic Programming and Associated Topics	3
I SY E/COMP SCI/ MATH/STAT 726	Nonlinear Optimization I	3
I SY E/ COMP SCI 727	Convex Analysis	3
I SY E/COMP SCI/ MATH 728	Integer Optimization	3
I SY E/COMP SCI/ MATH 730	Nonlinear Optimization II	3

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Health Systems Engineering Research Area ¹

Code	Title	Credits
I SY E/M E 513	Analysis of Capital Investments	3
I SY E 515	Engineering Management of Continuous Process Improvement	3
I SY E 516	Introduction to Decision Analysis	3
I SY E 517	Decision Making in Health Care	3
I SY E 555	Human Performance and Accident Causation	3
I SY E/ MED PHYS 559	Patient Safety and Error Reduction in Healthcare	2
I SY E 575	Introduction to Quality Engineering	3
I SY E 601	Special Topics in Industrial Engineering (Topics vary by semester)	1-3
I SY E/ PHARMACY 608	Safety and Quality in the Medication Use System	3
I SY E 615	Production Systems Control	3
I SY E/B M I 617	Health Information Systems	3
I SY E 620	Simulation Modeling and Analysis	3
I SY E 624	Stochastic Modeling Techniques	3
I SY E/MATH/ OTM 633	Queuing Theory and Stochastic Modeling	3

I SY E/M E 643	Performance Analysis of Manufacturing Systems	3
I SY E/PSYCH 652	Sociotechnical Systems	3
I SY E/PSYCH 653	Organization and Job Design	3
I SY E/B M E 662	Design and Human Disability and Aging	3
I SY E/INFO SYS/OTM 671	E-Business: Technologies, Strategies and Applications	3
I SY E/POP HLTH 703	Quality of Health Care: Evaluation and Assurance	1-3
I SY E/COMP SCI 723	Dynamic Programming and Associated Topics	3
I SY E/M H R 729	Behavioral Analysis of Management Decision Making	3
I SY E 816	Special Topics in Systems Design	1-3
I SY E/PSYCH 854	Special Topics in Organization Design	1-3
ED PSYCH 711	Current Topics in Educational Psychology	1-3
ED PSYCH 862	Multivariate Analysis	3
PSYCH 610	Statistical Analysis of Psychological Experiments	3
PSYCH 710	Design and Analysis of Psychological Experiments	3
STAT 333	Applied Regression Analysis	3
STAT/M E 424	Statistical Experimental Design	3
STAT/F&W ECOL/HORT 571	Statistical Methods for Bioscience I	4
STAT/B M I 641	Statistical Methods for Clinical Trials	3
STAT 701	Applied Time Series Analysis, Forecasting and Control I	3
NURSING 761	Health Program Planning, Evaluation, and Quality Improvement	3
POP HLTH/SOC 797	Introduction to Epidemiology	3
POP HLTH/I SY E 875	Cost Effectiveness Analysis in Health and Healthcare	3
POP HLTH 876	Measuring Health Outcomes	3
OTM 753	Healthcare Operations Management	3
B M I/COMP SCI 576	Introduction to Bioinformatics	3
B M I 773	Clinical Research Informatics	3
B M I/COMP SCI 776	Advanced Bioinformatics	3

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Human Factors and Ergonomics Research Area ¹

Code	Title	Credits
I SY E 552	Human Factors Engineering Design and Evaluation	3
I SY E 555	Human Performance and Accident Causation	3

I SY E 556	Occupational Safety and Health Engineering	3
I SY E/MED PHYS 559	Patient Safety and Error Reduction in Healthcare	2
I SY E/B M E 564	Occupational Ergonomics and Biomechanics	3
I SY E 610	Design of Program Evaluation Systems	3
I SY E/PSYCH 652	Sociotechnical Systems	3
I SY E/PSYCH 653	Organization and Job Design	3
I SY E/B M E 662	Design and Human Disability and Aging	3
I SY E 699	Advanced Independent Study	1-5
I SY E/PSYCH 854	Special Topics in Organization Design	1-3
I SY E/PSYCH 859	Special Topics in Human Factors Engineering	1-3
I SY E 961	Graduate Seminar in Industrial Engineering	1-3
CIV ENGR 679	Special Topics in Transportation and City Planning	3

Various courses count as "Tools and Methods." The Human Factors and Ergonomics faculty group updates the list of "Tools and Methods" courses and advisors decide which set of courses are appropriate for each student. The following are categories of "Tools and Methods": Research Methods, Statistics, Qualitative Research, Biomechanics Methods, and Psychology. Students can work with their faculty advisor for non-I SY E course work.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Manufacturing and Production Systems Research Area ¹

Code	Title	Credits
I SY E 415	Introduction to Manufacturing Systems, Design and Analysis	3
I SY E/COMP SCI/MATH 425	Introduction to Combinatorial Optimization	3
I SY E/M E 510	Facilities Planning	3
I SY E/M E 512	Inspection, Quality Control and Reliability	3
I SY E 515	Engineering Management of Continuous Process Improvement	3
I SY E 516	Introduction to Decision Analysis	3
I SY E/COMP SCI/E C E 524	Introduction to Optimization	3
I SY E/COMP SCI/MATH/STAT 525	Linear Programming Methods	3
I SY E 575	Introduction to Quality Engineering	3
I SY E 605	Computer Integrated Manufacturing	3
I SY E 612	Information Sensing and Analysis for Manufacturing Processes	3
I SY E 615	Production Systems Control	3
I SY E 620	Simulation Modeling and Analysis	3

ISYE 624	Stochastic Modeling Techniques	3
ISYE/MATH/OTM/ STAT 632	Introduction to Stochastic Processes	3
ISYE/M E 641	Design and Analysis of Manufacturing Systems	3
ISYE/M E 643	Performance Analysis of Manufacturing Systems	3
ISYE 645	Engineering Models for Supply Chains	3
ISYE/INFO SYS/ OTM 671	E-Business: Technologies, Strategies and Applications	3
STAT/M E 424	Statistical Experimental Design	3

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Quality Engineering Research Area ¹

Code	Title	Credits
ISYE 412	Fundamentals of Industrial Data Analytics	3
ISYE 417	Health Systems Engineering	3
ISYE/M E 512	Inspection, Quality Control and Reliability	3
ISYE/M E 513	Analysis of Capital Investments	3
ISYE 515	Engineering Management of Continuous Process Improvement	3
ISYE 520	Quality Assurance Systems	3
ISYE 575	Introduction to Quality Engineering	3
ISYE 601	Special Topics in Industrial Engineering	1-3
ISYE 610	Design of Program Evaluation Systems	3
ISYE 612	Information Sensing and Analysis for Manufacturing Processes	3
ISYE 620	Simulation Modeling and Analysis	3
ISYE/M E 641	Design and Analysis of Manufacturing Systems	3
ISYE/PSYCH 652	Sociotechnical Systems	3
ISYE/PSYCH 653	Organization and Job Design	3
ISYE/PSYCH 854	Special Topics in Organization Design	1-3
M H R 700	Organizational Behavior	3
OTM 770	Sustainable Approaches to System Improvement	4
OTM 758	Managing Technological and Organizational Change	3
STAT 333	Applied Regression Analysis	3
STAT 349	Introduction to Time Series	3
STAT 411	An Introduction to Sample Survey Theory and Methods	3
STAT 421	Applied Categorical Data Analysis	3
STAT 701	Applied Time Series Analysis, Forecasting and Control I	3
STAT/MATH 803	Experimental Design I	3

STAT 849	Theory and Application of Regression and Analysis of Variance I	3
ED PSYCH 862	Multivariate Analysis	3

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (https://www.engr.wisc.edu/app/uploads/2016/02/ISYE_New_Grad_Handbook-4.pdf) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

Not allowed for graduate residence credit requirement but allowed for graduate degree credit requirement and graduate coursework (50%) requirement. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW-Madison Undergraduate

Not allowed for graduate residence credit requirement for master's thesis option or the Ph.D. track but allowed up to 6 credits numbered 300 level or above toward the graduate degree credit requirement for master's course option tracks but not toward the 50% graduate coursework except for 700 level or above courses. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW-Madison University Special

Allowed up to 15 credits numbered 300 or above toward graduate residence credit requirement and graduate degree credit requirement. If the courses were numbered 700 or above they may count toward the minimum graduate coursework (50%) requirement. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

PROBATION

Students who are admitted with deficiencies but do not complete these courses within the first year are subject to probation.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis. When graduate students are admitted to the ISyE department, their advisor is either (a) the faculty person providing financial support, (b) the faculty who recommended their admission or (c) a faculty is assigned to them by the student services coordinator. Advisors are assigned according to a student's chose Focus Area.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

Changing advisors during the graduate program may be necessary due to changes in a student's interests or changes in the funding sources for their support. Students should discuss an advisor change with the faculty in their interest area and request a change of advisor with the ISyE Student Services in Room 3182 in Mechanical Engineering Building.

Ph.D. Committee

A committee (<https://grad.wisc.edu/acadpolicy/?policy=committees>) often accomplishes advising for the students in the early stages of their studies. Attainment of a Ph.D. degree requires the preparation of a thesis on a research topic selected by the student and their advisor. Once a research project is selected, the student must choose his or her thesis committee. The thesis committee for the ISyE Ph.D. graduate program shall consist of at least five members (all are readers), including: the committee chair (the student's primary advisor). The committee chair must be an ISyE faculty. Emeritus faculty cannot serve as the committee chair. Four other graduate faculty members or former UW–Madison graduate faculty members up to one year after resignation or retirement. At least one of the members of the committee must be from outside the Department of Industrial and Systems Engineering. The fifth member of the committee, as well as any additional members, may be from any of the following categories: graduate faculty, faculty from a department without a graduate program, academic staff (including emeritus faculty), visiting faculty, faculty from other institutions, scientists, research associates, and other individuals deemed qualified by the executive committee (or its equivalent).

In addition to the Graduate School policies, two faculty members must be from ISyE.

CREDITS PER TERM ALLOWED

12 credits

TIME CONSTRAINTS

The qualifying examination requirement must be satisfied by the end of the seventh semester of enrollment after earning the M.S. in Industrial Engineering or its equivalent from any institution.

The preliminary exam must be taken within five years after the time of passing the qualifying exam.

The Ph.D. defense must be completed within **five years** after passing the preliminary examination.

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

n/a

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PROGRAM RESOURCES

THE INDIVIDUAL DEVELOPMENT PLAN ([HTTPS://GRAD.WISC.EDU/PD/IDP](https://grad.wisc.edu/pd/idp))

An Individual Development Plan helps with self-assessment, planning, and communication:

- An IDP can help you communicate your professional development and career planning needs and intentions to others including your mentor, which can lead to helpful advice and resources.
- You can use the IDP to make sure you and your mentor's expectations are clearly outlined and in agreement so that there are no big surprises, particularly at the end of your training.
- The current job market is challenging and research has shown that individuals who perform structured career planning achieve greater career success and satisfaction.

The onus to engage in the IDP process is on you – although your mentor, PI, or others may encourage and support you in doing so. The IDP itself remains private to you, and you choose which parts to share with which mentors. Through the IDP process, you may decide to identify various mentors to whom you can go for expertise and advice.

ENGINEERING CAREER SERVICES ([HTTPS://ECS.WISC.EDU](https://ecs.wisc.edu))

Julie Rae, Assistant Director for Graduate Student Career Services

GRADUATE students in all Engineering programs

- Resumes & Cover Letters <https://ecs.wisc.edu/students/resumes-and-cover-letters/>
- Job Search Strategies
- Job Offers & Negotiation <https://ecs.wisc.edu/students/offers-and-negotiation/>
- CPT for Graduate Students <https://ecs.wisc.edu/students/co-op-and-internship/>
- Student appointments: Schedule Here (<http://go.wisc.edu/ecs-grad-appt>)

Employer Recruitment List for Industrial Engineering Students: <https://ecs.wiscweb.wisc.edu/wp-content/uploads/sites/86/2017/03/IE-Employer-Recruitment-List.pdf>.

UW WRITING CENTER ([HTTP://WRITING.WISC.EDU](http://writing.wisc.edu))

Location: 6171 Helen C. White Hall

Tel: (608) 263-1992

The UW Writing Center provides free of charge face-to-face and online consultations that focus on a number of different writing scenarios (i.e. drafts of course papers, resumes, reports, application essays, cover letters, theses, etc). Writing Center instructors will not edit or proofread papers. Instead, their goal is to teach students to edit and proofread on their own in order to become a better, more confident writer.

LEARNING OUTCOMES

1. Articulates research problems, potentials, and limits with respect to theory, knowledge, or practice within industrial and systems engineering.
2. Formulates ideas, concepts, designs, and/or techniques beyond the current boundaries of knowledge within the industrial and systems engineering.
3. Creates research, scholarship, or performance that makes a substantive contribution to the industrial and systems engineering field.
4. Demonstrates breadth within their learning experiences.
5. Advances contributions of the field of industrial and systems engineering to society.
6. Communicates complex ideas in a clear and understandable manner to variety of audience.
7. Fosters ethical and professional conduct.

PATIENT SAFETY, GRADUATE/PROFESSIONAL CERTIFICATE

It has been estimated that at least 98,000 US adults die each year from medical errors; fewer people die from breast cancer, AIDS, or auto accidents. The costs associated with preventable medical errors exceed \$17 billion. To help train scientists and practitioners to effectively reduce the likelihood of preventable patient harm, the University of Wisconsin–Madison (<http://www.wisc.edu>) offers the Graduate Certificate in Patient Safety. The certificate is supported by the School of Medicine and Public Health (<http://www.med.wisc.edu>), School of Nursing (<http://www.son.wisc.edu>), School of Pharmacy (<http://www.pharmacy.wisc.edu>), and College of Engineering (<http://www.engr.wisc.edu>).

Objective: To increase student knowledge about how systems engineering and systems design can be used to identify, analyze and solve patient safety research and applied problems.

The graduate/professional certificate in patient safety is an interdisciplinary effort between the Department of Industrial and Systems Engineering, School of Nursing, School of Pharmacy, Department of Medical Physics, and Department of Population Health Sciences. Patient safety is of national and international importance and there is a shortage

of people with expertise in the design of safe health care systems and technologies that can improve patient safety. Such expertise is important to physicians, nurses, pharmacists, and other health care professionals, and engineers. The certificate in patient safety provides students with knowledge and skills in an array of topics necessary for the identification, analysis, and control of patient safety programs.

ADMISSIONS

PREREQUISITES

1. Accepted into a graduate or professional degree program
2. Full- or part-time graduate student status
3. One of the following three:
 4. A degree in a health-care-related field (that is, nursing, medicine, pharmacy, population health, public health, health care administration, health systems management, health care management), or
 5. Work experience in health care delivery, or
 6. Have taken a course in health care delivery such as I SY E 417 Health Systems Engineering, NURSING/S&A PHM/SOC WORK 105 Health Care Systems: Interdisciplinary Approach, LAW 940 Law and Contemporary Problems, POP HLTH 796 Introduction to Health Services Research.

The reason for the three options for prerequisites is to allow people with and without health care backgrounds to obtain the certificate.

IMPORTANT: students must choose one of the core faculty members listed below as an advisor. The advisor will determine if a student has met the prerequisite requirement. Advisors must sign the section of the curriculum form titled "Patient Safety Certificate Application and Completion" in order for students to enroll.

HOW TO OBTAIN THE PATIENT SAFETY CERTIFICATE

- To complete the Patient Safety Certificate application, please complete a Patient Safety Declaration Form. (https://docs.google.com/forms/d/e/1FAIpQLSfSbOcd8o02yhcuBqfXMB6GR6GdRXImuUqkrtbUcHFNF0Gf_Q/viewform)
- The semester you plan to graduate, please complete the Patient Safety Certificate Completion Form (<https://www.engr.wisc.edu/app/uploads/2016/02/PatientSafetyCompletionFormCompletionFinal.pdf>) and obtain your advisor's signature. https://docs.google.com/forms/d/e/1FAIpQLSfOPrQHzD9xIFnVXFecqTE8Nk_aLB2R2pkxBExaQdAdV_sHeA/formResponse

Any questions about this process can be directed to prpeter@wisc.edu. (prpeter@wisc.edu)

EXIT REQUIREMENTS

- GPA of 3.2 or above for the Patient Safety Certificate Curriculum courses (mandatory and elective combined).
- Completion of all mandatory and elective courses.

REQUIREMENTS

Code	Title	Credits
I SY E 699 or I SY E 961	Advanced Independent Study ¹ Graduate Seminar in Industrial Engineering	1
PHARMACY/ I SY E 608	Safety and Quality in the Medication Use System	3
I SY E/ MED PHYS 559	Patient Safety and Error Reduction in Healthcare	2
I SY E/ POP HLTH 703	Quality of Health Care: Evaluation and Assurance	3
One of the following options:		3
I SY E 555	Human Performance and Accident Causation	
I SY E/PSYCH 652	Sociotechnical Systems	
I SY E/PSYCH 653	Organization and Job Design	
<i>Elective</i>		3
Total Credits		15

¹ To meet this requirement, students will be expected to work on an actual patient safety project with a health care delivery organization (in patient, out-patient, long-term care, home care, etc.) in which they will be involved in the design, measurement analysis, implementation and/ or evaluation of a patient safety project. All students who complete PHARMACY/I SY E 608 Safety and Quality in the Medication Use System below will automatically meet this requirement. An equivalent 1-credit Patient Safety Project may also be taken in lieu of either of these courses.

PEOPLE

ADVISORS

Students must choose one of the core faculty members listed below as an advisor:

- Pascale Carayon (http://www.engr.wisc.edu/ie/faculty/carayon_pascale.html)
Industrial & Systems Engineering
- Michelle Chui (<http://www.pharmacy.wisc.edu/chuis-group/dr-michelle-chui>)
Pharmacy
- David Mott (<http://apps.pharmacy.wisc.edu/sopdir/55>)
Pharmacy
- Maureen Smith (<http://www.pophealth.wisc.edu/faculty/smith>)
Population Health Sciences
- Bruce Thomadsen (<http://www.medphysics.wisc.edu/directory/thomadsen.php>)
Medical Physics
- Doug Wiegmann (http://www.engr.wisc.edu/ie/faculty/wiegmann_douglas.html)
Industrial & Systems Engineering

INFORMATION SCHOOL

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Library and Information Studies, Doctoral Minor (p. 794)
- Library and Information Studies, M.A. (p. 795)
- Library and Information Studies, Ph.D. (p. 805)
- Library and Information Studies, Specialist Certificate (p. 809)
- Print Culture History, Doctoral Minor (p. 810)

PEOPLE

Faculty: Professors Eschenfelder (Director), Downey, Kim, Whitmire; Associate Professors Rubel, Arnott-Smith, Willett; Assistant Professors Royston, Senchyne

For a complete faculty/staff directory see <https://ischool.wisc.edu/>

LIBRARY AND INFORMATION STUDIES, DOCTORAL MINOR

REQUIREMENTS

The doctoral minor in Library and Information Studies is a flexible and interdisciplinary program functioning under the University of Wisconsin–Madison Graduate School’s Option A rules (<https://grad.wisc.edu/acadpolicy/?policy=minors>). Students will need to fill out a Ph.D. minor form available from the iSchool main office. As part of this, they will need to identify, and obtain the signature of, a minor advisor from the iSchool faculty who will serve to assist with course selection and other issues. To begin the process of enrolling in the Library and Information Studies Option A minor, please contact an iSchool faculty member via email. Only Option A minors are given preferred enrollment status. Students may select courses from both the master’s and Ph.D. level from within iSchool for their doctoral minor.

POPULAR ISCHOOL PHD MINOR CONCENTRATIONS ¹ INCLUDE:

- information/data policy and ethics
- user experience/interaction design and information technologies
- digital youth
- digital archiving

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

PEOPLE

Faculty: Professors Eschenfelder (Director), Downey, Kim, Whitmire; Associate Professors Rubel, Arnott-Smith, Willett; Assistant Professors Royston, Senchyne

For a complete faculty/staff directory see <https://ischool.wisc.edu/>

LIBRARY AND INFORMATION STUDIES, M.A.

The master's degree at the Information School (iSchool) prepares graduates to develop, provide and assess information services that create, collect, organize, store, analyze, find, distribute, and use information in a diverse, technological, and global society. The program prepares information professionals to work in five broad, overlapping areas of the information professions.

Librarianship: Graduates obtain employment in college and university librarianship, public librarianship, youth and young adult librarianship, electronic collections management, science and health librarianship, research data management, and school library media centers.

Archives in a Digital Age (on-campus program only): Graduates obtain employment in digital asset management, digital preservation and curation, digital archives, corporate archives, government archives, special collections, and tribal libraries archives and museums.

Data/Information Management and Analytics : Graduates obtain employment in information analysis and visualization, knowledge management, prospect research, systems analysis, digital asset management, data and information governance, records management and compliance, research data management and project management.

Organization of Information: Graduates obtain employment in metadata management, taxonomy and ontology development and implementation, digital asset management, cataloging, XML and linked data, and database management.

User Experience Design and Information Technologies: Graduates obtain employment in user experience design, interaction design, systems analysis and project management, IT training, educational technology support, digital asset management and curation, content management, and database development and management.

The master's degree requires 39 credit hours. Full-time students generally complete the program in two academic years with summer work; part-time students complete it in three to four years. Students gain hands-on experience as part of their degree through the school's required 3-credit field practicum. Students may choose practicum settings based on their career goals.

NAMED OPTIONS

Students interested in the Master of Arts in Library and Information Studies should refer to one of the named options:

- Campus Delivered Program (p. 798)
- Distance Delivered Program (p. 802)

OPTIONAL SPECIALIZATIONS

The Information School hosts several specializations that require specific coursework from other departments or other requirements.

Business School Graduate/Professional Certificate in Strategic Innovation:

The Information School offers a specialization in information innovation and organizational change in conjunction with the School of Business graduate/professional certificate (p. 920) which can be completed as part of the school's M.A. degree (on-campus program only).

Certificate in Leadership: iSchool students can earn the UW–Madison Certificate in Leadership (<https://cfl.wisc.edu/leadership-certificate>) as part of their Information School M.A. degree (on-campus and online programs).

Double degrees: The iSchool offers double degrees with the UW Law School, the School of Music, and the Department of Art History. These require separate admissions and additional coursework. (on-campus program only)

School Library Media Services and Administration: The equivalent to a teaching license is required for school library media certification in the state of Wisconsin. This can be obtained before or after completing the School of Information MA; it is not required for admission. For licensed classroom teachers with master's degrees, web-based school library media certification courses are available through the UW System School Library Education Consortium (UWSSLEC).

Online students (distance degree option) should note: Specialized courses in art, music and law, as well as courses offered outside the Information School that may be part of concentrations, specializations or double degrees, are generally not available online. For a distance student with academic background in one of these areas, combining the general Information School degree with the specialized background may be the best preparation.

The Information School master's program is accredited by the American Library Association, recognized by the Wisconsin Division for Libraries, Technology, and Community Learning for certification of public librarians, and recognized by the state's Department of Public Instruction for preparation of school library media specialists.

ABOUT THE INFORMATION SCHOOL PROGRAMS

The UW-Madison Information School, "the iSchool," is a professional school offering several degrees and non-credit education that prepare students for careers in the information professions:

- The iSchool M.A. degree (<https://ischool.wisc.edu/current-students/masters-degree-program>) is a professional masters that offers five concentration areas: Librarianship, Archives in a Digital Age, Data/Information Management and Analytics, User Experience Design and Information Technologies, Organization of Information.
- The Capstone Certificate in User Experience Design (<http://hci.wisc.edu/madux>) is an educational credential aimed at working adults who seek further education to advance their careers or move into new fields without the commitment of a full masters degree. See the Capstone Certificate Guide page here (<http://guide.wisc.edu/nondegree/capstone/user-experience-design-capstone-certificate>).
- The Ph.D. degree (<https://ischool.wisc.edu/programs/phd-program>) provides advanced academic preparation for those wishing

to pursue careers in academia, industrial research or policy making. See the Ph.D. Guide page here (p. 805).

- Undergraduate Digital Studies certificate (<https://ischool.wisc.edu/programs/undergraduatedigital-studies>) provides undergraduate coursework in information technologies and society and information management. See the Undergraduate Certificate Guide page here (<http://guide.wisc.edu/undergraduate/letters-science/communication-arts/digital-studies-certificate>).
- The iSchool offers non-credit continuing education short courses (<https://ischool.wisc.edu/continuing-education>) that help information professionals stay up to date.

COMMUNITY

The Information School at UW-Madison is well known for its public-good, community-engagement orientation (<https://ischool.wisc.edu/slis/community-engagement>). It is home to student organizations that shepherd information-justice projects including the Jail Library Group, the Tribal Library Archives and Museums Group, and the Allied Drive Literacy Project. Student groups at the iSchool (<https://ischool.wisc.edu/current-students/slis-student-organizations>) are very active and organize and sponsor events.

The iSchool Library, (<https://www.library.wisc.edu/ischool>) whose windows overlook the shores of Lake Mendota and the oak trees of Muir Knoll, is a very popular campus space for study, group work, social events and relaxation. The Information School Library is also home to:

- RADD (<http://radd.dsalo.info>) "Recovering Analog and Digital Data" a digital data recovery workshop that provides fee-for-service recovery of data from a wide variety of media types.
- The Text Technologies Press: (<http://www.wiscprintdigital.org/projects/text-technologies>) typography and letterpress printing equipment for teaching book history, book arts, design, art, and making.

RESEARCH & SCHOLARSHIP

The Information School faculty are known for scholarly work in the areas of:

- data and information policy and ethics,
- user behaviors and literacies,
- print culture,
- library and information technology history,
- electronic publishing,
- information and communications technologies (ICT) and development, and transnational diaspora use of ICT,
- the social aspects of ICT.

Faculty have made valuable scholarly contributions in the areas of medical information retrieval systems, online search behavior and search effectiveness, publisher e-journal licensing practices, information technology history, print culture and library history, information ethics and policy, and youth and new media. For more information see the iSchool Research Overview Page. (<https://ischool.wisc.edu/faculty-staff-directory/research>)

Faculty and staff are widely involved in different research groups on campus. For example, the iSchool is home to the Center for the History of Print and Digital Culture (<http://www.wiscprintdigital.org>), a research center focused on authorship, reading, publication and distribution of print and digital materials. The Information School faculty members

are involved with the Holtz Center for Science and Technology Studies, the Digital Humanities Research Network, the HCI+Design Group, the Wisconsin Institute for Discovery, and the Center for Financial Security.

ADMISSIONS

Students apply to the Master of Arts in Library and Information Studies through one of the named options:

- Campus Delivered Program (p. 798)
- Distance Delivered Program (p. 802)

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

Note: The major is currently non-admitting. Students are admitted through one of the named options (sub-majors) below (p. 797).

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	Yes	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the

advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement	39 credits
Minimum Residence Credit Requirement	33 credits
Minimum Graduate Coursework Requirement	A minimum of 30 credits must be taken from graduate-level Information School M.A. coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle).
	The remaining 9 credits of coursework must be 300 level or above and may not include iSchool undergraduate coursework.
Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	Within the student's total program, one grade of BC or C is allowable in either a required or elective course if it is balanced by a grade of A or AB earned prior to or concurrently with the unsatisfactory grade. A second grade of BC or C or any grade of D or F will normally result in the student being dropped from the program.
Assessments and Examinations	Candidates must complete a minimum of a 120-hour practicum, and must complete a portfolio.
Language Requirements	No language requirements.

REQUIRED COURSES

Select a Named Option (p. 797) for courses required.

NAMED OPTIONS (SUB-MAJORS)

A named option is a formally documented sub-major within an academic major program. Named options appear on the transcript with degree conferral. Students pursuing the Master of Arts in Library and Information Studies must select one of the following named options:

- Library and Information Studies: Campus Delivered Program, M.A. (p. 798)
- Library and Information Studies: Distance Delivered Program, M.A. (p. 802)

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://ischool.wisc.edu/current-students/ma-requirements-overview/ma-program-planning-guides>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

Students may count up to 6 credits of approved graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW-Madison Undergraduate

With approval, UW-Madison undergraduates accepted into the Information School program may count up to 7 graduate iSchool credits (LIS 400 and above) toward their M.A. degree.

UW-Madison University Special

Students are allowed to count up to 6 approved credits of coursework numbered 400 or above taken as a UW-Madison Special student. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

A student may be placed on probation or suspended from the Graduate School for low grades or for failing to resolve incompletes in a timely fashion. In special cases the Graduate School permits students who do not meet these minimum standards to continue on probation upon recommendation and support of their advisor. See iSchool Student Handbook. (<https://ischool.wisc.edu/current-students/ma-requirements-overview/ma-program-planning-guides>)

ADVISOR / COMMITTEE

All continuing students are required to meet with their advisor prior to registering for each semester in order to remove registration holds and ensure timely progress towards degree completion. Students may switch advisors at any time by completing a change of advisor form.

CREDITS PER TERM ALLOWED

See one of the named option pages for the policy information: Campus Delivered Program (p. 801) or Distance Delivered Program (p. 805).

TIME CONSTRAINTS

The maximum period for completion of the M.A. (under special circumstances) is seven calendar years. Contact the department for more information.

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Online program students are not permitted to accept teaching assistantships, project assistantships, research assistantships, or other appointments that would result in a tuition waiver. Also, students in this program cannot enroll in other graduate programs nor take courses outside the prescribed curriculum.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Demonstrate understanding of societal, legal, policy or ethical information issues.
2. Apply principles of information organization.
3. Apply appropriate research methodologies for inquiry or decision making.
4. Demonstrate understanding of professional competencies important for management of information organizations.
5. Demonstrate competency with information technologies important to the information professions.
6. Apply theory to professional practice.
7. Demonstrate understanding of issues surrounding marginalized communities and information.

PEOPLE

Faculty: Professors Eschenfelder (Director), Downey, Kim, Whitmire; Associate Professors Rubel, Arnott-Smith, Willett; Assistant Professors Royston, Senchyne

For a complete faculty/staff directory see <https://ischool.wisc.edu/>

ACCREDITATION

Accreditation

The MA in Library and Information Studies program at the University of Wisconsin-Madison is accredited by the American Library Association Committee on Accreditation (<http://www.ala.org/aboutala/offices/accreditation>), with the status of Continued Accreditation. The next comprehensive review visit scheduled for fall 2021.

LIBRARY AND INFORMATION STUDIES: CAMPUS DELIVERED PROGRAM, M.A.

This is a named option within the Library and Information Studies M.A. (p. 795)

The master's degree at the Information School (iSchool) prepares graduates to develop, provide and assess information services that create, collect, organize, store, analyze, find, distribute, and use information in a diverse, technological, and global society. The program prepares information professionals to work in five broad, overlapping areas of the information professions.

Librarianship: Graduates obtain employment in college and university librarianship, public librarianship, youth and young adult librarianship, electronic collections management, science and health librarianship, research data management, and school library media centers.

Archives in a Digital Age (on-campus program only): Graduates obtain employment in digital asset management, digital preservation and curation, digital archives, corporate archives, government archives, special collections, and tribal libraries archives and museums.

Data/Information Management and Analytics : Graduates obtain employment in information analysis and visualization, knowledge management, prospect research, systems analysis, digital asset management, data and information governance, records management and compliance, research data management and project management.

Organization of Information: Graduates obtain employment in metadata management, taxonomy and ontology development and implementation, digital asset management, cataloging, XML and linked data, and database management.

User Experience Design and Information Technologies: Graduates obtain employment in user experience design, interaction design, systems analysis and project management, IT training, educational technology support, digital asset management and curation, content management, and database development and management.

The master's degree requires 39 credit hours. Full-time students generally complete the program in two academic years with summer work; part-time students complete it in three to four years. Students gain hands-on experience as part of their degree through the school's required 3-credit field practicum. Students may choose practicum settings based on their career goals.

NAMED OPTIONS

Students interested in the Master of Arts in Library and Information Studies should refer to one of the named options:

- Campus Delivered Program (p. 798)
- Distance Delivered Program (p. 802)

OPTIONAL SPECIALIZATIONS

The Information School hosts several specializations that require specific coursework from other departments or other requirements.

Business School Graduate/Professional Certificate in Strategic

Innovation: The Information School offers a specialization in information innovation and organizational change in conjunction with the School of Business graduate/professional certificate (p. 920) which can be completed as part of the school's M.A. degree (on-campus program only).

Certificate in Leadership: iSchool students can earn the UW–Madison Certificate in Leadership (<https://cfli.wisc.edu/leadership-certificate>) as part of their Information School M.A. degree (on-campus and online programs).

Double degrees: The iSchool offers double degrees with the UW Law School, the School of Music, and the Department of Art History. These require separate admissions and additional coursework. (on-campus program only)

School Library Media Services and Administration: The equivalent to a teaching license is required for school library media certification in the state of Wisconsin. This can be obtained before or after completing the School of Information MA; it is not required for admission. For licensed classroom teachers with master's degrees, web-based school library media certification courses are available through the UW System School Library Education Consortium (UWSSLEC).

Online students (distance degree option) should note: Specialized courses in art, music and law, as well as courses offered outside the Information School that may be part of concentrations, specializations or double degrees, are generally not available online. For a distance student with academic background in one of these areas, combining the general Information School degree with the specialized background may be the best preparation.

The Information School master's program is accredited by the American Library Association, recognized by the Wisconsin Division for Libraries, Technology, and Community Learning for certification of public librarians, and recognized by the state's Department of Public Instruction for preparation of school library media specialists.

ABOUT THE INFORMATION SCHOOL PROGRAMS

The UW-Madison Information School, "the iSchool," is a professional school offering several degrees and non -credit education that prepare students for careers in the information professions:

- The iSchool M.A. degree (<https://ischool.wisc.edu/current-students/masters-degree-program>) is a professional masters that offers five concentration areas: Librarianship, Archives in a Digital Age, Data/Information Management and Analytics, User Experience Design and Information Technologies, Organization of Information.
- The Capstone Certificate in User Experience Design (<http://hci.wisc.edu/madux>) is an educational credential aimed at working adults who seek further education to advance their careers or move into new fields without the commitment of a full masters degree. See the Capstone Certificate Guide page here (<http://guide.wisc.edu/nondegree/capstone/user-experience-design-capstone-certificate>).
- The Ph.D. degree (<https://ischool.wisc.edu/programs/phd-program>) provides advanced academic preparation for those wishing to pursue careers in academia, industrial research or policy making. See the Ph.D. Guide page here (p. 805).
- Undergraduate Digital Studies certificate (<https://ischool.wisc.edu/programs/undergraduatedigital-studies>) provides undergraduate coursework in information technologies and society and information

management. See the Undergraduate Certificate Guide page here (<http://guide.wisc.edu/undergraduate/letters-science/communication-arts/digital-studies-certificate>).

- The iSchool offers non-credit continuing education short courses (<https://ischool.wisc.edu/continuing-education>) that help information professionals stay up to date.

COMMUNITY

The Information School at UW-Madison is well known for its public-good, community-engagement orientation (<https://ischool.wisc.edu/slisc/community-engagement>). It is home to student organizations that shepherd information-justice projects including the Jail Library Group, the Tribal Library Archives and Museums Group, and the Allied Drive Literacy Project. Student groups at the iSchool (<https://ischool.wisc.edu/current-students/slisc-student-organizations>) are very active and organize and sponsor events.

The iSchool Library, (<https://www.library.wisc.edu/ischool>) whose windows overlook the shores of Lake Mendota and the oak trees of Muir Knoll, is a very popular campus space for study, group work, social events and relaxation. The Information School Library is also home to:

- RADD (<http://radd.dsalo.info>) "Recovering Analog and Digital Data" a digital data recovery workshop that provides fee-for-service recovery of data from a wide variety of media types.
- The Text Technologies Press: (<http://www.wiscprintdigital.org/projects/text-technologies>) typography and letterpress printing equipment for teaching book history, book arts, design, art, and making.

RESEARCH & SCHOLARSHIP

The Information School faculty are known for scholarly work in the areas of:

- data and information policy and ethics,
- user behaviors and literacies,
- print culture,
- library and information technology history,
- electronic publishing,
- information and communications technologies (ICT) and development, and transnational diaspora use of ICT,
- the social aspects of ICT.

Faculty have made valuable scholarly contributions in the areas of medical information retrieval systems, online search behavior and search effectiveness, publisher e-journal licensing practices, information technology history, print culture and library history, information ethics and policy, and youth and new media. For more information see the iSchool Research Overview Page. (<https://ischool.wisc.edu/faculty-staff-directory/research>)

Faculty and staff are widely involved in different research groups on campus. For example, the iSchool is home to the Center for the History of Print and Digital Culture (<http://www.wiscprintdigital.org>), a research center focused on authorship, reading, publication and distribution of print and digital materials. The Information School faculty members are involved with the Holtz Center for Science and Technology Studies, the Digital Humanities Research Network, the HCI+Design Group, the Wisconsin Institute for Discovery, and the Center for Financial Security.

ADMISSIONS

The school admits students to its on campus and online master's programs once a year, for fall semester. Although applications are accepted until **February 1**, priority consideration, including consideration for departmental scholarships, is given to applications received by **December 15**. After February 1, interested applicants should contact the department to ask if a late application can still be considered.

For more information on the Information School MA program, including detailed admissions instructions, please see this link (<https://ischool.wisc.edu/current-students/masters-degree-program>).

The Graduate School requires a bachelor's degree from a regionally accredited U.S. institution, or a comparable degree from an international institution. A minimum undergraduate grade-point average (GPA) of 3.00 (on a 4.00 scale) in the last 60 earned credit hours is required.

Application evaluation criteria include academic abilities, professional promise, leadership and community engagement. An undergraduate program that includes breadth in liberal arts and sciences is required. Any major is acceptable. Prior work experience related to information professions is useful, but is not required. The GRE is not required.

International students: TOEFL or equivalent scores are required if English is not the native language, or if the undergraduate instruction was not in English. The Information School follows UW Graduate School rules regarding English proficiency exams. See the Graduate School website (<http://grad.wisc.edu>) for updated information. For more information about admission to the master's program, see iSchool MA Admissions. (<https://ischool.wisc.edu/current-students/masters-degree-program>)

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 39 credits

Minimum Residence Credit Requirement 33 credits

Minimum Graduate Coursework Requirement A minimum of 30 credits must be taken from graduate-level Information School M.A. coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle>).

The remaining 9 credits of coursework must be 300 level or above and may not include iSchool undergraduate coursework.

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements Within the student's total program, one grade of BC or C is allowable in either a required or elective course if it is balanced by a grade of A or AB earned prior to or concurrently with the unsatisfactory grade. A second grade of BC or C or any grade of D or F will normally result in the student being dropped from the program.

Assessments and Examinations Candidates must complete a minimum of a 120-hour practicum, and must complete a portfolio.

Language Requirements No language requirements.

REQUIRED COURSES

The program has three courses that all students must take. These courses are foundational to the field and provide prerequisite knowledge for more advanced courses.

Code	Title	Credits
Required Courses		
L I S 601	Information: Perspectives and Contexts	3
L I S 602	Information: Organization and Search	3
L I S 603	Research and Assessment for Information Professionals	3
Management Courses		3
Choose at least 3 credits from the following:		
L I S 654	Information Services Management	
L I S 712	The Public Library	
L I S 732	Strategic Information Services	
Technology Courses		3
Choose at least 3 credits from the following:		
L I S 500	Code and Power	
L I S 644	Digital Tools, Trends and Debates	
L I S 646	Introduction to Info Architecture and Interaction Design for the Web	
L I S 668	Digital Curation and Collections	
L I S 751	Database Design for Information Professionals	
L I S 768	Digital Humanities Analytics	
Practicum		3
Most students fulfill the practicum requirement by taking:		
L I S/CURRIC 620	Field Project in Library and Information Agencies	
Electives		21
E-Portfolio		
Students may take up to 9 credits of electives outside of the iSchool. All non-LIS electives must be approved by the student's advisor.		
Total Credits		39

Students seeking school library media certification have additional required courses; for details, see <https://ischool.wisc.edu/programs/masters-degree-program/concentrations/librarianship/school-library-media-program/>.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the

degree program faculty. Policies set by the academic degree program can be found below.

NAMED OPTION-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://ischool.wisc.edu/current-students/ma-requirements-overview/ma-program-planning-guides>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

Students may count up to 6 credits of approved graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW-Madison Undergraduate

With approval, UW-Madison undergraduates accepted into the Information School program may count up to 7 graduate iSchool credits (LIS 400 and above) toward their M.A. degree.

UW-Madison University Special

Students are allowed to count up to 6 approved credits of coursework numbered 400 or above taken as a UW-Madison Special Student. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

A student may be placed on probation or suspended from the Graduate School for low grades or for failing to resolve incompletes in a timely fashion. In special cases the Graduate School permits students who do not meet these minimum standards to continue on probation upon recommendation and support of their advisor. See iSchool Student Handbook. (<https://ischool.wisc.edu/current-students/ma-requirements-overview/ma-program-planning-guides>)

ADVISOR / COMMITTEE

All continuing students are required to meet with their advisor prior to registering for each semester in order to remove registration holds and ensure timely progress towards degree completion. Students may switch advisors at any time by completing a change of advisor form.

CREDITS PER TERM ALLOWED

The iSchool recommends 9 credits per semester and a maximum of 4 credits per summer term. 8 to 12 credits in a regular semester is considered full time at the graduate level. Course load maximums are 12 credits in a regular semester, 8 credits in the summer term and 3 credits in the intersession.

TIME CONSTRAINTS

The maximum period for completion of the M.A. (under special circumstances) is seven calendar years. Contact the department for more information.

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements;

that coursework may not count toward Graduate School credit requirements.

OTHER

Online program students are not permitted to accept teaching assistantships, project assistantships, research assistantships, or other appointments that would result in a tuition waiver. Also, students in this program cannot enroll in other graduate programs nor take courses outside the prescribed curriculum.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PEOPLE

Faculty: Professors Eschenfelder (Director), Downey, Kim, Whitmire; Associate Professors Rubel, Arnott-Smith, Willett; Assistant Professors Royston, Senchyne

For a complete faculty/staff directory see <https://ischool.wisc.edu/>

LIBRARY AND INFORMATION STUDIES: DISTANCE DELIVERED PROGRAM, M.A.

This is a named option within the Library and Information Studies M.A. (p. 795)

The master's degree at the Information School (iSchool) prepares graduates to develop, provide and assess information services that create, collect, organize, store, analyze, find, distribute, and use information in a diverse, technological, and global society. The program prepares information professionals to work in five broad, overlapping areas of the information professions.

Librarianship: Graduates obtain employment in college and university librarianship, public librarianship, youth and young adult librarianship, electronic collections management, science and health librarianship, research data management, and school library media centers.

Archives in a Digital Age (on-campus program only): Graduates obtain employment in digital asset management, digital preservation and curation, digital archives, corporate archives, government archives, special collections, and tribal libraries archives and museums.

Data/Information Management and Analytics : Graduates obtain employment in information analysis and visualization, knowledge management, prospect research, systems analysis, digital asset management, data and information governance, records management and compliance, research data management and project management.

Organization of Information: Graduates obtain employment in metadata management, taxonomy and ontology development and implementation,

digital asset management, cataloging, XML and linked data, and database management.

User Experience Design and Information Technologies: Graduates obtain employment in user experience design, interaction design, systems analysis and project management, IT training, educational technology support, digital asset management and curation, content management, and database development and management.

The master's degree requires 39 credit hours. Full-time students generally complete the program in two academic years with summer work; part-time students complete it in three to four years. Students gain hands-on experience as part of their degree through the school's required 3-credit field practicum. Students may choose practicum settings based on their career goals.

NAMED OPTIONS

Students interested in the Master of Arts in Library and Information Studies should refer to one of the named options:

- Campus Delivered Program (p. 798)
- Distance Delivered Program (p. 802)

OPTIONAL SPECIALIZATIONS

The Information School hosts several specializations that require specific coursework from other departments or other requirements.

Business School Graduate/Professional Certificate in Strategic Innovation: The Information School offers a specialization in information innovation and organizational change in conjunction with the School of Business graduate/professional certificate (p. 920) which can be completed as part of the school's M.A. degree (on-campus program only).

Certificate in Leadership: iSchool students can earn the UW–Madison Certificate in Leadership (<https://cfli.wisc.edu/leadership-certificate>) as part of their Information School M.A. degree (on-campus and online programs).

Double degrees: The iSchool offers double degrees with the UW Law School, the School of Music, and the Department of Art History. These require separate admissions and additional coursework. (on-campus program only)

School Library Media Services and Administration: The equivalent to a teaching license is required for school library media certification in the state of Wisconsin. This can be obtained before or after completing the School of Information MA; it is not required for admission. For licensed classroom teachers with master's degrees, web-based school library media certification courses are available through the UW System School Library Education Consortium (UWSSLEC).

Online students (distance degree option) should note: Specialized courses in art, music and law, as well as courses offered outside the Information School that may be part of concentrations, specializations or double degrees, are generally not available online. For a distance student with academic background in one of these areas, combining the general Information School degree with the specialized background may be the best preparation.

The Information School master's program is accredited by the American Library Association, recognized by the Wisconsin Division for Libraries, Technology, and Community Learning for certification of public librarians,

and recognized by the state's Department of Public Instruction for preparation of school library media specialists.

ABOUT THE INFORMATION SCHOOL PROGRAMS

The UW-Madison Information School, "the iSchool," is a professional school offering several degrees and non-credit education that prepare students for careers in the information professions:

- The iSchool M.A. degree (<https://ischool.wisc.edu/current-students/masters-degree-program>) is a professional masters that offers five concentration areas: Librarianship, Archives in a Digital Age, Data/Information Management and Analytics, User Experience Design and Information Technologies, Organization of Information.
- The Capstone Certificate in User Experience Design (<http://hci.wisc.edu/madux>) is an educational credential aimed at working adults who seek further education to advance their careers or move into new fields without the commitment of a full masters degree. See the Capstone Certificate Guide page here (<http://guide.wisc.edu/nondegree/capstone/user-experience-design-capstone-certificate>).
- The Ph.D. degree (<https://ischool.wisc.edu/programs/phd-program>) provides advanced academic preparation for those wishing to pursue careers in academia, industrial research or policy making. See the Ph.D. Guide page here (p. 805).
- Undergraduate Digital Studies certificate (<https://ischool.wisc.edu/programs/undergraduatedigital-studies>) provides undergraduate coursework in information technologies and society and information management. See the Undergraduate Certificate Guide page here (<http://guide.wisc.edu/undergraduate/letters-science/communication-arts/digital-studies-certificate>).
- The iSchool offers non-credit continuing education short courses (<https://ischool.wisc.edu/continuing-education>) that help information professionals stay up to date.

COMMUNITY

The Information School at UW-Madison is well known for its public-good, community-engagement orientation (<https://ischool.wisc.edu/slis/community-engagement>). It is home to student organizations that shepherd information-justice projects including the Jail Library Group, the Tribal Library Archives and Museums Group, and the Allied Drive Literacy Project. Student groups at the iSchool (<https://ischool.wisc.edu/current-students/slis-student-organizations>) are very active and organize and sponsor events.

The iSchool Library, (<https://www.library.wisc.edu/ischool>) whose windows overlook the shores of Lake Mendota and the oak trees of Muir Knoll, is a very popular campus space for study, group work, social events and relaxation. The Information School Library is also home to:

- RADD (<http://radd.dsalo.info>) "Recovering Analog and Digital Data" a digital data recovery workshop that provides fee-for-service recovery of data from a wide variety of media types.
- The Text Technologies Press: (<http://www.wiscprintdigital.org/projects/text-technologies>) typography and letterpress printing equipment for teaching book history, book arts, design, art, and making.

RESEARCH & SCHOLARSHIP

The Information School faculty are known for scholarly work in the areas of:

- data and information policy and ethics,
- user behaviors and literacies,
- print culture,
- library and information technology history,
- electronic publishing,
- information and communications technologies (ICT) and development, and transnational diaspora use of ICT,
- the social aspects of ICT.

Faculty have made valuable scholarly contributions in the areas of medical information retrieval systems, online search behavior and search effectiveness, publisher e-journal licensing practices, information technology history, print culture and library history, information ethics and policy, and youth and new media. For more information see the iSchool Research Overview Page. (<https://ischool.wisc.edu/faculty-staff-directory/research>)

Faculty and staff are widely involved in different research groups on campus. For example, the iSchool is home to the Center for the History of Print and Digital Culture (<http://www.wiscprintdigital.org>), a research center focused on authorship, reading, publication and distribution of print and digital materials. The Information School faculty members are involved with the Holtz Center for Science and Technology Studies, the Digital Humanities Research Network, the HCI+Design Group, the Wisconsin Institute for Discovery, and the Center for Financial Security.

ADMISSIONS

The school admits students to its on campus and online master's programs once a year, for fall semester. Although applications are accepted until **February 1**, priority consideration, including consideration for departmental scholarships, is given to applications received by **December 15**. After February 1, interested applicants should contact the department to ask if a late application can still be considered.

Note that the online program is called the "distance degree option" in all admissions forms, and students from any geographical location (including Madison, Wisconsin) are welcome to apply. Online students cannot take face to face courses.

For more information on the Information School MA program, including detailed admissions instructions, please see this link (<https://ischool.wisc.edu/current-students/masters-degree-program>).

The Graduate School requires a bachelor's degree from a regionally accredited U.S. institution, or a comparable degree from an international institution. A minimum undergraduate grade-point average (GPA) of 3.00 (on a 4.00 scale) in the last 60 earned credit hours is required.

Application evaluation criteria include academic abilities, professional promise, leadership and community engagement. An undergraduate program that includes breadth in liberal arts and sciences is required. Any major is acceptable. Prior work experience related to information professions is useful, but is not required. The GRE is not required.

International students: TOEFL or equivalent scores are required if English is not the native language, or if the undergraduate instruction was not in English. The Information School follows UW Graduate School rules regarding English proficiency exams. See the Graduate School website (<http://grad.wisc.edu>) for updated information. For more information

about admission to the master's program, see iSchool MA Admissions. (<https://ischool.wisc.edu/current-students/masters-degree-program>)

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
No	No	Yes	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules.

Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum 39 credits

Credit Requirement

Minimum 33 credits

Residence Credit Requirement

Minimum Graduate Coursework Requirement A minimum of 30 credits must be taken from graduate-level Information School M.A. coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle>).

The remaining 9 credits of coursework must be 300 level or above and may not include iSchool undergraduate coursework.

Overall 3.00 GPA required.

Graduate GPA Requirement

Other Grade Requirements Within the student's total program, one grade of BC or C is allowable in either a required or elective course if it is balanced by a grade of A or AB earned prior to or concurrently with the unsatisfactory grade. A second grade of BC or C or any grade of D or F will normally result in the student being dropped from the program.

Assessments and Examinations Candidates must complete a minimum of a 120-hour practicum, and must complete a portfolio.

Language Requirements No language requirements.

REQUIRED COURSES

The program has three courses that all students must take. These courses are foundational to the field and provide prerequisite knowledge for more advanced courses.

Code	Title	Credits
Required Courses		
L I S 601	Information: Perspectives and Contexts	3
L I S 602	Information: Organization and Search	3
L I S 603	Research and Assessment for Information Professionals	3
Management Courses		
Choose at least 3 credits from the following:		
L I S 654	Information Services Management	
L I S 712	The Public Library	
L I S 732	Strategic Information Services	
Technology Courses		
Choose at least 3 credits from the following:		
L I S 500	Code and Power	
L I S 644	Digital Tools, Trends and Debates	
L I S 646	Introduction to Info Architecture and Interaction Design for the Web	
L I S 668	Digital Curation and Collections	

L I S 751	Database Design for Information Professionals	
L I S 768	Digital Humanities Analytics	
Practicum		3
Most students fulfill the practicum requirement by taking:		
L I S/CURRIC 620	Field Project in Library and Information Agencies	
Electives		21
E-Portfolio		
Students may take up to 9 credits of electives outside of the iSchool. All non-LIS electives must be approved by the student's advisor.		
Total Credits		39

Students seeking school library media certification have additional required courses; for details, see <https://ischool.wisc.edu/programs/masters-degree-program/concentrations/librarianship/school-library-media-program/>

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

NAMED OPTION-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://ischool.wisc.edu/current-students/ma-requirements-overview/ma-program-planning-guides>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

Students may count up to 6 credits of approved graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

With approval, UW–Madison undergraduates accepted into the Information School program may count up to 7 graduate iSchool credits (LIS 400 and above) toward their M.A. degree.

UW–Madison University Special

Students are allowed to count up to 6 approved credits of coursework numbered 400 or above taken as a UW–Madison Special Student. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

A student may be placed on probation or suspended from the Graduate School for low grades or for failing to resolve incompletes

in a timely fashion. In special cases the Graduate School permits students who do not meet these minimum standards to continue on probation upon recommendation and support of their advisor. See iSchool Student Handbook. (<https://ischool.wisc.edu/current-students/ma-requirements-overview/ma-program-planning-guides>)

ADVISOR / COMMITTEE

All continuing students are required to meet with their advisor prior to registering for each semester in order to remove registration holds and ensure timely progress towards degree completion. Students may switch advisors at any time by completing a change of advisor form.

CREDITS PER TERM ALLOWED

The iSchool recommends 3 to 6 credits per semester for online students. 8 to 12 credits in a regular semester is considered full time at the graduate level.

TIME CONSTRAINTS

The maximum period for completion of the M.A. (under special circumstances) is seven calendar years. Contact the department for more information.

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Online program students are not permitted to accept teaching assistantships, project assistantships, research assistantships, or other appointments that would result in a tuition waiver. Also, students in this program cannot enroll in other graduate programs nor take courses outside the prescribed curriculum.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PEOPLE

Faculty: Professors Eschenfelder (Director), Downey, Kim, Whitmire; Associate Professors Rubel, Arnott-Smith, Willett; Assistant Professors Royston, Senchyne

For a complete faculty/staff directory see <https://ischool.wisc.edu/>

LIBRARY AND INFORMATION STUDIES, PH.D.

The Ph.D. program at the UW–Madison Information School (iSchool) cultivates a cooperative, supportive intellectual environment that allows a small group of highly qualified students to excel in their doctoral studies.

By admitting a small cohort of doctoral students each year, we can ensure that each student develops close working relationships with faculty members, receives strong and consistent advising, and is fully funded.

The iSchool Ph.D. program is writing intensive, requiring students produce a substantial body of written work as they prepare to research and compose their dissertations. We provide a structure in which students conduct original research and prepare results for presentation and publication in scholarly conferences and journals. iSchool faculty members work closely with Ph.D. students to help them polish their research for publication, and most students graduate with several published articles.

Because it is part of an internationally top-ranked research university, the iSchool offers students the opportunity to engage in the rich variety of educational experiences both within the school and in the broader University of Wisconsin–Madison campus.

For more information including instructions on admissions, please see the iSchool PhD program webpage. (<https://ischool.wisc.edu/programs/phd-program>)

To see the research interests and expertise of iSchool faculty members, please refer to the iSchool Faculty Research Page (<https://ischool.wisc.edu/faculty-staff-directory/research>).

RESIDENCE AND COMMUNITY

The iSchool Ph.D. program is residential program. Students must be able to attend classes in person at UW–Madison for two to three years. Most students continue to live near Madison as they research and write their dissertations. Four to five years of full-time study is typical for students to complete the degree. The school strongly prefers full time Ph.D. students.

ABOUT THE INFORMATION SCHOOL PROGRAMS

The Information School or “the iSchool at UW–Madison” is a professional school offering several degrees and non-credit education that prepare students for future careers in the information professions:

- The iSchool M.A. degree (<https://ischool.wisc.edu/current-students/masters-degree-program>) is a professional masters that offers five concentration areas: Librarianship, Archives in a Digital Age, Data/Information Management and Analytics, User Experience Design and Information Technologies, Organization of Information. See the M.A. Guide page here (p. 795).
- The Capstone Certificate in User Experience Design (<http://hci.wisc.edu/madux>) is an educational credential aimed at working adults who seek further education to advance their careers or move into new fields without the commitment of a full masters degree. See the Capstone Certificate Guide page here (<http://guide.wisc.edu/nondegree/capstone/user-experience-design-capstone-certificate>).
- The Ph.D. degree (<https://ischool.wisc.edu/programs/phd-program>) provides advanced academic preparation for those wishing to pursue careers in academia, industrial research or policy making.
- Undergraduate Digital Studies certificate (<https://ischool.wisc.edu/programs/undergraduatedigital-studies>) provides undergraduate coursework in information technologies and society and information management. See the Undergraduate Certificate Guide page

here (<http://guide.wisc.edu/undergraduate/letters-science/communication-arts/digital-studies-certificate>).

- The iSchool offers noncredit continuing education short courses (<https://ischool.wisc.edu/continuing-education>) that help information professionals stay up to date.

COMMUNITY

The Information School at UW–Madison is well known for its public-good, community-engagement orientation (<https://ischool.wisc.edu/slis/community-engagement>). It is home to several student organizations that shepherd long-term, information-justice projects including the Jail Library Group, the Tribal Library Archives and Museums Group, and the Allied Drive Literacy Project. Student groups at the iSchool (<https://ischool.wisc.edu/current-students/slis-student-organizations>) are very active and organize and sponsor events.

The iSchool Library, (<https://www.library.wisc.edu/ischool>) whose windows overlook the shores of Lake Mendota and the oak trees of Muir Knoll, is a very popular campus space for study and relaxation. The Information School Library is also home to:

- RADD (<http://radd.dsalo.info>) “Recovering Analog and Digital Data” a digital data recovery workshop that provides fee-for-service recovery of data from a wide variety of media types.
- The Text Technologies Press: (<http://www.wiscprintdigital.org/projects/text-technologies>) typography and letterpress printing equipment for teaching book history, book arts, design, art, and making.

RESEARCH AND SCHOLARSHIP

The Information School faculty are known for scholarly work in the areas of:

- data and information policy and ethics,
- user behaviors and literacies, print culture,
- library and information technology history,
- electronic publishing,
- ICT and development, and transnational diaspora use of ICT
- the social aspects of information and communications systems.

Faculty have made valuable scholarly contributions in the areas of medical information retrieval systems, online search behavior and search effectiveness, publisher e-journal licensing practices, information technology history, print culture and library history, information ethics and policy, and youth and new media. For more information see the iSchool Research Overview Page. (<https://ischool.wisc.edu/faculty-staff-directory/research>)

Faculty and staff are widely involved in different research areas on campus. For example, the iSchool is home to the Center for the History of Print and Digital Culture (<http://www.wiscprintdigital.org>), a research center focused on authorship, reading, publication and distribution of print and digital materials. The Information School faculty members are involved with the Holtz Center for Science and Technology Studies, the Digital Humanities Research Network, the Wisconsin Institute for Discovery, and the Center for Financial Security.

ADMISSIONS

APPLICATION REQUIREMENTS

Ph.D. admissions at the Information School require GRE scores, a GPA of 3.0 (on a 4.0 scale) or better in the last 60 hours of academic credit earned; a master's degree in an appropriate field; a detailed written statement of the area of research interest, fit with current faculty and the purpose for pursuing doctoral study; and an interview (usually a phone interview) with the school's Ph.D. committee or other faculty members serving on the committee's behalf. International students must meet the Graduate School's language and degree requirements.

For more information, including detailed instructions for submitting an application, see this link (<https://ischool.wisc.edu/programs/phd-program>).

OTHER INFORMATION

Applicants whose GPA falls below the required level must provide other evidence of academic ability. (Advice on the type of evidence appropriate to the applicant should be requested from the administrator of the doctoral program.) Applicant qualifications for admission will be reviewed by the school's Ph.D. committee, which will make an admissions recommendation to the director who, in turn, makes a recommendation to the Graduate School. The criteria used in this review include academic promise, the probability that the school's doctoral program will meet the goals and research interests of the applicant, and that the applicant will be able to complete the program successfully. Under certain circumstances, admission may be approved on a probationary basis or with deficiencies. Students will not normally be permitted to continue longer than the first year on probation. For more information see the Ph.D. program admissions page.

M.A. graduates who are accepted into the Information School Ph.D. program may count up to 10 qualified credits from their iSchool M.A. degree toward their Ph.D. Qualified courses include iSchool Ph.D. seminars (900 level) and research methods courses (e.g. L I S 603 Research and Assessment for Information Professionals).

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Prospective students should see the Information School PhD program website (<https://ischool.wisc.edu/programs/phd-program>) for funding information.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 51 credits including dissertator credits

Minimum Residence Credit Requirement 32 credits

Minimum Graduate Coursework Requirement The majority of a Ph.D. student's coursework must be completed in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle>). Courses at the 300–600 level should be taken sparingly and must be approved by the student's advisor.

Overall Graduate GPA Requirement	3.50 GPA required.
Other Grade Requirements	To remain in good academic standing within the iSchool Ph.D. program, a student must maintain a 3.5 overall GPA, not carry any incomplete grades in courses (other than 999s) for more than 1 semester, and pass all mastery demonstration paper deadlines by appointed deadlines.
Assessments and Examinations	Each student is required to fulfill at least one teaching practicum and at least two different research practica. Students will demonstrate mastery of the required subject areas and research skills through three mastery demonstration papers and a program portfolio. Presentation and successful defense of a program portfolio and statement of intent constitutes the preliminary examination. Successful defense of the program portfolio and statement of intent constitutes formal acceptance into candidacy for the Ph.D. degree.
Language Requirements	No; however, coursework in a foreign language may be required if necessary for completing research activities.
Doctoral Minor/Breadth Requirements	All doctoral students are required to complete a minor.

REQUIRED COURSES

A general research methods course is required of all students. This must be a graduate-level course, and if not taken at the iSchool (L I S 603 Research and Assessment for Information Professionals) the student must present a transcript and, if possible, a syllabus to the course. In addition, students must take Ph.D. research seminar L I S 910 Smr-Research Design & Methodology for Library & Information Studies and are required to take a minimum of two semesters of statistics and one semester of qualitative research. Each student must take at least one course in each of three (out of four) designated areas to develop a breadth of knowledge about the field. For more information see the Information School PhD program website. (<https://ischool.wisc.edu/programs/phd-program>)

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

Students may count up to 9 credits of approved graduate coursework from other institutions. Coursework earned ten

years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

No credits counted toward a UW–Madison undergraduate degree are allowed to count toward the Ph.D. degree.

UW–Madison University Special

Students are allowed to count up to 9 approved credits of coursework numbered 450 or above taken as a UW–Madison Special student. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

PROBATION

Students who fail to meet any of the above criteria will receive a letter of warning from the Ph.D. program director placing them on probationary status. They will have one additional semester (not including summer) to change their status. If they do not successfully change their status, they will be asked to leave the program. If students do not expect to successfully change their status within the probationary semester, they can request that the Ph.D. committee grant a probation extension; however, an extension will be granted only if the student can prove likelihood of success in the upcoming semester. The student should send a letter asking for an extension and providing evidence of likelihood of success to the Ph.D. program director.

ADVISOR / COMMITTEE

The Information School Ph.D. Committee serves as the Progress Evaluation Committee for doctoral students. Upon admission, the Ph.D. committee chair serves as the default advisor for all students. At any point, the student may switch to a major professor/advisor based on similarities in research interests. The student's doctoral committee shall be five members of the graduate faculty; no fewer than three are to be from the iSchool faculty and at least one shall be from outside the school.

CREDITS PER TERM ALLOWED

8 to 12 credits in a regular semester is considered full time at the graduate level. Course load maximums are 12 credits in a regular semester, 8 credits in the summer term and 3 credits in the intersession.

TIME CONSTRAINTS

Completion of the degree should be within a three- to four-year period beyond earning the master's degree.

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing their program portfolio and statement of intent may be required to take additional coursework, redefend their program portfolio and statement of intent, and to be admitted to candidacy a second time.

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

A complete set of Information School Ph.D. program policies can be found in the PhD program planning guide on the iSchool PhD program website. (<https://ischool.wisc.edu/programs/phd-program>)

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Employ specific methodologies appropriate to areas of study.
2. Demonstrate basic capacities to employ new digital data collection and analysis methodologies.
3. Demonstrate knowledge of a range of theories in research areas as well as core LIS theories.
4. Able to add to existing bodies of theory, scholarship or scientific knowledge through critique, testing or extension in scholarly output.
5. Demonstrate scholarly excellence.
6. Demonstrate skills and experience in teaching.
7. Demonstrate mastery of scholarly writing genre.
8. Demonstrate strong oral communication skills.
9. Demonstrate involvement in the LIS academic community.

PEOPLE

Faculty: Professors Eschenfelder (Director), Downey, Kim, Whitmire; Associate Professors Rubel, Arnott-Smith, Willett; Assistant Professors Royston, Senchyne

For a complete faculty/staff directory see <https://ischool.wisc.edu/>

LIBRARY AND INFORMATION STUDIES, SPECIALIST CERTIFICATE

The Specialist Certificate is only available to students who have been admitted to, and are registered for courses in, the iSchool Ph.D. program (p. 805). It is an alternative degree for iSchool Ph.D. students who choose not to complete the full requirements for the Ph.D. program. Current Ph.D. students interested in the Specialist Certificate option should discuss it with their major advisor or the Ph.D. program advisor.

ADMISSIONS

It is not possible to apply directly to the Specialist Certificate. The Specialist Certificate is only available to students who have been

admitted to, and who are making progress toward, the iSchool Ph.D. program.

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement	42 credits
Minimum Residence Credit Requirement	24 credits

Minimum Graduate Coursework Requirement Half of degree coursework must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle>). All coursework must be above 300 level and may not include iSchool undergraduate coursework.

Overall 3.00 GPA required.

Graduate GPA Requirement

Other Grade Requirements n/a

Assessments and Examinations The candidate is required to prepare and publicly defend a major project/paper in addition to completing credit hour requirements.

Language Requirements No language requirements unless assigned by program.

REQUIRED COURSES

- For a Ph.D. student to move to the Specialist Certificate, they must have completed 42 credits toward their Ph.D. degree; 24 of those must be graduate credits completed after admission to the Information School Ph.D. program. All coursework must comply with Graduate School minimum requirements.
- Up to half of the credits should be from academic units related to the student's specialization (including but not limited to the iSchool).
- The candidate is required to prepare and publicly defend a major project/paper in addition to completing credit hour requirements.
- Students may count up to 10 credits of graduate coursework from an iSchool M.A. degree.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

Students may count up to 10 credits of approved graduate coursework from other institutions.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree may count toward the specialist certificate.

UW–Madison University Special

No courses taken as UW–Madison Special student may count toward the specialist certificate.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies. An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor.

To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

8 to 12 credits in a regular semester is considered full time at the graduate level.

TIME CONSTRAINTS

Students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

n/a

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PEOPLE

Faculty: Professors Eschenfelder (Director), Downey, Kim, Whitmire; Associate Professors Rubel, Arnott-Smith, Willett; Assistant Professors Royston, Senchyne

For a complete faculty/staff directory see <https://ischool.wisc.edu/>

PRINT CULTURE HISTORY, DOCTORAL MINOR

Since 1980 the field has generated a sizable literature, and with the establishment of this doctoral minor in 1998, the study of print

culture history has found an institutional home within the University of Wisconsin–Madison’s curricular structure. The Doctoral Minor in Print Culture History gives graduate students opportunities to design a curriculum around the historical study and sociology of books and print culture within their general doctoral studies. The program particularly encourages students to do original archival and special collections work in the extensive relevant holdings of the library systems of the University of Wisconsin–Madison and the Wisconsin Historical Society (<http://www.wisconsinhistory.org>).

See the full description of the Doctoral Minor in Print Culture History (<http://www.wiscprintdigital.org/ph-d-minor>) on the Center for the History of Print and Digital Culture website for more information.

ADMISSIONS

The Minor in Print Culture History is an interdisciplinary program functioning under the University of Wisconsin–Madison Graduate School’s Option A rules (see the Graduate School Catalog, Minors) (<http://guide.wisc.edu/graduate/#doctoralminorstext>). To qualify, students will need written approval from their major advisor and from the director of the Doctoral Minor in Print Culture History.

REQUIREMENTS

Like the study of print culture itself, the minor is intentionally flexible and interdisciplinary. Students are required to take a **minimum of 12 credits** in courses whose subjects in some way address print culture, book history, or related topics. Related topics may range from the history of mass communications, cartography, literature, education, consumer movements, and library and information studies, to subjects dealing with gender, race, age, social class, and sexual orientation. Within the 12-credit minor, students are required to take at least **3 credits of seminar studies**. LIS/ART HIST/HISTORY/JOURN 650 History of Books and Print Culture in Europe and North America is *highly recommended* for 3 of the 12 credits toward the minor.

PEOPLE

Faculty: Professors Eschenfelder (Director), Downey, Kim, Whitmire; Associate Professors Rubel, Arnott-Smith, Willett; Assistant Professors Royston, Senchyne

For a complete faculty/staff directory see <https://ischool.wisc.edu/>

INSTITUTE FOR CLINICAL AND TRANSLATIONAL RESEARCH

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Clinical and Community Outcomes, Graduate/Professional Certificate (p. 811)
- Clinical Investigation, Doctoral Minor (p. 814)
- Clinical Investigation, M.S. (p. 815)
- Clinical Investigation, Ph.D. (p. 817)

- Fundamentals of Clinical Research, Graduate/Professional Certificate (p. 820)

CLINICAL AND COMMUNITY OUTCOMES, GRADUATE/PROFESSIONAL CERTIFICATE

OVERVIEW

Students who are interested in solving problems in community health, health services, or health policy, may want to supplement their training with the Certificate in Clinical and Community Outcomes Research.

Current research investments reflect an emphasis on research that looks for ways to translate what has been learned in controlled settings into positive outcomes in clinical practice and community health. This research requires the ability to:

- consider multiple factors that interact to influence a community or organization;
- form and manage research partnerships with communities and organizations;
- evaluate whether a health intervention or prevention method works or will be used; and
- articulate policy implications of health issues and interventions.

The Certificate in Clinical and Community Outcomes Research focuses on the development of these skills.

The certificate addresses a well-documented gap in what should be a continuum between basic health and medical research discoveries and the application of those discoveries in clinical and public health practice. To bridge this gap new discoveries must move beyond efficacy studies to research that tests effectiveness in real-world settings, exploring factors that facilitate or impede positive health outcomes. This research requires engagement among community members, organizations, clinicians and researchers as partners in the research process and draws on a distinct set of skills. This certificate focuses on the development of skills to engage successfully in clinical and community health outcomes research.

ADMISSIONS

APPLICATION GUIDELINES

The Institute for Clinical and Translational Research (ICTR) is the administrative home of the certificate in clinical and community outcomes research. Detailed information about the curriculum, admission requirements, application procedures, and student services coordinators is posted on the ICTR website (<http://www.ictr.wisc.edu>).

Whether a student enrolls in the graduate/professional certificate or capstone certificate program will depend on their educational goals. (Course requirements are the same for all.)

GRADUATE/PROFESSIONAL CERTIFICATE PREREQUISITES AND APPLICATION AND ENROLLMENT PROCEDURES

Graduate and professional students from any discipline are eligible to apply for enrollment in the graduate/professional certificate program. To be considered for admission, complete the following application procedures.

1. Print and complete the certificate application form (available on the program website (<https://ictr.wisc.edu/T2TRCertificate>)).
2. Send the completed application to Sharon Schumacher, 5163 Cooper Hall, University of Wisconsin, Madison, WI 53705; scschumache2@wisc.edu.
3. Applications are reviewed on a rolling basis by the certificate advisory committee.
4. Notification of admission to the certificate program: If the student has completed the application procedures described above, notification of the admission decision will be received within three weeks. Students with questions about the status of the application should contact Sharon Schumacher at scschumache2@wisc.edu.
5. After the student is admitted, the certificate advisory committee will review the stated research interests and recommend an advisor. An objective is to match students with an advisor from a discipline other than their own, to expose students to a variety of perspectives. Students will be notified with the name and contact information of their advisor. They should schedule a meeting with the certificate advisor within the first month after being admitted to identify learning and career objectives, and to discuss the program in relation to student goals.
6. **Note to Ph.D. students:** Ph.D. students may want to start the graduate/professional certificate program early enough to be finished before starting the dissertation because university policy states: "If a dissertator wants to pursue a graduate degree or certificate in another area, the dissertator fee status will be discontinued and regular graduate fees will be assessed, with possible consequences listed above." See the Graduate School's policy on Dissertator Status (<https://grad.wisc.edu/acadpolicy/#dissertationstatus>).

FUNDING

TUITION

The fee structure for the certificate is the same as that of the UW–Madison Master of Public Health (MPH) program, which is posted here (http://registrar.wisc.edu/tuition_&fees.htm). To view the applicable tuition information, select the term/semester you intend to enroll and, under "Student Career," select Master of Public Health (MPH) in the drop-down box. The certificate program is 13 to 15 total credit hours. Most of our students enroll in an average of one 3-hour course per semester. Approved, previously completed course work can be retroactively applied to fulfill certificate requirements.

REQUIREMENTS

Code	Title	Credits
Core Requirement		3

POP HLTH 709	Translational and Outcomes Research in Health and Health Care
Electives	
Select one course from each of the following areas: ¹ 7-9	
<i>Working with Communities</i>	
HDFS 872	Bridging the Gap Between Research and Action
HDFS/ED PSYCH/ NURSING/ SOC WORK 880	Prevention Science
I SY E 417	Health Systems Engineering
I SY E/PSYCH 653	Organization and Job Design
I SY E/ POP HLTH 703	Quality of Health Care: Evaluation and Assurance
NURSING 702	Health Promotion and Disease Prevention in Diverse Communities
NURSING 761	Health Program Planning, Evaluation, and Quality Improvement
OTM 753	Healthcare Operations Management
OTM 758	Managing Technological and Organizational Change
OTM 770	Sustainable Approaches to System Improvement
S&A PHM 652	Pharmacist Communication: Educational and Behavioral Interventions
POP HLTH/ I SY E 703	Quality of Health Care: Evaluation and Assurance
POP HLTH 780	Public Health: Principles and Practice
SOC/ C&E SOC 573	Community Organization and Change
SOC/C&E SOC/ URB R PL 617	Community Development
<i>Quantitative Methods Relevant to Clinical and Community Outcomes Research</i>	
CURRIC 715	Design of Research in Curriculum and Instruction
ED PSYCH 762	Introduction to the Design of Educational Experiments
NURSING 803	Advanced Quantitative Design and Methods
S&A PHM 711	Research Methods for Pharmaceutical Outcomes and Policy Research
POP HLTH 796	Introduction to Health Services Research
POP HLTH 803	Monitoring Population Health
PUB AFFR 818	Introduction to Statistical Methods for Public Policy Analysis
PUB AFFR 819	Advanced Statistical Methods for Public Policy Analysis
PUB AFFR/ POLI SCI 871	Public Program Evaluation
SOC WORK 650	Methods of Social Work Research

SOC WORK/ URB R PL 721	Methods of Planning Analysis	
SOC 751	Survey Methods for Social Research	
SOC 752	Measurement and Questionnaires for Survey Research	
URB R PL/ SOC WORK 721	Methods of Planning Analysis	
URB R PL/DS/ F&W ECOL 955	Practical Research Design and Methods of Empirical Inquiry	
<i>Qualitative Methods Relevant to Clinic and Community Outcomes Research</i>		
ANTHRO 909	Research Methods and Research Design in Cultural Anthropology	
COUN PSY/ CURRIC/ED POL/ ED PSYCH/ELPA/ RP & SE 788	Qualitative Research Methods in Education: Field Methods I	
CURRIC/ COUN PSY/ ED POL/ ED PSYCH/ELPA/ RP & SE 719	Introduction to Qualitative Research	
ELPA 824	Field Research Designs & Methodologies in Educational Administratn	
MED HIST 728	Biomedical Ethics and Society	
NURSING 804	Advanced Qualitative Design and Methods	
SOC/ED POL 955	Seminar-Qualitative Methodology <i>Integrated Quantitative and Qualitative Methods Relevant to Translational and Outcomes Research</i> ²	
CURRIC 714	Research and Evaluation Paradigms in Curriculum and Instruction	
ELPA 725	Research Methods and Procedures in Educational Administration	
MED PHYS/ I SY E 559	Patient Safety and Error Reduction in Healthcare	
POP HLTH/ I SY E 875	Cost Effectiveness Analysis in Health and Healthcare	
SOC/ C&E SOC 750	Research Methods in Sociology	
GEN&WS 900	Approaches to Research in Women's Studies/Gender Studies	
<i>Project</i> ³		
Complete 2 credits ²		2
<i>Seminar</i>		
Select one of the following:		1
POP HLTH 990	Research ⁴	
I SY E 961	Graduate Seminar in Industrial Engineering ⁵	
Total Credits		13-15

¹ The certificate advisor can help students choose courses that qualify as fulfilling the three elective areas: (1) Working with Communities, (2) Quantitative, and (3) Qualitative Research Methods Relevant to Translational and Outcomes Research. At least one of the courses must be from outside the student's major. Students may propose to

their certificate advisor an alternative course (i.e., not on the list of approved electives) for consideration as elective credit, including a course that also fulfills a requirement for their degree program. For criteria and procedures, see CCOR Handbook on the program website (<https://ictr.wisc.edu/certificate-research-programs>).

² **Integrated courses.** Some courses suggested for elective credit cover a combination of quantitative and qualitative research methods. To fulfill course requirements in the areas of both "Quantitative" and "Qualitative Research Methods Relevant to Translational and Outcomes Research," students must complete one of each type of course or one integrated Quantitative/Qualitative course and an additional course from either the "Quantitative" or "Qualitative Research Methods Relevant to Translational and Outcomes Research" areas.

³ See "Project" under "Course Requirements" on the program website (<https://ictr.wisc.edu/T2TRCertificate>).

⁴ POP HLTH 990 Research. Choose section 990–092. This is the AQORN seminar (Access, Quality, and Outcomes Research Network), offered through the Health Innovations Program (HIP). AQORN is an informal lunchtime seminar that is open to University of Wisconsin faculty, staff, and students interested in health services research. AQORN meets for 90 minutes, sometimes as frequently as twice a month. At each meeting, someone who has a research project in progress presents information about their project. Then the group discusses and exchanges information and ideas relevant to the project. See the program website (<https://ictr.wisc.edu/T2TRCertificate>) for course-credit requirements and enrollment procedures.

⁵ I SY E 961 Graduate Seminar in Industrial Engineering is offered through the Department of Industrial and Systems Engineering. Since I SY E 961 is not offered on a regular basis, the alternative is for a student to sign up for a one-credit independent study with Professor Pascale Carayon (carayon@enr.wisc.edu) (Carayon@ie.engr.wisc.edu). The student will be required to watch all of the patient safety seminars (SEIPS—Systems Engineering Initiative for Patient Safety) that have been videotaped over the years. The student will write two one-page summaries of two seminars that are due on the last day of class. The SEIPS seminars are available on the Video Library website (<https://videos.med.wisc.edu>) > Series > Community Academic Partnership (CAP) Patient Safety.

POLICIES

The Graduate Program Handbook (<https://sites.google.com/a/wisc.edu/t2trcertificate>) is the repository for all of the certificate program's policies and requirements.

PROFESSIONAL DEVELOPMENT

ADDITIONAL RESOURCES AND OPPORTUNITIES

UW Institute for Clinical and Translational Research (<https://ictr.wisc.edu>)

Resources to support clinical, translational and outcomes research

Mentoring

- Research Mentoring: <https://mentoringresources.ictr.wisc.edu/>

- The Individual Development Plan for mapping your mentee's (graduate student and postdoc) academic and professional development: <http://grad.wisc.edu/pd/idp>

Qualitative and Mixed Methods Research Resources (<https://sites.google.com/a/wisc.edu/qualitative-and-mixed-methods-resources>)

Video lectures on topics relevant to translational and outcomes research (<http://videos.med.wisc.edu/learningthemes>) (After you open this page, scroll to the bottom.)

HIP Xchange (<https://www.hipxchange.org>)

Tools, videos, and data downloads to identify socioeconomic disadvantaged locations, improve patient engagement in research, identify patients with chronic conditions, and more.

Training-grant opportunities (<https://sites.google.com/a/wisc.edu/training-resources>)

LEARNING OUTCOMES

1. Develop a research question about a health concern of an actual community.
2. Select an evidence-based approach to addressing the health concern.
3. Involve investigators from two or more disciplines and/or stakeholders from two or more sectors as partners in your project.
4. Demonstrate an understanding of collaboration skills for sustainable partnerships, e.g., benefits to the community partner(s) are built into the project; evidence of partner input to project design.
5. Employ data gathering and analysis methods that respect community partners' organizational culture, values, staffing, and work flow.

PEOPLE

FACULTY ADVISORS

- Barbara Bowers, Ph.D., R.N., School of Nursing, Certificate Program Director
- Pascale Carayon, Ph.D., College of Engineering, Department of Industrial and Systems Engineering
- Betty Chewning, Ph.D., School of Pharmacy
- Jan Greenberg, Ph.D., School of Social Work
- Barbara King, Ph.D., School of Nursing
- Maureen Smith, M.D., MPH, Ph.D., School of Medicine and Public Health

For online profiles, visit Handbook (<https://sites.google.com/a/wisc.edu/t2trcertificate/handbook>), Advisement.

CLINICAL INVESTIGATION, DOCTORAL MINOR

Doctoral students in engineering, nursing, veterinary medicine, and other disciplines can declare a focus in Clinical and Translational Science (<https://ictr.wiscweb.wisc.edu/documents/gpci-minor-declaration-form>) by earning the doctoral minor in Clinical Investigation to learn about

applications of research to clinical disciplines. The minor provides students with foundational training in interdisciplinary clinical research, while emphasizing a scientific area of graduate study.

Students should be aware that:

- No course that counts for the major can also count for the minor. Frequently this means that students have to take two ethics courses—one for the major and one for the minor. The point of the minor focus is to add breadth to the student's coursework.

Important Note: For students who are funded by the TL1 Predoctoral Training Program, the minor requires additional training as described on the TL1 website (<https://ictr.wisc.edu/career-development-awards-2>).

REQUIREMENTS

The minor requires 10 credits, including three required courses and a fourth elective required course. Note: For students who are funded by the TL1 Predoctoral Training Program, the minor requires additional training as described on the TL1 website (<https://ictr.wisc.edu/career-development-awards-2>).

Code	Title	Credits
Required Courses		
B M I/STAT 541	Introduction to Biostatistics ¹	1-3
or B M I 699	Independent Study	
B M I/STAT 542	Introduction to Clinical Trials I	3
One lecture course in the Responsible (Ethical) Conduct of Research selected from the following list or an equivalent course approved by the Executive Committee:		1-2
MED HIST 545	Ethical and Regulatory Issues in Clinical Investigation	
PHARMACY 800	Research Ethics: Scientific Integrity and the Responsible Conduct of Research	
SURG SCI 812	Research Ethics and Career Development	
OBS&GYN 955	Responsible Conduct of Research for Biomedical Graduate Students	
NURSING 802	Ethics and the Responsible Conduct of Research	
ONCOLOGY 675	Advanced or Special Topics in Cancer Research	
Elective Courses		
Select from the following to reach 10 credits:		
NURSING/MEDICINE/POP HLTH 705	Seminar in Interdisciplinary Clinical Research Evidence	2
FAM MED 701	Perspectives in Multidisciplinary Clinical & Translational Research	2
POP HLTH/SOC 797	Introduction to Epidemiology	3
B M I 544	Introduction to Clinical Trials II	3

¹ The 1-credit B M I 699 Independent Study is a companion course to B M I/STAT 541 for students with prior approval who have taken equivalent coursework to B M I/STAT 541 in the past.

PEOPLE

Students earning a doctoral degree in related science, with a focus on Clinical and Translational Science (PhD^{CTS}) have several faculty mentors to choose from, including but not limited to faculty in the Graduate Program in Clinical Investigation. Please peruse the faculty and their research here (<https://ictr.wisc.edu/graduate-program-in-clinical-investigation>).

CLINICAL INVESTIGATION, M.S.

Clinical investigation is a field in which teams of health care professionals, biostatisticians and others imagine, design, and conduct clinical research, and then take discoveries to human or animal patient populations in the health care system or in communities.

The graduate program in clinical investigation (GPCI) offers a 30-credit M.S. degree. The focus of GPCI is to provide physicians, clinical scientists, and other health care professionals with the knowledge and skills needed to conduct and translate basic science discoveries into clinical applications through patient (human or animal)-oriented research. The M.S. program trains students to help move research toward solutions for patient populations more quickly.

Applicants ideally will have a health professional degree (M.D., DVM, Pharm.D., Ph.D., BSN, BSE, MPT, DPT). Clinical Investigation students are unique among UW–Madison graduate students because they enter the program with a terminal degree (with exceptions) and they are seeking training to directly apply their work with patients.

Full-time and part-time enrollment is available. Most core courses meet at 4 p.m. or later, to accommodate the schedules of working health professionals.

The curriculum draws from existing courses in the partner schools, and includes new courses developed exclusively for the GPCI. Coursework provides a solid foundation in research methods and analysis, including biostatistics, study design, and ethical conduct. Through electives and a research requirement, students pursue their own areas of specialization in patient-oriented clinical research.

Representatives from the Schools of Medicine and Public Health, Nursing, Pharmacy and Veterinary Medicine, and the College of Engineering met as a task force in 2006 to design the program. They are joined by partner Marshfield Clinic as members of the faculty executive committee that guides the program.

GPCI is housed in the UW Institute for Clinical and Translational Research (ICTR) and is designed in response to a need for clinical research training programs. The ICTR Clinical and Translational Science Award (CTSA) facilitates the UW–Madison's ability to offer a spectrum of graduate programs in clinical research. This applied, clinical and translational graduate program complements the areas of clinical research training by the population health graduate program.

The knowledge and skills acquired while earning a degree in clinical investigation can be applied to jobs in academic institutions; private industry, including pharmaceutical companies, insurers and managed care organizations; government agencies; non-profit organizations; and a range of local to international organizations.

ADMISSIONS

The program accepts applications each February 1 for the M.S. for the fall term only. Exceptions for spring admission are made rarely and only if the applicant has taken fall prerequisite courses.

The faculty executive committee for the program considers all aspects of each application. The applicant must meet the minimum requirements of the Graduate School plus those of the program, listed here:

- Have a focused area of interest in patient-oriented clinical research and a passion for continuing in a career in patient-oriented research
- Ideally have a health professional degree (M.D., DVM, Pharm.D., Ph.D., BSN, BSE, MPT, DPT).
- Have GRE scores if the applicant does not have a graduate or medical professional degree from a U.S. institution
- Identify a primary advisor to mentor and support the applicant throughout graduate study.

Acceptance into the program will depend in part on identification of a research program that aligns with a student's research interests and career goals, a student's fit with the program and likelihood of successfully completing a graduate degree. Identification of a faculty advisor and research area of study is a key consideration in the admissions process but does not guarantee admission.

Acceptance into the program does not assure funding.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	Yes	No	Yes	Yes

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 31 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement Half of degree coursework must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements Students must earn a B or above in all core curriculum coursework.

Assessments and Examinations Defense of M.S. thesis required. The thesis is submitted in writing to the degree committee two weeks prior to the defense date; the thesis is defended verbally during the defense meeting.

Language Requirements No language requirements.

REQUIRED COURSES

Depending on which ethics course is chosen, 30–31 credits are required to earn the M.S. Below is a list of required courses and research requirements.

Code	Title	Credits
A graduate entry level biostatistics course. Possible course selections include: ¹		3
B M I/STAT 541	Introduction to Biostatistics	
B M I 699	Independent Study (Topic: Introduction to Biostatistics)	
STAT/F&W ECOL/ HORT 571	Statistical Methods for Bioscience I	
FAM MED 701	Perspectives in Multidisciplinary Clinical & Translational Research	2
POP HLTH/SOC 797	Introduction to Epidemiology	3
One lecture course in the Responsible (Ethical) Conduct of Research selected from the following list or an equivalent course approved by the Executive Committee:		1-2
MED HIST 545	Ethical and Regulatory Issues in Clinical Investigation	
PHARMACY 800	Research Ethics: Scientific Integrity and the Responsible Conduct of Research	
SURG SCI 812	Research Ethics and Career Development	
OBS&GYN 955	Responsible Conduct of Research for Biomedical Graduate Students	
NURSING 802	Ethics and the Responsible Conduct of Research	
ONCOLOGY 675	Advanced or Special Topics in Cancer Research	
An intermediate statistics course.		3
B M I/STAT 542	Introduction to Clinical Trials I	3
B M I 544	Introduction to Clinical Trials II	3
NURSING/ MEDICINE/ POP HLTH 705	Seminar in Interdisciplinary Clinical Research Evidence	2
B M I 699	Independent Study (Topic: Patient-Oriented Research Presentation Skills Seminar)	1
Research: Med (or other department) 990		6-8
Total Credits		27-30

¹ The 1-credit B M I 699 Independent Study is for students with instructor consent who have prior statistics (not biostatistics) coursework.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://ictr.wiscweb.wisc.edu/wp-content/uploads/sites/163/2016/10/GPCISStudentHandbook2017.pdf>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, an M.S. student's graduate coursework from other institutions no longer than five years ago may count toward the degree.

UW-Madison Undergraduate

No credits from a UW-Madison undergraduate degree are allowed to count toward the degree.

UW-Madison University Special

With program approval, M.S. students may be allowed to count graduate-level courses that they took as a Special student. Because the program provides flexibility to clinical professionals who frequently begin their graduate careers part time as Special students, the program may allow up to 15 such credits for M.S. students. Courses taken as a Special student numbered under the 700 level do not count toward the 50% graduate coursework requirement.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

ADVISOR / COMMITTEE

M.S. students select their faculty advising (degree) committees by the end of the first year in the program. Students and the advisors who sign the form are asked to meet annually or more.

CREDITS PER TERM ALLOWED

12 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Full time Ph.D. students and dual degree students are eligible for NIH funding. Students must obtain a faculty adviser, and write a detailed personal statement that demonstrates working knowledge of clinical and/or translational research. No rotations are offered.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PROGRAM RESOURCES

See the ICTR website (<https://ictr.wisc.edu>) for more information.

LEARNING OUTCOMES

1. Lead to translation of research among the laboratory, clinic and population through technological or systems innovations, including but not limited to drug therapies, medical devices, biological materials, clinical processes, and/or behavioral interventions.
2. Are appropriately patient-oriented.
3. Draw on the expertise of collaborators in multiple disciplines.
4. Integrate clinical and translational science across multiple departments, schools and colleges, clinical and research institutes, and healthcare delivery organizations.
5. Determine when it is appropriate to use a patient-oriented research design to investigate a translational clinical problem.
6. Understand the principles of multidisciplinary patient-oriented clinical research protocols.
7. Analyze, interpret and report research findings of clinical studies through peer-reviewed scientific channels and to a lay audience.
8. Apply and foster professional, ethical and responsible conduct of clinical research.

PEOPLE

Faculty

CLINICAL INVESTIGATION, PH.D.

Clinical investigation is a field in which teams of health care professionals, biostatisticians and others imagine, design, and conduct clinical research, and then take discoveries to human or animal patient populations in the health care system or in communities.

The focus of the 51-credit Ph.D. in Clinical Investigation is to enable translational competency among team leaders. In other words, the graduate program trains students to help move research toward solutions for patient populations more quickly. The Ph.D. is one of fewer than 10 offered in the country with this focus.

Applicants ideally will have a health professional degree (M.D., DVM, Pharm.D., Ph.D., BSN, BSE, MPT, DPT). Clinical Investigation students are unique among UW–Madison graduate students because they enter the program with a terminal degree (with exceptions) and they are seeking training to directly apply their work with patients.

Full-time and part-time enrollment is available. Most core courses meet at 4 p.m. or later, to accommodate the schedules of working health professionals.

The graduate program in clinical investigation (GPCI) that offers the Ph.D. is housed in the UW Institute for Clinical and Translational Research (ICTR) and is designed in response to a need for clinical research training programs. The ICTR Clinical and Translational Science Award (CTSA) facilitates the UW–Madison's ability to offer a spectrum of graduate programs in clinical research. This applied, clinical and translational graduate program complements the areas of clinical research training by the population health graduate program.

Representatives from the Schools of Medicine and Public Health, Nursing, Pharmacy and Veterinary Medicine, and the College of Engineering met as a task force in 2006 to design the program. All ICTR academic partners are represented in the curriculum. They are joined by partner Marshfield Clinic as members of the faculty executive committee that guides the program.

The curriculum draws from existing courses in the partner schools, and includes new courses developed exclusively for the GPCI. Coursework provides a solid foundation in research methods and analysis, including biostatistics, study design, and ethical conduct. Through electives and a research requirement, students pursue their own areas of specialization in patient-oriented clinical research.

The knowledge and skills acquired while earning a degree in clinical investigation can be applied to jobs in academic institutions; private industry, including pharmaceutical companies, insurers and managed care organizations; government agencies; non-profit organizations; and a range of local to international organizations.

ADMISSIONS

The program accepts applications each February 1 for the Ph.D. for the fall term only. Exceptions for spring admission are made rarely and only if the applicant has taken fall prerequisite courses.

The faculty executive committee for the program considers all aspects of each application. The applicant must meet the minimum requirements of the Graduate School plus those of the program, listed here:

- Have a focused area of interest in patient-oriented clinical research and a passion for continuing in a career in patient-oriented research
- Ideally have a health professional degree (M.D., DVM, Pharm.D., Ph.D., BSN, BSE, MPT, DPT).
- Have GRE scores if the applicant does not have a graduate or medical professional degree from a U.S. institution
- Identify a primary advisor to mentor and support the applicant throughout graduate study.

Acceptance into the program will depend in part on identification of a research program that aligns with a student's research interests and career goals, a student's fit with the program and likelihood of successfully completing a graduate degree. Identification of a faculty

advisor and research area of study is a key consideration in the admissions process but does not guarantee admission.

Acceptance into the program does not assure funding.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Prospective Ph.D. students should see the program website (<https://ictr.wisc.edu/graduate-program-in-clinical-investigation>) for funding information.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	Yes	No	Yes	Yes

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement	51 credits
Minimum Residence Credit Requirement	32 credits
Minimum Graduate Coursework Requirement	Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.
Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	Students must earn a B or above in all core curriculum coursework.
Assessments and Examinations	Oral preliminary exam required. Defense of Ph.D. dissertation required. The dissertation is submitted in writing to the degree committee two weeks prior to the defense date, and then defended verbally during the defense meeting.
Language Requirements	No language requirements.
Doctoral Minor/Breadth Requirements	Doctoral students in Clinical Investigation are not required to complete a doctoral minor. Breadth is achieved in other areas of the curriculum.

REQUIRED COURSES

Code	Title	Credits
NURSING/MEDICINE/POP HLTH 705	Seminar in Interdisciplinary Clinical Research Evidence	2
FAM MED 701	Perspectives in Multidisciplinary Clinical & Translational Research	2
A graduate entry level biostatistics course. Possible course selections include: ¹		3
B M I/STAT 541	Introduction to Biostatistics	
B M I 699	Independent Study (Topic: Introduction to Biostatistics)	
STAT/F&W ECOL/HORT 571	Statistical Methods for Bioscience I	
An intermediate statistics course		3
B M I/STAT 542	Introduction to Clinical Trials I	3
B M I 544	Introduction to Clinical Trials II	3
One lecture course in the Responsible (Ethical) Conduct of Research selected from the following list or an equivalent course approved by the Executive Committee:		1-2
MED HIST 545	Ethical and Regulatory Issues in Clinical Investigation	

PHARMACY 800	Research Ethics: Scientific Integrity and the Responsible Conduct of Research	
SURG SCI 812	Research Ethics and Career Development	
OBS&GYN 955	Responsible Conduct of Research for Biomedical Graduate Students	
NURSING 802	Ethics and the Responsible Conduct of Research	
ONCOLOGY 675	Advanced or Special Topics in Cancer Research	
POP HLTH/SOC 797	Introduction to Epidemiology	3
A noncredit regulatory experience activity: Students attend PHARMACY 800, sign a confidentiality agreement, review a protocol submitted to an Institutional Review Board, and attend an IRB meeting (supervised). This activity is also known as the RCR Laboratory.		
Advanced statistics or analytical methods courses. Students are encouraged to consult the program administrator about their options, such as:		6
STAT/F&W ECOL/HORT 572	Statistical Methods for Bioscience II	
SOC 751	Survey Methods for Social Research	
SOC/C&E SOC 360	Statistics for Sociologists I	
SOC/C&E SOC 361	Statistics for Sociologists II	
STAT/B M I 642	Statistical Methods for Epidemiology	
B M I 773	Clinical Research Informatics	3
CS&D 900	Seminar-Speech Science (Topic: Research Career Development Seminar on Grant Writing)	2-3
Doctoral Dissertation Research		18

¹ The 1-credit B M I 699 Independent Study is for students with instructor consent who have prior statistics (not biostatistics) coursework.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://ictr.wiscweb.wisc.edu/wp-content/uploads/sites/163/2016/10/GPCISStudentHandbook2017.pdf>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, a Ph.D. student's graduate coursework from other institutions no longer than ten years ago may count toward the degree.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

With program approval, Ph.D. students may be allowed to count graduate level courses that they took as a Special student. Because the program provides flexibility to clinical professionals who frequently begin their graduate careers part time as Special students, the program may allow up to 15 such credits for M.S. and Ph.D. students. Courses taken as a Special Student numbered under the 700 level do not count toward the 50% graduate coursework requirement.

PROBATION

A semester GPA below 3.0 will result in the student being placed on academic probation. If a semester GPA of 3.0 is not attained during the subsequent semester of full time enrollment (or 12 credits of enrollment if enrolled part-time) the student may be dismissed from the program or allowed to continue for 1 additional semester based on advisor appeal to the Graduate School.

ADVISOR / COMMITTEE

Ph.D. students select their faculty advising (degree) committees by the end of the first year in the program. Students and the advisors who sign the Proposed Degree Committee form are asked to meet annually or more; dissertators (post–preliminary exam) twice a year or more.

CREDITS PER TERM ALLOWED

12 credits

TIME CONSTRAINTS

Doctoral students are expected to pass the final oral examination and deposit the dissertation no later than five years from the date of passing the preliminary examination. The oral examination is the oral defense of the completed dissertation. Full-time students generally complete the dissertation within two years of the preliminary examination. Part-time students may take longer.

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Full-time Ph.D. students and dual degree students are eligible for NIH funding. Students must obtain a faculty adviser, and write a detailed personal statement that demonstrates working knowledge of clinical and/or translational research. No rotations are offered.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PROGRAM RESOURCES

See the ICTR website (<https://ictr.wisc.edu>) for more information.

LEARNING OUTCOMES

1. Lead to translation of research among the laboratory, clinic and population through technological or systems innovations, including but not limited to drug therapies, medical devices, biological materials, clinical processes, and/or behavioral interventions.
2. Are appropriately patient-oriented.
3. Draw on the expertise of collaborators in multiple disciplines.
4. Integrate clinical and translational science across multiple departments, schools and colleges, clinical and research institutes, and healthcare delivery organizations.
5. Determine when it is appropriate to use a patient-oriented research design to investigate a translational clinical problem.
6. Analyze, interpret and report research findings of clinical studies through peer-reviewed scientific channels and to a lay audience.
7. Disseminate knowledge through teaching and mentoring students/trainees.
8. Apply and foster professional, ethical and responsible conduct of clinical research.

PEOPLE

Faculty (<https://ictr.wisc.edu/graduate-program-in-clinical-investigation>)

FUNDAMENTALS OF CLINICAL RESEARCH, GRADUATE/ PROFESSIONAL CERTIFICATE

To conduct patient-oriented clinical studies adequately, it is necessary to understand the principles of research design and statistical analysis. With increasing complexities in clinical research, it is imperative that clinical researchers receive a minimum training in clinical research methods. The objective of the certificate in the fundamentals of clinical research is to provide formalized training in clinical research methodology and a practicum in research design and statistical analysis in patient-oriented clinical research. Areas of study include: biostatistics, epidemiology, research ethics and the responsible conduct of research, and clinical trials design and implementation.

ADMISSIONS

Applications to the certificate program are considered on a rolling basis. Students in graduate or professional school at the UW–Madison simply apply in time to register for the semester in which they want to start the certificate courses.

Submit the Graduate or Professional Certificate application (<https://ictr.wiscweb.wisc.edu/documents/professional-certificate-in-the-fundamentals-of-clinical-research-application>).

All forms and materials can be emailed in PDF form (preferred), delivered, or mailed to:

Sally Wedde, Program Manager
rec-education@hslc.wisc.edu
2112 Health Sciences Learning Center
750 Highland Avenue
Madison, WI 53705

REQUIREMENTS

The Certificate Program in the Fundamentals of Clinical Research consists of five courses for a total of 13–14 semester credits.

Code	Title	Credits
Required Courses		
B M I/STAT 541	Introduction to Biostatistics	3
B M I/STAT 542	Introduction to Clinical Trials I	3
B M I 544	Introduction to Clinical Trials II	3
POP HLTH/SOC 797	Introduction to Epidemiology	3
One lecture course in ethical conduct of research selected from the following list of courses:		1-2
SURG SCI 812	Research Ethics and Career Development	
MED HIST 545	Ethical and Regulatory Issues in Clinical Investigation	
NURSING 802	Ethics and the Responsible Conduct of Research	
ONCOLOGY 715	Ethics in Science	
PHARMACY 800	Research Ethics: Scientific Integrity and the Responsible Conduct of Research	
OBS&GYN 955	Responsible Conduct of Research for Biomedical Graduate Students	
Total Credits		13-14

Questions can be directed to Sally Wedde, Program Manager, at rec-education@hslc.wisc.edu. (<http://guide.wisc.edu/graduate/institute-clinical-translational-research/fundamentals-clinical-research-graduate-professional-certificate/rec-education@hslc.wisc.edu>)

LEARNING OUTCOMES

1. Determine when it is appropriate to use a patient-oriented research design to investigate a translational clinical problem.

2. Understand the principles of clinical research design and statistical analysis.

3. Understand the principles of multidisciplinary patient-oriented clinical research protocols.

4. Apply and foster professional, ethical and responsible conduct of clinical research.

INSTITUTE FOR REGIONAL AND INTERNATIONAL STUDIES

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- African Studies, Doctoral Minor (p. 822)
- African Studies, Graduate/Professional Certificate (p. 824)
- East Asian Studies, Doctoral Minor (p. 825)
- European Studies, Graduate/Professional Certificate (p. 826)
- Global Studies, Doctoral Minor (p. 829)
- Latin American, Caribbean, and Iberian Studies, Doctoral Minor (p. 829)
- Latin American, Caribbean, and Iberian Studies, M.A. (p. 832)
- Russian, East European and Central Asian Studies, Doctoral Minor (p. 837)
- Russian, East European and Central Asian Studies, Graduate/Professional Certificate (p. 837)
- Russian, East European and Central Asian Studies, M.A. (p. 838)
- Southeast Asian Studies, Doctoral Minor (p. 843)
- Southeast Asian Studies, Graduate/Professional Certificate (p. 843)
- Southeast Asian Studies, M.A. (p. 843)

PEOPLE

AFRICAN STUDIES

Faculty: Professors Hutchinson (chair) (African Studies/Anthropology), Adell (Afro-American Studies), Anderson (Music), Barrows (Agricultural and Applied Economics), Baumann (Nursing), Bernault (History), Bershady (Astronomy), Bloch (Curriculum and Instruction), Bosu (Veterinary Medicine), Bunn (Anthropology), Carter (Agricultural and Applied Economics), Chavas (Agricultural and Applied Economics), Christensen (Animal Health and Biomedical Sciences), Cowell (African Languages and Literature), Drewal (Art History/Afro-American Studies), Fair (Journalism and Mass Communication), Gallagher (Astronomy), Gjerde (Medicine and Public Health), Graziano (Medicine and Public Health), Haq (Medicine and Public Health), Hauner (African Languages and Literature), Hewson (Curriculum and Instruction), Johnson-Powell (Medicine and Public Health), Klug (Law), Ladson-Billings (Medicine and Public Health), Langston (Forest and Wildlife Ecology), McClintock (English), Memon (Languages and Cultures of Asia), Naughton (Geography), Nixon (English), Ntambi (Biochemistry), Olaniyan (African Languages and Literature/English), Payne (Political Science), Popkewitz (Curriculum and Instruction), Posner (Agronomy), Reed (Animal Sciences), Reschovsky (Agricultural and Applied Economics), Schatzberg (Political Science), Scheub (African Languages and

Literature), Schleicher (African Languages and Literature), Seidman (Sociology), Shapiro (Agricultural and Applied Economics), Songolo (African Languages and Literature/French and Italian), Tesfagiorgis (Afro-American Studies), Thompson (Law), Tripp (Political Science/Gender and Women's Studies), Turner (Geography), Verna (Art), Wilcots (Astronomy), Zeichner (Curriculum and Instruction); Associate Professors Al-Ghadeer (African Languages and Literature), Anstett (Family Medicine), Chamberlain (History), Conway (Communication Arts), Conway (Pediatrics), Foltz (Agricultural and Applied Economics), Jenson (French and Italian), Lambert (Anthropology), Madureira (Comparative Literature), Nesper (Anthropology), Pickering (Anthropology), Sapega (Spanish and Portuguese), Stambach (Educational Policy Studies), Sweet (History); Assistant Professors Hark (Design), Keller (History of Science), Kendall (Educational Policy Studies), Kodesh (History), Sellers (Social Work), Straus (Political Science), Wendland (Medicine and Public Health/Anthropology)

EAST ASIAN STUDIES

Faculty: Professors Davis (Engineering Professional Development), Dong (Design Studies/SOHE), Dunne (Asian Languages and Cultures), Furumoto (Theater and Drama), Kern (Asian Languages and Cultures), Li (Linguistics), McGloin (Asian Languages and Cultures), Mori (Asian Languages and Cultures), Nienhauser (Asian Languages and Cultures), Ohnesorge (Law), Ohnuki-Tierney (Anthropology), Pan (Communication Arts), Phillips (Art History), Sidel (Law), Ridgely (director) (Asian Languages and Cultures), Young (History), Zhou (Anthropology); Associate Professors Cheng (History), Dennis (History), D'Etcheverry (Asian Languages and Cultures), Geyer (Asian Languages and Cultures), Huang (Asian Languages and Cultures), Huntington (Asian Languages and Cultures), Meulenbeld (Asian Languages and Cultures), Miyamoto (Psychology), Raymo (Sociology), Shi (Agricultural and Applied Economics), Thal (History), Zhang (Asian Languages and Cultures); Assistant Professors Chan (History), Choy (Dance/Education), Fan (Theater and Drama), Kim (History), Kinzley (History), Li (Art History), Lim (Asian Languages and Cultures), Murthy (History), Yang (Asian Languages and Cultures), Zhu (Asian Languages and Cultures)

EUROPEAN STUDIES

Faculty: Chair: Professor Ringe (Political Science); Faculty Steering Committee: Professors Allen (Scandinavian Studies), Brossard (Life Sciences Communication), Covington (European Studies), Ferree (Sociology), Klug (Law), Livorni (French and Italian), Olds (Geography), Potter (German), Silberman (German), Wolf (Scandinavian Studies)

LATIN AMERICAN, CARIBBEAN, AND IBERIAN STUDIES

Faculty: Professors Rojas (LACIS director) (Journalism and Mass Communication), Allen (Plant Pathology), Albuquerque (Spanish and Portuguese), Apple (Curriculum and Instruction), Barham (Agricultural and Applied Economics), Beilin (Spanish and Portuguese), Bilbija (Spanish and Portuguese), Calderon (Music), Collins (Sociology), Corfis (Spanish and Portuguese), De Ferrari (Spanish and Portuguese), Drewal (Art History), Egea (Spanish and Portuguese), Escalante (Art), Ewig (Gender and Women's Studies), Frantzen (Spanish and Portuguese), Hildner (Spanish and Portuguese), Hill (English/American Indian Studies), Hutchinson (Spanish and Portuguese), Madureira (Spanish and Portuguese), Mallon (History), Marquez (Nelson Institute for Environmental Studies/Political Science), Medina (Spanish and Portuguese), Mello (Business), Naughton (Geography), Neinhuis (Horticulture), Olaniyan (African Languages and Literature), Patz (Nelson Institute for Environmental Studies), Pevehouse (Political Science), Podesta, (Spanish and Portuguese), Popkewitz (Education),

Radano (Ethnomusicology), Sanchez (Spanish and Portuguese), Strier (Anthropology), Sweet (History), Sytsma (Botany), Tochon (Curriculum and Instruction), Tripp (Political Science), Waller (Botany and Environmental Studies), Wattieux (Animal Science), Zamora (Spanish and Portuguese), Zepeda (Consumer Science); Associate Professors Alix-Garcia (Agricultural and Applied Economics), Cabrera (Dairy Science), Close (Spanish and Portuguese), Emshwiller (Botany) Gaus (Medicine), Hernandez (Spanish and Portuguese), Huneeus (Law), Kallenborn (Design Studies), Marin-Spiotta (Geography), Pellegrini (Spanish and Portuguese), Schechter (Agricultural and Applied Economics), Stafford (Spanish and Portuguese, Walker (Dance) ; Assistant Professor Clayton (Anthropology), Associate Faculty Barrett (Sociology), DiPrete Brown (Global Health), Egon (Spanish and Portuguese), Gemrich (Spanish and Portuguese), Kaaikiola Strohbusch (Spanish and Portuguese), Vargas, (LACIS associate director); Lecturers Druc (Anthropology), Muniagurria (Economics), Muyolema (Anthropology), Woodward (Botany)

RUSSIAN, EAST EUROPEAN AND CENTRAL ASIAN STUDIES

Faculty: Professors Gerber (chair) (Sociology), Belodubrovskaya (Communication Arts), Bethea (Slavic Languages), Brenner (Jewish Studies), Buenger (Art History), Chamberlain (History), Cincia (History), Dale (Art History), Danaher (Slavic Languages), Derin (Languages and Cultures of Asia), Dolinin (Slavic Languages), DuBois (Scandinavian Studies), Evans-Romaine (Slavic Languages), Filipowicz (Slavic Languages), Gehlbach (Political Science), Hendley (Law, Political Science), Herrera (Political Science), Hirsch (History), Hollander (Jewish Studies), Johnson (Educational Leadership and Policy Analysis), Kaiser (Geography), Kepley (Communication Arts), Kydd (Political Science), Lapina (Slavic Languages), Livanos (Comparative Literature), Longinovic (Slavic Languages), McDonald (History), Michels (History), Miernowska (Slavic Languages), Neville (History), Radeloff (Forest and Wildlife Ecology), Reynolds (Slavic Languages), Schamiloglu (Languages and Cultures of Asia), Shevelenko (Slavic), Tishler (CREECA, Slavic Languages), Tumarkin (Slavic Languages), van de Water (Slavic Languages), Wink (History)

SOUTHEAST ASIAN STUDIES

Faculty: Professors Bowie (Anthropology), Cowell (African Languages & Literature), Coxhead (Agricultural & Applied Economics), Gade (Nelson Institute for Environmental Studies), Gunther (Journalism & Mass Communications), Hansen (center director) (History), Macken (Linguistics), A. McCoy (History), Olds (Geography), Rafferty (Asian Languages & Cultures), Sidel (Law), Winichakul (History), Zhou (Anthropology); Associate Professors Nobles (Sociology); Assistant Professors Baird (Geography), Choy (Dance/Asian American Studies), Ho (Curriculum and Instruction/Education), Kim (Anthropology); Faculty Associates Barnard (Asian Languages & Cultures), Cullinane (History/Southeast Asian Studies), M. McCoy (Communication Arts/Southeast Asian Studies); Lecturers Chanprasert-Elbow (Asian Languages & Cultures), Dinh (Asian Languages & Cultures), Lee (Asian Languages & Cultures, Zamar (Asian Languages & Cultures); Librarian Ashmun (Southeast Asia Collection, Memorial Library)Journa

AFRICAN STUDIES, DOCTORAL MINOR

The Doctoral Minor in African Studies is for students completing a Ph.D. at the University of Wisconsin–Madison who wish to focus their study on

Africa. It requires four courses or seminars in two departments outside the student's major department. The African studies minor is completed under "Minor Option A" of the Graduate School regulations.

SUGGESTIONS FOR STUDENTS PURSUING THE DOCTORAL MINOR IN AFRICAN STUDIES

- **Early Approval of Minor Program:** It is the student's responsibility as a graduate student to determine that all courses/seminars being completed are eligible for inclusion in the doctoral minor. Students are encouraged to consult with the African Studies Program advisor before taking courses intended to be included in the minor.
- **Language Training:** In planning the program, students should bear in mind the strong desirability of attaining competence in an African language. For many kinds of research, ability to use a language as a research tool is indispensable.
- **Auditing Courses:** In addition to courses and seminars formally taken for credit, students are encouraged to audit additional offerings to develop a broad competence in African studies.

ADMISSIONS

- Meet with the African Studies Program advisor. To make an appointment, send an email to Aleia McCord, aleia.mccord@wisc.edu.
- Submit the Ph.D. Minor in African Studies application form and obtain the approval and signature of major professor. After you have completed the preliminary Ph.D. examinations, the African Studies Program director or designate will sign the warrant indicating completion of the minor.

REQUIREMENTS

- Complete a minimum of 12 graduate credits from the African Studies Program core curriculum (http://africa.wisc.edu/?page_id=26) in four courses or seminars outside the major field, and from at least two different departments. (Agricultural and applied economics, and economics courses/seminars are considered to be of one discipline for purposes of the minor.)
- Graduate credit is available only for courses with numbers of 300 or higher.
- At least one of these four units must be a course or seminar at the 700 to 900 level. No thesis or dissertation credits (990) may be used.
- Introductory first-year language courses may not be used for the doctoral minor in African studies even if they are numbered 300 or higher. Language courses may count for the minor only in so far as they do not overlap with departmental language requirements. When a department requires an African language for the Ph.D., language courses may count toward the minor only above and beyond four semesters of study in one language.
- Include no more than one independent reading and research course in the four courses or seminars submitted.

SPECIAL CIRCUMSTANCES AND CONDITIONS IN COMPLYING WITH THE DOCTORAL MINOR

- **Grade Point Average:** A 3.0 grade point average is required for all courses submitted for the minor.
- **Credits from Other Universities:** Courses from other universities that were taken for graduate credit may count toward the minor with approval of the African Studies Program. Normally, only two of

the required four courses or seminars may come from outside the University of Wisconsin–Madison. Exceptions may be proposed by petition.

- **Courses Taken as an Undergraduate:** Courses taken while the candidate was an undergraduate student are not eligible for credit toward the doctoral minor, including courses with graduate-level numbers.

LEARNING OUTCOMES

1. **Regional expertise:** advanced knowledge of the societies and cultures of the region through in-depth understanding of the principal historical, social, political, cultural and scientific forces and conditions that have given rise to the unity and diversity in the region today.
2. **Multi-disciplinarity:** analyzing contemporary political, economic, and cultural realities in the region from at least two disciplinary perspectives, ideally including humanities, social sciences and sometimes natural science approaches.
3. **Depth of knowledge:** advanced knowledge of particular facets of life in the region by taking courses on particular sub-regions or countries, by studying a regional language, or by taking at least two courses on the region in one discipline
4. **Research and methods:** Students must demonstrate the ability to conduct interdisciplinary research that shows knowledge of research methodologies, demonstrates analytical skills, and the ability to articulate and elaborate research findings.

PEOPLE

Faculty: Professors Hutchinson (chair) (African Studies/Anthropology), Adell (Afro-American Studies), Anderson (Music), Barrows (Agricultural and Applied Economics), Baumann (Nursing), Bernault (History), Bershaday (Astronomy), Bloch (Curriculum and Instruction), Bosu (Veterinary Medicine), Bunn (Anthropology), Carter (Agricultural and Applied Economics), Chavas (Agricultural and Applied Economics), Christensen (Animal Health and Biomedical Sciences), Cowell (African Languages and Literature), Drewal (Art History/Afro-American Studies), Fair (Journalism and Mass Communication), Gallagher (Astronomy), Gjerde (Medicine and Public Health), Graziano (Medicine and Public Health), Haq (Medicine and Public Health), Hauner (African Languages and Literature), Hewson (Curriculum and Instruction), Johnson-Powell (Medicine and Public Health), Klug (Law), Ladson-Billings (Medicine and Public Health), Langston (Forest and Wildlife Ecology), McClintock (English), Memon (Languages and Cultures of Asia), Naughton (Geography), Nixon (English), Ntambi (Biochemistry), Olaniyan (African Languages and Literature/English), Payne (Political Science), Popkewitz (Curriculum and Instruction), Posner (Agronomy), Reed (Animal Sciences), Reschovsky (Agricultural and Applied Economics), Schatzberg (Political Science), Scheub (African Languages and Literature), Schleicher (African Languages and Literature), Seidman (Sociology), Shapiro (Agricultural and Applied Economics), Songolo (African Languages and Literature/French and Italian), Tesfagiorgis (Afro-American Studies), Thompson (Law), Tripp (Political Science/Gender and Women's Studies), Turner (Geography), Verna (Art), Wilcots (Astronomy), Zeichner (Curriculum and Instruction); Associate Professors Al-Ghadeer (African Languages and Literature), Anstett (Family Medicine), Chamberlain (History), Conway (Communication Arts), Conway (Pediatrics), Foltz (Agricultural and Applied Economics), Jenson

(French and Italian), Lambert (Anthropology), Madureira (Comparative Literature), Nesper (Anthropology), Pickering (Anthropology), Sapega (Spanish and Portuguese), Stambach (Educational Policy Studies), Sweet (History); Assistant Professors Hark (Design), Keller (History of Science), Kendall (Educational Policy Studies), Kodesh (History), Sellers (Social Work), Straus (Political Science), Wendland (Medicine and Public Health/Anthropology)

- Only one course in a single language may count toward the certificate, but two languages courses count if they are in different African languages.
- **Note:** All African Cultural Studies courses (<http://guide.wisc.edu/courses/african>) may count toward the graduate certificate within the limits set by the distribution requirements described above.

AFRICAN STUDIES, GRADUATE/ PROFESSIONAL CERTIFICATE

The Graduate Certificate in African Studies is awarded to students at the graduate level at the University of Wisconsin–Madison to certify advanced training in African studies. It is awarded by the African Studies Program and the Graduate School.

ADMISSIONS

APPLICATION FOR GRADUATE CERTIFICATE IN AFRICAN STUDIES

- Contact Aleia McCord, assistant director and advisor, at aleia.mccord@wisc.edu.
- Submit the application form for the Graduate Certificate in African Studies and obtain the approval and signature of the major professor. After the student has completed the requirements for the graduate certificate in African studies, the African Studies Program director or designate will inform the major department that the student has earned the certificate.

FUNDING

Information about funding through the African Studies Program is available from our website (http://africa.wisc.edu/?page_id=28). We also encourage our students to explore funding options available through the Institute for Regional and International Studies (IRIS) Awards Office (<https://iris.wisc.edu/funding>).

REQUIREMENTS

- Complete at least 12 credits of African Studies Program core courses or extended core courses taught by an African Studies Program faculty member.
- Graduate credit is available only for courses numbered 300 or higher.
- Maintain a grade point average of 3.0 (on a 4.0 scale).
- Fulfill the requirements for a master's or doctoral degree at the University of Wisconsin–Madison.
- Include 9 credits outside the major department. No more than 3 credits will count from the major department.
- Complete at least one graduate-level seminar in African studies with a grade of AB or better. It may be in the major field.

ADDITIONAL TERMS

- Include no more than 3 credits of directed reading and research or independent reading (AFRICAN 699 Directed Study, AFRICAN 999 Independent Reading and Research). No thesis/dissertation credits (AFRICAN 990 Thesis) may be included.

LEARNING OUTCOMES

1. Regional expertise: advanced knowledge of the societies and cultures of the region through in-depth understanding of the principal historical, social, political, cultural and scientific forces and conditions that have given rise to the unity and diversity in the region today.
2. Multi-disciplinarity: analyzing contemporary political, economic, and cultural realities in the region from at least two disciplinary perspectives, ideally including humanities, social sciences and sometimes natural science approaches.
3. Depth of knowledge: advanced knowledge of particular facets of life in the region by taking courses on particular sub-regions or countries, by studying a regional language, or by taking at least two courses on the region in one discipline
4. Research and methods: Students must demonstrate the ability to conduct interdisciplinary research that shows knowledge of research methodologies, demonstrates analytical skills, and the ability to articulate and elaborate research findings.

PEOPLE

Faculty: Professors Hutchinson (chair) (African Studies/Anthropology), Adell (Afro-American Studies), Anderson (Music), Barrows (Agricultural and Applied Economics), Baumann (Nursing), Bernault (History), Bershady (Astronomy), Bloch (Curriculum and Instruction), Bosu (Veterinary Medicine), Bunn (Anthropology), Carter (Agricultural and Applied Economics), Chavas (Agricultural and Applied Economics), Christensen (Animal Health and Biomedical Sciences), Cowell (African Languages and Literature), Drewal (Art History/Afro-American Studies), Fair (Journalism and Mass Communication), Gallagher (Astronomy), Gjerde (Medicine and Public Health), Graziano (Medicine and Public Health), Haq (Medicine and Public Health), Hauner (African Languages and Literature), Hewson (Curriculum and Instruction), Johnson-Powell (Medicine and Public Health), Klug (Law), Ladson-Billings (Medicine and Public Health), Langston (Forest and Wildlife Ecology), McClintock (English), Memon (Languages and Cultures of Asia), Naughton (Geography), Nixon (English), Ntambi (Biochemistry), Olaniyan (African Languages and Literature/English), Payne (Political Science), Popkewitz (Curriculum and Instruction), Posner (Agronomy), Reed (Animal Sciences), Reschovsky (Agricultural and Applied Economics), Schatzberg (Political Science), Scheub (African Languages and Literature), Schleicher (African Languages and Literature), Seidman (Sociology), Shapiro (Agricultural and Applied Economics), Songolo (African Languages and Literature/French and Italian), Tesfagiorgis (Afro-American Studies), Thompson (Law), Tripp (Political Science/Gender and Women's Studies), Turner (Geography), Verna (Art), Wilcots (Astronomy), Zeichner (Curriculum and Instruction); Associate Professors Al-Ghadeer (African Languages and Literature), Anstett (Family Medicine), Chamberlain (History), Conway (Communication Arts), Conway (Pediatrics), Foltz (Agricultural and Applied Economics), Jenson (French and Italian), Lambert (Anthropology), Madureira (Comparative

Literature), Nesper (Anthropology), Pickering (Anthropology), Sapega (Spanish and Portuguese), Stambach (Educational Policy Studies), Sweet (History); Assistant Professors Hark (Design), Keller (History of Science), Kendall (Educational Policy Studies), Kodesh (History), Sellers (Social Work), Straus (Political Science), Wendland (Medicine and Public Health/Anthropology)

EAST ASIAN STUDIES, DOCTORAL MINOR

Students who are candidates for the Ph.D. degree in another department or program may obtain an interdisciplinary minor in East Asian studies by earning a minimum of 12 credits in East Asian area studies. The credits must be earned in at least three departments other than the major department.

REQUIREMENTS

COURSES

Interdisciplinary courses may be taken from many departments. Courses must contain a minimum of 25 percent East Asian content. For more information about courses that can count for the Minor, please contact East Asian Studies. UW–Madison Graduate School regulations concerning the use of courses required for the student's major as part of the minor are to be observed when selecting courses. Because the instructors and contents of a course may change over time, please consult East Asian studies for confirmation on whether a course may count for a doctoral minor.

Code	Title	Credits
Agricultural and Applied Economics		
A A E/INTL ST 374	The Growth and Development of Nations in the Global Economy	3
A A E/ECON 474	Economic Problems of Developing Areas	3
Anthropology		
ANTHRO 300	Cultural Anthropology: Theory and Ethnography	3
ANTHRO 330	Topics in Ethnology	3-4
ANTHRO 357	Introduction to the Anthropology of Japan	3
ANTHRO 358	Anthropology of China	3
ANTHRO 490	Undergraduate Seminar	3
ANTHRO 940	Seminar-Problems in Cultural Anthropology	3
Art History		
ART HIST 307	Early Chinese Art: From Antiquity to the Tenth Century	3
ART HIST 308	Later Chinese Art: From the Tenth Century to the Present	3
ART HIST 371	Chinese Painting	3-4
ART HIST 372	Arts of Japan	3-4
ART HIST 375	Later Japanese Painting and Woodblock Prints	3-4
ART HIST 411	Topics in Asian Art	3-4

ART HIST 475	Japanese Ceramics and Allied Arts	3
ART HIST/RELIG ST 478	Art and Religious Practice in Medieval Japan	3
ART HIST 575	Proseminar in Japanese Art	3
ART HIST 576	Proseminar in Chinese Art	3
ART HIST 875	Seminar in Japanese Art	3
ART HIST 876	Seminar in Chinese Art	3

Asian Languages and Cultures

All upper-level/graduate-level courses on East Asia offered by the Department of Asian Languages and Cultures may be taken as part of the East Asian studies Ph.D. minor¹

Communication Arts

COM ARTS 458	Global Media Cultures	3
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Comparative Literature

COMP LIT 775	Literature and Related Disciplines	3
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Curriculum and Instruction

CURRIC 564	Advanced Problems on the Teaching of World Languages	3
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Dance

DANCE 560	Current Topics in Dance: Workshop	3
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East Asian Studies

E A STDS 270	Humanities Topics in East Asian Studies	1-3
E A STDS/ASIAN 301	Social Studies Topics in East Asian Studies	3
E A STDS 698	Directed Study	1-3
E A STDS 699	Directed Study	2-3

Economics

ECON 364	Survey of International Economics	4
ECON 464	International Trade and Finance	3
ECON 467	International Industrial Organizations	3
ECON 475	Economics of Growth	4

History

HISTORY 336	Chinese Economic and Business History: From Silk to iPhones	3-4
HISTORY/E A STDS 337	Social and Intellectual History of China, 589 AD-1919	3-4
HISTORY/E A STDS 341	History of Modern China, 1800-1949	3-4
HISTORY/E A STDS 342	History of the Peoples Republic of China, 1949 to the Present	3-4
HISTORY/E A STDS 454	Samurai: History and Image	3-4
HISTORY/E A STDS 456	Pearl Harbor & Hiroshima: Japan, the US & The Crisis in Asia	3-4
HISTORY 600	Advanced Seminar in History	3
HISTORY 725	Seminar in East Asian History	3
HISTORY 753	Seminar-Comparative World History	3
HISTORY 854	Seminar in Modern Chinese History	3
HISTORY 855	Seminar in Japanese History	3

International Business

INTL BUS/M H R 403	Global Issues in Management	3
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INTL BUS/ MARKETNG 420	Global Marketing Strategy	3
INTL BUS/ REAL EST 430	International Real Estate	3
INTL BUS/ FINANCE 445	Multinational Business Finance	3
INTL BUS/ FINANCE 745	Multinational Business Finance	3
INTL BUS/ REAL EST 730	International Real Estate	3
INTL BUS/OTM 755	International Operations: Problems and Administration	3
Journalism and Mass Communication		
JOURN 621	Mass Communication in Developing Nations	4
Languages and Cultures of Asia		
All upper-level/graduate-level courses concerned with the languages, cultures and religions of China, Japan, Korea, Tibet, or Chinese ethnic minorities offered by the Department of Languages and Cultures of Asia may be taken as part of the East Asian Studies Ph.D. minor ²		
Law		
LAW 872	Legal Issues Involving North America and East Asia	2
LAW 940	Law and Contemporary Problems (The State in Economic Development)	2
LAW 940	Law and Contemporary Problems (Chinese Law)	2
LAW 953	Selected Problems in Business Organization-Seminar	1
Literature in Translation		
LITTRANS 368	Modern Japanese Fiction	3
LITTRANS 372	Classical Japanese Prose in Translation	3
LITTRANS 373	Topics in Japanese Literature	3
Music		
MUSIC/ FOLKLORE 402	Musical Cultures of the World	3
MUSIC/ FOLKLORE 515	Proseminar in Ethnomusicology	3
MUSIC/ FOLKLORE 915	Seminar in Ethnomusicology	3
Political Science		
POLI SCI 351	Politics of the World Economy	3-4
POLI SCI 313	Bargaining in the Global Economy	3
POLI SCI 346	China in World Politics	3-4
POLI SCI 421	The Challenge of Democratization	3-4
POLI SCI 640	Politics of Japan	3-4
POLI SCI 324	Political Power in Contemporary China	3-4
POLI SCI 654	Politics of Revolution	3-4
POLI SCI 601	Proseminar. Topics in Political Science	3

Public Affairs

PUB AFFR 857	Political Economy of Corruption and Good Governance	3
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Religious Studies

Numerous East Asia-related religious studies courses are available. See cross-listings under East Asian Languages and Literature and Languages and Cultures of Asia

Sociology

SOC 496	Topics in Sociology	3
SOC 918	Seminar in Comparative Sociology of Contemporary Capitalism	3

Theatre and Drama (Asian Theatre)

THEATRE 351	Fundamentals of Asian Stage Discipline	3
THEATRE 526	The Theatres of China and Japan	3
THEATRE 911	Seminar-Problems in Theatre and Drama	3

¹ See course listings for Asian Languages and Cultures; please note that these courses may continue to be listed under East Asian Languages and Literature. **Students interested in the courses offered under Asian Languages and Cultures should be aware that the course numbers for these courses may be changed by the academic year 2016-2017. Students are, therefore, encouraged to contact the Center for East Asian Studies or the Department of Asian Languages and Cultures for clarification.**

² See course listings for Languages and Cultures of Asia.

PEOPLE

Faculty: Professors Davis (Engineering Professional Development), Dong (Design Studies/SOHE), Dunne (Asian Languages and Cultures), Furumoto (Theater and Drama), Kern (Asian Languages and Cultures), Li (Linguistics), McGloin (Asian Languages and Cultures), Mori (Asian Languages and Cultures), Nienhauser (Asian Languages and Cultures), Ohnesorge (Law), Ohnuki-Tierney (Anthropology), Pan (Communication Arts), Phillips (Art History), Sidel (Law), Ridgely (director) (Asian Languages and Cultures), Young (History), Zhou (Anthropology); Associate Professors Cheng (History), Dennis (History), D'Etcheverry (Asian Languages and Cultures), Geyer (Asian Languages and Cultures), Huang (Asian Languages and Cultures), Huntington (Asian Languages and Cultures), Meulenbeld (Asian Languages and Cultures), Miyamoto (Psychology), Raymo (Sociology), Shi (Agricultural and Applied Economics), Thal (History), Zhang (Asian Languages and Cultures); Assistant Professors Chan (History), Choy (Dance/Education), Fan (Theater and Drama), Kim (History), Kinzley (History), Li (Art History), Lim (Asian Languages and Cultures), Murthy (History), Yang (Asian Languages and Cultures), Zhu (Asian Languages and Cultures)

**EUROPEAN STUDIES, GRADUATE/
PROFESSIONAL CERTIFICATE**

The European Studies Program, in cooperation with the Center for European Studies, the Jean Monnet European Union Center of Excellence (JMEUCE), and the DAAD Center for German and European Studies (CGES), promotes knowledge and understanding of Europe both on and off campus. Established in 1968, the program provides integrated interdisciplinary studies on contemporary Europe for both undergraduate

and graduate students. The program brings together scholars on campus interested in different aspects of Europe to discuss topics of mutual interest. More than thirty departments offer courses on Europe (excluding language courses), providing the largest number of courses on any region of the world other than the United States.

The European studies program offers graduate students the opportunity to earn a certificate in European studies. Acquiring the certificate is of value to graduate students who need to demonstrate the breadth of their expertise in European studies when applying for jobs. For example, applicants for such academic positions as a joint appointment with a European studies center or a position within a single discipline but teaching courses focused on Europe (e.g., European politics, European history, or the economics of the European Union) are often required to demonstrate a knowledge of the continent that extends beyond their own discipline.

The structure of the certificate is intended to give students the greatest possible flexibility in developing their own programs. Each student will seek admission to the Graduate School through regular procedures and enroll in the specific major program in which the student intends to pursue a higher degree. The student's program of European coursework must be developed by the student in consultation with the advisor and approved by the chair of European studies. Coursework should consist of at least 15 credits in courses from at least three disciplines that either cover Europe as a whole (such as history of Europe since 1945) or that together cover at least two separate European countries (e.g., modern French history, and German cultural studies). Students must also demonstrate a working knowledge of at least one European language in addition to English. (Acceptable proof of knowledge includes transcripts, test scores, or a language evaluation from a faculty member.) To assure competence in the major discipline, the European studies certificate will only be awarded after a student has completed at least the master's degree in the major program.

Doctoral students may use the certificate to fulfill requirements toward a distributed minor.

FUNDING

Information about funding through the Center for European Studies is available from our website (<http://europe.wisc.edu/outreach-opportunities>). We also encourage our students to explore funding options available through the Institute for Regional and International Studies (IRIS) Awards Office (<https://iris.wisc.edu/funding>).

REQUIREMENTS

The structure of the certificate is intended to give students the greatest possible flexibility in developing their own programs. Each student will seek admission to the Graduate School through regular procedures and enroll in the specific major program in which the student intends to pursue a higher degree. The student's program of European coursework must be developed by the student in consultation with the advisor and approved by the chair of European studies. Coursework should consist of at least 15 credits in courses from at least three disciplines that either cover Europe as a whole (such as history of Europe since 1945) or that together cover at least two separate European countries (e.g., modern French history, and German cultural studies). Students must also demonstrate a working knowledge of at least one European language in addition to English. (Acceptable proof of knowledge includes transcripts,

test scores, or a language evaluation from a faculty member.) To assure competence in the major discipline, the European studies certificate will only be awarded after a student has completed at least the master's degree in the major program.

Doctoral students may use the certificate to fulfill requirements toward a distributed minor.

COURSES

Below is a sampling of regularly offered courses in European studies. Additional courses with significant European content may be offered in any single semester. All civilization, culture, and literature courses offered in any of the European language departments also qualify for the certificate; language, grammar, and conversation courses do not.

Code	Title	Credits
Anthropology		
ANTHRO 309	Prehistoric Europe	3
Art History		
ART HIST/ CLASSICS 300	The Art and Archaeology of Ancient Greece	3-4
ART HIST 302	Greek Sculpture	3-4
ART HIST/ CLASSICS 304	The Art and Archaeology of Ancient Rome	3-4
ART HIST 350	19th Century Painting in Europe	3-4
ART HIST 351	20th Century Art in Europe	3-4
ART HIST 360	Early Modern Art of Northern Europe: Renaissances and Reformations	3
ART HIST 454	Art in Germany, 1900-1945	3-4
ART HIST 515	Proseminar in Medieval Art	3
ART HIST 525	Proseminar in Italian Renaissance Art	3
ART HIST 555	Proseminar in 19th Century European Art	3
ART HIST 556	Proseminar in 20th Century European Art	3
ART HIST/ CLASSICS 700	The Art and Archaeology of Ancient Greece	3
ART HIST/ CLASSICS 704	The Art and Archaeology of Ancient Rome	3
ART HIST 715	Topics in Medieval Art	3
ART HIST 805	Seminar-Ancient Art and Architecture	3
ART HIST 825	Seminar-Italian Renaissance Art	3
ART HIST 855	Seminar-19th Century European Art	3
ART HIST 856	Graduate Seminar in Twentieth Century European Art	3
Communication Arts		
COM ARTS 455	French Film	3
COM ARTS/ ITALIAN 460	Italian Film	3
COM ARTS/ GERMAN 655	German Film	3
Economics		
ECON 666	Issues in International Finance	3-4

English			
ENGL 417	History of the English Language	3	
ENGL/RELIG ST 434	Milton	3	
ENGL/ MEDIEVAL 426	Chaucers Courtly Poetry	3	
ENGL 459	Three American Novelists	3	
ENGL 501	Writing Internship	3	
ENGL/THEATRE 575	British Drama, 1914 to Present	3	
Geography			
GEOG 349	Europe	3	
History			
HISTORY 307	A History of Rome	3-4	
HISTORY 320	Early Modern France, 1500-1715	3-4	
HISTORY 333	The Renaissance	3-4	
HISTORY/ RELIG ST 334	The Reformation	3-4	
HISTORY 350	The First World War and the Shaping of Twentieth-Century Europe	3-4	
HISTORY 351	Seventeenth-Century Europe	3-4	
HISTORY 357	The Second World War	3-4	
HISTORY 359	History of Europe Since 1945	3-4	
HISTORY 361	The Emergence of Mod Britain: England 1485-1660	3-4	
HISTORY 410	History of Germany, 1871 to the Present	3-4	
HISTORY/ RELIG ST 411	The Enlightenment and Its Critics	3	
HISTORY/ SCAND ST 431	History of Scandinavia to 1815	3	
HISTORY 474	European Social History, 1830-1914	3-4	
HISTORY 475	European Social History, 1914-Present	3-4	
HISTORY 514	European Cultural History Since 1870	3-4	
HISTORY/ SCAND ST 577	Contemporary Scandinavia: Politics and History	3-4	
HISTORY 707	Proseminar in Early Modern European History, 1500-1789	3	
HISTORY 805	Seminar-Medieval History	1-3	
HISTORY 837	Seminar-History of Modern Britain and Ireland	1-3	
HISTORY 845	Seminar-Central European History	1-3	
HISTORY 867	Seminar-European Social & Intellectual History	1-3	
HISTORY 868	Seminar in Modern French History	1-3	
HISTORY 891	Proseminar in Modern European History	1-3	
History of Science			
HIST SCI/CLASSICS/ HISTORY/MED HIST/ S&A PHM 561	Greek and Roman Medicine and Pharmacy	3	
HIST SCI 903	Seminar: Medieval, Renaissance, and 17th Century Science	3	
International Business			
INTL BUS/ FRENCH 313	Professional Communication and Culture in the Francophone World	3	
INTL BUS/ FINANCE 445	Multinational Business Finance	3	
Law			
LAW 818	Comparative Law	2-3	
LAW 942	European Union Law	2-3	
Literature in Translation			
LITTRANS/ THEATRE 335	In Translation: The Drama of Henrik Ibsen	3-4	
LITTRANS/ FOLKLORE/ MEDIEVAL 346	In Translation: The Icelandic Sagas	3-4	
LITTRANS 410	In Translation: Special Topics in Italian Literature	3	
LITTRANS 473	Polish Literature (in Translation) since 1863	3	
Music			
MUSIC 411	Survey of Music in the Middle Ages	3	
MUSIC 412	Survey of Music in the Renaissance	3	
MUSIC 413	Survey of Music in the Baroque Era	3	
MUSIC 414	Survey of Music in the Classic Era	3	
MUSIC 415	Survey of Music in the Romantic Era	3	
Philosophy			
PHILOS 454	Classical Philosophers	3	
PHILOS/ CLASSICS 830	Advanced History of Philosophy	3	
Political Science			
POLI SCI 340	The European Union: Politics and Political Economy	3-4	
POLI SCI 538	Politics and Policies in the European Union	3-4	
POLI SCI 659	Politics and Society: Contemporary Eastern Europe	3-4	
Sociology			
SOC/FRENCH/ GERMAN/HISTORY/ POLI SCI 804	Interdisciplinary Western European Area Studies Seminar	3	
SOC 918	Seminar in Comparative Sociology of Contemporary Capitalism	3	
Theatre and Drama			
THEATRE 522	Experimental Drama: The Theatre of Europe 1850-the Present	3	
THEATRE/ENGL 575	British Drama, 1914 to Present	3	
THEATRE/ENGL 731	Advanced Theatre History 500 BC to 1700	3	

LEARNING OUTCOMES

1. Regional expertise: advanced knowledge of the societies and cultures of the region through in-depth understanding of the principal historical, social, political, cultural and scientific forces and conditions that have given rise to the unity and diversity in the region today.

2. Multi-disciplinarity: analyzing contemporary political, economic, and cultural realities in the region from at least three disciplinary perspectives, ideally including humanities, social sciences and sometimes natural science approaches.

3. Depth of knowledge: advanced knowledge of particular facets of life in the region by taking courses on particular sub-regions or countries, by studying a regional language, or by taking at least two courses on the region in one discipline.

4. Research and methods: Students must demonstrate the ability to conduct interdisciplinary research that shows knowledge of research methodologies, demonstrates analytical skills, and the ability to articulate and elaborate research findings.

must take 9 credits from a list of approved courses. Students must take one course from three of the four categories:

1. Global Culture and Humanity
2. Global Commons
3. World Affairs and the Global Economy
4. Human Security and Global Citizenship

Students should consult with an IRIS advisor (<https://iris.wisc.edu/advising/advising-schedule>) for course listings within these categories.

LEARNING OUTCOMES

1. Regional expertise: advanced knowledge of the societies and cultures of the region through in-depth understanding of the principal historical, social, political, cultural and scientific forces and conditions that have given rise to the unity and diversity in the region today.

2. Multi-disciplinarity: analyzing contemporary political, economic, and cultural realities in the region from at least two disciplinary perspectives, ideally including humanities, social sciences and sometimes natural science approaches.

3. Depth of knowledge: advanced knowledge of particular facets of life in the region by taking courses on particular sub-regions or countries, by studying a regional language, or by taking at least two courses on the region in one discipline

4. Research and methods: Students must demonstrate the ability to conduct interdisciplinary research that shows knowledge of research methodologies, demonstrates analytical skills, and the ability to articulate and elaborate research findings.

LATIN AMERICAN, CARIBBEAN, AND IBERIAN STUDIES, DOCTORAL MINOR

Candidates for a Ph.D. degree in other departments may obtain a minor in Latin American, Caribbean and Iberian studies by taking a minimum of 12 credits in graduate courses related to Latin America, the Caribbean, Spain, or Portugal. A list of courses available for LACIS credit is prepared each semester by the program staff. This work is to be done outside the major field of the candidate's doctoral specialization. One course cross-listed with the major may be used for the minor so long as it is not taught by a faculty member from the major department and is not a required course for the major. The LACIS M.A. may be used as a Ph.D. minor, as long as the degree program meets the minor requirements. The LACIS Ph.D. minor is an Option A minor. All Ph.D. minor candidates must consult with the program director or associate director at the time they begin their work for the Ph.D. minor. Certification of proficiency in Spanish or Portuguese is required. Contact the LACIS office for information on language certification.

REQUIREMENTS

A minor in Latin American, Caribbean and Iberian studies consists of at least 12 graduate credits in LACIS-approved coursework.

PEOPLE

Faculty: Ringe (director, Political Science), Brossard (Life Sciences Communication), Covington (European Studies), Ferree (Sociology), Klug (Law), Livorni (French and Italian), Moynihan (Public Affairs), Olds (Geography), Potter (CGES, German), Wolf (Scandinavian Studies)

GLOBAL STUDIES, DOCTORAL MINOR

A doctoral minor in global studies will be of interest to doctoral students who plan for careers in public policy, research, and academia, as well as those interested in careers in government, media, and the private and nonprofit sectors. The minor emphasizes systemic approaches to globalization in an interdisciplinary context, thereby distinguishing itself from existing graduate course work in international studies that emphasize specialization in particular areas of the world (e.g., East Asian studies or African studies) or specific aspects of globalization (e.g., global health or global legal studies). The minor is intended to provide doctoral students with an institutional setting to pursue the study of globalization as a complement to their major degree program.

FUNDING

The IRIS Awards Office manages its own funding opportunities (Scott Kloeck-Jenson Fellowships, IRIS Graduate Fieldwork Awards, Incubator Grants), coordinates the campus component of a number of external programs (Boren Fellowships, Fulbright US Student Program, Fulbright-Hays DDRA, Luce Scholars Program), coordinates IRIS regional center awards such as the Foreign Language and Area Studies (FLAS) Fellowships, assists students, faculty, and staff in exploring funding options, and much more.

Follow us on Twitter (https://twitter.com/uwiris_awards), and contact Mark Lilleleht, Assistant Director for Awards, with questions at awards@iris.wisc.edu, 608-265-6070.

REQUIREMENTS

The minor in Global Studies is 12 credits total. Students who minor in global studies will be required to take the core Global Studies Graduate Seminar (INTL ST 720 Global Studies Seminar) and related course work. In addition to the 3-credit Global Studies Graduate Seminar, students

PEOPLE

Affiliated Faculty:

African Languages and Literature:

Tejumola Olaniyan, Professor

Aliko Songolo, Professor

Samuel England, Assistant Professor

Agricultural and Applied Economics:

Bradford Barham, Professor

Laura Schechter, Associate Professor

Anthropology:

Isabelle C. Druc, Honorary/Associate Fellow

Karen Strier, Professor

Armando Muyolema, Lecturer

Sarah Clayton, Associate Professor

Jerome Camal, Assistant Professor

Falina Enriquez, Assistant Professor

Art:

Jim Escalante, Professor

Douglas Rosenberg, Professor

Henry Drewel, Professor

Jill Casid, Professor

Botany:

Eve Emshwiller, Associate Professor

Kenneth Sytsma, Professor

Donald Waller, Professor

Business School:

Antonio Mello, Professor

Center for Global Health:

Lori DiPrete Brown, Honorary/Associate Fellow

Communication Arts:

Sara L. Mckinnon, Associate Professor

Community and Environmental Sociology:

Samer Alatout, Associate Professor

Gary Green, Professor

Randy Stoecker, Professor

Jane Collins, Professor

Comparative Literature and Folklore Studies:

Beatriz L Botero, Lecturer

Sarah Wells, Assistant Professor

Consumer Science:

Lydia Zepeda, Professor

Counseling Psychology:

Stephen Quintana, Professor

Curriculum and Instruction:

Thomas Popkewitz, Professor

François Victor Tochon, Professor

Dairy Science:

Victor Cabrera, Associate Professor

Michel Wattiaux, Professor

Dance:

Chris Walker, Associate Professor

Design Studies

Carolyn Kallenborn, Associate Professor

Economics :

Maria Muniagurria, Faculty Associate

Educational Policy Studies:

Michael Apple, Professor

Kathryn Moeller, Assistant Professor

Lesley Bartlett, Professor

Engineering:

Paul Block, Assistant Professor

Steven P Loheide, Associate Professor

English:

Roberta Hill, Professor

Jesse Lee Kercheval, Professor

Christa Olson, Associate Professor

Cherene Sherrard-Johnson, Professor

Catherine Vieira, Associate Professor

Environmental Studies:

Adrian Treves, Professor

Lisa Rausch, Associate Researcher

Javier Calderón, Professor

Geography:

Erika Marin-Spiotta, Associate Professor

Sarah Moore, Assistant Professor

Holly Gibbs, Associate Professor

Lisa Naughton-Treves, Professor

Ronald Radano, Professor

Plant Pathology:

Caitilyn Allen, Professor

Political Science:

Erica Simmons, Assistant Professor

Helen Kinsella, Associate Professor

Benjamin Marquez, Professor

Jon Pevehouse, Professor

Jonathan Renshon, Associate Professor

History:

Nan Enstad, Professor

Susan Johnson, Professor

Brenda Plummer, Professor

James Sweet, Professor

Patrick Iber, Assistant Professor

Population Health Sciences:

Jonathan Patz, Professor

Leonelo Bautista, Associate Professor

Ana Martinez-Donate, Honorary Associate/Fellow

Horticulture:

James Nienhuis, Professor

David Spooner, Professor

Claudia Calderon, Assistant Faculty Associate

Sociology:

Patrick Barrett, Assistant Faculty Associate

Jenna Nobles, Associate Professor

Gay Seidman, Professor

Erik Wright, Professor

Human Development and Family Studies:

Lynet Uttal, Professor

International Studies/Journalism:

Jo Ellen Fair, Professor

Spanish & Portuguese:

Grant Armstrong, Assistant Professor

Ksenija Bilbija, Professor

Glen Close, Professor

Ivy Corfis, Professor

Guillermina De Ferrari, Professor

Juan Egea, Professor

Diana Frantzen, Professor

Anna Gemrich, Faculty Associate

Paola Hernández, Associate Professor

David Hildner, Professor

Steven Hutchinson, Professor

Deborra Kaaikiola-Strohbusch, Faculty Associate

Luis Madureira, Professor

Ruben Medina, Professor

Marcelo Pellegrini, Associate Professor

Institute for Biology Education:

Catherine Woodward, Associate Faculty Associate

Journalism & Mass Communication:

Hernando Rojas, Professor

Landscape Architecture:

Sam Dennis Jr., Assistant Professor

Law School:

Alexandra Huneus, Associate Professor

Library:

Paloma Celis-Carbajal, Senior Academic Librarian

Mechanical Engineering:

Tim Osswald, Professor

Medicine and Public Health:

Pablo Gomez, Assistant Professor

David Gaus, Honorary Associate/Fellow

Music:

Guido Podestá, Professor

Rajiv Rao, Associate Professor

Kathryn Sánchez, Professor

Ellen Sapega, Professor

Catherine Stafford, Associate Professor

Fernando Tejedo-Herrero, Associate Professor

Mercedes Alcalá-Galán, Associate Professor

Katarzyna Beilin, Professor

Sarli Mercado, Senior Lecturer

Urban and Regional Planning:

Alfonso Morales, Professor

Carolina S. Sarmiento, Assistant Professor

Veterinary Medicine:

Jorge Osorio, Professor

Zoology

Warren Porter, Professor

LATIN AMERICAN, CARIBBEAN, AND IBERIAN STUDIES, M.A.

The Latin American, Caribbean, and Iberian Studies (LACIS) Program offers three graduate programs: master of arts, a doctoral minor, and a dual degree in law and Latin American, Caribbean, and Iberian studies.

The mission of the graduate program is to provide an interdisciplinary foundation for the study of Latin America, the Caribbean, Spain, and Portugal. The University of Wisconsin–Madison is nationally recognized for excellence in research and teaching on these regions. The LACIS program includes a core faculty of more than 130 members and course offerings in 41 disciplines and professional schools, including agricultural and applied economics, anthropology, business, community and environmental sociology, comparative literature, environmental studies, gender and women's studies, geography, history, law, music, political science, population health, Quechua, Yucatec Maya, sociology, and Spanish and Portuguese.

Many faculty members have received extensive national and international recognition. Faculty research interests include development and labor economics; Andean ethnohistory and ethnology; African Diaspora art; conservation of the neotropics; cultural geography; social history of Latin America; democratic consolidation; Brazilian social stratification; comparative social movements; Luso-Brazilian literature and culture; colonial and modern Latin American literature, film, and culture; Spanish literature from the medieval to the modern period; and political economy. UW–Madison also publishes the journal *Luso-Brazilian Review*.

While the majority of candidates in the program are from the United States, a significant number are from Latin America, the Caribbean, and Iberia. Since 1994, 30 percent of the program's candidates have been Latino/Latin American/Caribbean. Seventy percent have been women. Funding assistance for candidates specializing in Latin America, the

Caribbean, and Iberia includes Title VI Foreign Language and Area Studies (FLAS) fellowships, Helen Firstbrook Franklin Fellowship, Advanced Opportunity Fellowship (if applicable), Latin America course (260) teaching assistantships, and the Tinker-Nave Field Grant Program. Please contact the program office for more information on funding opportunities.

Originally established in the 1930s, the program has a long history of university and federal support. Since 1961, LACIS has been recognized as a National Resource Center (NRC) by the U.S. Department of Education, which provides Title VI support for program activities and for FLAS fellowships. The program has a faculty of extraordinary diversity and across-the-board strength. These strengths encompass not only the classic social science and humanities fields, but also the natural and ecological sciences and the agricultural and professional schools. It is unlikely that any one university exceeds the overall range of UW–Madison's faculty expertise in Latin American, Caribbean, and Iberian studies. The UW–Madison's general excellence is reflected by its consistent ranking among the top ten graduate universities in the United States.

DUAL DEGREE PROGRAM

Candidates interested in earning a dual degree in law and Latin American, Caribbean, and Iberian studies must apply to both programs and must meet the degree requirements for both programs. Applicants should follow normal procedures for admission to the Graduate School. They may, however, substitute LSAT scores for the GRE. The dual degree program can be completed in seven semesters. Typically, the student begins the LACIS portion of the program in the second year of Law School. See the program office for more information on course work. More information can be found on the website (<https://lacis.wisc.edu/programs/dual-degree-in-law-and-lacis>).

ADMISSIONS

Admission to the master's program is competitive and requires a strong undergraduate academic background, a clear demonstration of interdisciplinary interests, and a strong statement of purpose illustrating the applicant's goals. In addition to the online application, applicants must submit to the program: transcript(s) of all undergraduate work, three letters of recommendation, Graduate Record Exam (GRE) scores, a statement of reasons for graduate study, and a current CV. Applications must be received by January 5 for the fall semester.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

TINKER NAVE SHORT TERM FIELD RESEARCH GRANTS

Application Deadline: Summer 2018 Application Deadline is the First Friday of March.

See website (<https://laxis.wisc.edu/funding/for-graduates>) for more details.

FOREIGN LANGUAGE AND AREA STUDIES GRADUATE FELLOWSHIPS (FLAS), (HEA TITLE VI)

See website (<https://flas.wisc.edu>) for more details.

For further information and assistance about financial aid please visit the Office of Student Financial Aid (<https://financialaid.wisc.edu>).

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement	16 credits
Minimum Graduate Coursework Requirement	Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (https://registrar.wisc.edu/course-guide/).
Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.
Assessments and Examinations	Candidates are expected to finish the degree in four semesters of full-time study; after four semesters, the student must petition for extension. Time to degree will be customized for students in dual or articulated degree programs. Students must also petition for part-time (fewer than 6 credits per semester) status.
Language Requirements	Candidates must obtain certification of basic proficiency in Spanish or Portuguese or offer proof of proficiency.

REQUIRED COURSES

At least 6 credits of LACIS/A A E/ANTHRO/C&E SOC/GEOG/HISTORY/ POLI SCI/PORTUG/SOC/SPANISH 982 Interdepartmental Seminar in the Latin-American Area (or equivalent seminar). Remaining courses are chosen in consultation with the advisor.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://laxis.wisc.edu/documents/laxis-grad-handbook-2018>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 6 credits of graduate coursework from other institutions.

UW-Madison Undergraduate

No credits from a UW-Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

Students are allowed to count no more than 6 credits of coursework numbered 300 or above taken as a UW–Madison University Special student. The student would not be allowed to count courses toward the 50% graduate coursework minimum unless taken at the 700 level or above.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

ADVISOR / COMMITTEE

The program director or associate director will be the formal advisor for all students in the program. In addition, students are expected to work with a faculty advisor to complete a final paper to be defended to a three member committee.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence.

OTHER

LACIS has a J.D./M.A. dual degree. Contact the program for more information.

PROFESSIONAL DEVELOPMENT**GRADUATE SCHOOL RESOURCES**

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Demonstrate an understanding of the principal historical, societal, scientific and humanist concerns that are rooted in the realities of the broader Latin American, Caribbean and Iberian regions. These include but are not limited to: knowledge of pre-colonial indigenous societal organizations; the experience of colonialism; the biodiversity of the region; and the regions tumultuous social, economic and political trajectory and the specific challenges these have posed for the peoples of the regions. In particular, students should demonstrate an understanding

of the unique historical trajectory of these regions as the product of the global confluence of various cultural, social, political and economic influences beginning in the late 15th century. This includes not only the especially profound mutual impact of Iberian colonization of the Americas, but also the larger context of European imperial conflict in the Western Hemisphere, the central place of African slavery in the development of the Atlantic economy, and the significant and multifaceted role that the United States has played in shaping Latin America and the Caribbean. Students should recognize how these histories and contemporary realities impact more specific questions, contemporary or historical, and humanist, social scientific or scientific in nature.

2. Within students' more specific area of interest, they should be able to articulate key theoretical and empirical concerns and identify appropriate theoretical approaches to the problem of interest and identify empirical sources that can help to answer that question or problem.
3. Students should demonstrate proficiency, and preferably advanced language ability, in either Spanish or Portuguese. Additional indigenous language learning, such as Kichwa, Quechua, Quichua and Nahuatl, are also encouraged.
4. Demonstrate the ability to conduct interdisciplinary research that: includes a critical literature review; selects appropriate research methodologies; proposes an appropriate research design to collect, analyze, interpret, and present findings; successfully carries out this research plan.
5. Demonstrate the ability to articulate and elaborate their research findings.
6. Recognize and apply principles of ethical and professional conduct. This includes, in particular, an understanding of the ethics of research and professional activities in cross-cultural contexts.

PEOPLE**Affiliated Faculty:**

African Languages and Literature:

Tejumola Olaniyan, Professor

Aliko Songolo, Professor

Samuel England, Assistant Professor

Agricultural and Applied Economics:

Bradford Barham, Professor

Laura Schechter, Associate Professor

Anthropology:

Isabelle C. Druc, Honorary/Associate Fellow

Karen Strier, Professor

Armando Muyolema, Lecturer

Sarah Clayton, Associate Professor

Jerome Camal, Assistant Professor

Falina Enriquez, Assistant Professor

Art:

Jim Escalante, Professor

Douglas Rosenberg, Professor

Henry Drewel, Professor

Jill Casid, Professor

Botany:

Eve Emshwiller, Associate Professor

Kenneth Sytsma, Professor

Donald Waller, Professor

Business School:

Antonio Mello, Professor

Center for Global Health:

Lori DiPrete Brown, Honorary/Associate Fellow

Communication Arts:

Sara L. Mckinnon, Associate Professor

Community and Environmental Sociology:

Samer Alatout, Associate Professor

Gary Green, Professor

Randy Stoecker, Professor

Jane Collins, Professor

Comparative Literature and Folklore Studies:

Beatriz L Botero, Lecturer

Sarah Wells, Assistant Professor

Consumer Science:

Lydia Zepeda, Professor

Counseling Psychology:

Stephen Quintana, Professor

Curriculum and Instruction:

Thomas Popkewitz, Professor

François Victor Tochon, Professor

Dairy Science:

Victor Cabrera, Associate Professor

Michel Wattiaux, Professor

Dance:

Chris Walker, Associate Professor

Design Studies

Carolyn Kallenborn, Associate Professor

Economics :

Maria Muniagurria, Faculty Associate

Educational Policy Studies:

Michael Apple, Professor

Kathryn Moeller, Assistant Professor

Lesley Bartlett, Professor

Engineering:

Paul Block, Assistant Professor

Steven P Loheide, Associate Professor

English:

Roberta Hill, Professor

Jesse Lee Kercheval, Professor

Christa Olson, Associate Professor

Cherene Sherrard-Johnson, Professor

Catherine Vieira, Associate Professor

Environmental Studies:

Adrian Treves, Professor

Lisa Rausch, Associate Researcher

Geography:

Erika Marin-Spiotta, Associate Professor

Sarah Moore, Assistant Professor

Holly Gibbs, Associate Professor

Lisa Naughton-Treves, Professor

History:

Nan Enstad, Professor

Susan Johnson, Professor

Brenda Plummer, Professor

James Sweet, Professor

Patrick Iber, Assistant Professor

Horticulture:

James Nienhuis, Professor

David Spooner, Professor

Claudia Calderon, Assistant Faculty Associate

Human Development and Family Studies:

Lynet Uttal, Professor

International Studies/Journalism:

Jo Ellen Fair, Professor

Institute for Biology Education:

Catherine Woodward, Associate Faculty Associate

Journalism & Mass Communication:

Hernando Rojas, Professor

Landscape Architecture:

Sam Dennis Jr., Assistant Professor

Law School:

Alexandra Huneus, Associate Professor

Library:

Paloma Celis-Carbajal, Senior Academic Librarian

Mechanical Engineering:

Tim Osswald, Professor

Medicine and Public Health:

Pablo Gomez, Assistant Professor

David Gaus, Honorary Associate/Fellow

Music:

Javier Calderón, Professor

Ronald Radano, Professor

Plant Pathology:

Caitilyn Allen, Professor

Political Science:

Erica Simmons, Assistant Professor

Helen Kinsella, Associate Professor

Benjamin Marquez, Professor

Jon Pevehouse, Professor

Jonathan Renshon, Associate Professor

Population Health Sciences:

Jonathan Patz, Professor

Leonelo Bautista, Associate Professor

Ana Martinez-Donate, Honorary Associate/Fellow

Sociology:

Patrick Barrett, Assistant Faculty Associate

Jenna Nobles, Associate Professor

Gay Seidman, Professor

Erik Wright, Professor

Spanish & Portuguese:

Grant Armstrong, Assistant Professor

Ksenija Bilbija, Professor

Glen Close, Professor

Ivy Corfis, Professor

Guillermina De Ferrari, Professor

Juan Egea, Professor

Diana Frantzen, Professor

Anna Gemrich, Faculty Associate

Paola Hernández, Associate Professor

David Hildner, Professor

Steven Hutchinson, Professor

Deborra Kaaikiola-Strohbusch, Faculty Associate

Luis Madureira, Professor

Ruben Medina, Professor

Marcelo Pellegrini, Associate Professor

Guido Podestá, Professor

Rajiv Rao, Associate Professor

Kathryn Sánchez, Professor

Ellen Sapega, Professor

Catherine Stafford, Associate Professor

Fernando Tejedo-Herrero, Associate Professor

Mercedes Alcalá-Galán, Associate Professor

Katarzyna Beilin, Professor

Sarli Mercado, Senior Lecturer

Urban and Regional Planning:

Alfonso Morales, Professor

Carolina S. Sarmiento, Assistant Professor

Veterinary Medicine:

Jorge Osorio, Professor

Zoology

Warren Porter, Professor

RUSSIAN, EAST EUROPEAN AND CENTRAL ASIAN STUDIES, DOCTORAL MINOR

REQUIREMENTS

Recognition of interdisciplinary training at the graduate level can be acquired with a REECAS certificate. Doctoral minor requirements in specific fields can also be fulfilled under the REECAS program. The requirements for a doctoral minor under Option A (external minor) may be satisfied by completing 9 credits of graduate courses in Russian, East European and Central Asian studies. These 9 credits must be distributed over at least two departments outside the student's major department. Students should contact the program office for specific information regarding these requirements. Doctoral students may not earn both the REECAS graduate/professional certificate and the REECAS doctoral minor.

LEARNING OUTCOMES

1. Regional expertise: advanced knowledge of the societies and cultures of the region through in-depth understanding of the principal historical, social, political, cultural and scientific forces and conditions that have given rise to the unity and diversity in the region today.
2. Multi-disciplinarity: analyzing contemporary political, economic, and cultural realities in the region from at least two disciplinary perspectives, ideally including humanities, social sciences and sometimes natural science approaches.
3. Depth of knowledge: advanced knowledge of particular facets of life in the region by taking courses on particular sub-regions or countries, by studying a regional language, or by taking at least two courses on the region in one discipline
4. Research and methods: Students must demonstrate the ability to conduct interdisciplinary research that shows knowledge of research methodologies, demonstrates analytical skills, and the ability to articulate and elaborate research findings.

PEOPLE

Faculty: Professors Gerber (chair) (Sociology), Belodubrovskaya (Communication Arts), Bethea (Slavic Languages), Brenner (Jewish Studies), Buenger (Art History), Chamberlain (History), Ciancia (History), Dale (Art History), Danaher (Slavic Languages), Derin (Languages and Cultures of Asia), Dolinin (Slavic Languages), DuBois (Scandinavian Studies), Evans-Romaine (Slavic Languages), Filipowicz (Slavic Languages), Gehlbach (Political Science), Hendley (Law, Political Science), Herrera (Political Science), Hirsch (History), Hollander (Jewish Studies), Johnson (Educational Leadership and Policy Analysis), Kaiser (Geography), Kepley (Communication Arts), Kydd (Political Science), Lapina (Slavic Languages), Livanos (Comparative Literature), Longinovic (Slavic Languages), McDonald (History), Michels (History), Miernowska (Slavic Languages), Neville (History), Radeloff (Forest and Wildlife Ecology), Reynolds (Slavic Languages), Schamiloglu (Languages and Cultures of Asia), Shevelenko (Slavic), Tishler (CREECA,

Slavic Languages), Tumarkin (Slavic Languages), van de Water (Slavic Languages), Wink (History)

RUSSIAN, EAST EUROPEAN AND CENTRAL ASIAN STUDIES, GRADUATE/PROFESSIONAL CERTIFICATE

The graduate/professional certificate in REECAS provides graduate students with a general background in the areas of anthropology, economics, foreign policy, geography, government and politics, history, language and literature, law, and sociology. It also provides specific knowledge about one of these areas. With its emphasis on interdisciplinary study, a REECAS certificate enhances the training of Ph.D. candidates who wish to teach and do research at the college level, and serves the needs of M.A. and Ph.D. students who wish to make a career in broadcasting, government service, journalism, library work, or other professions requiring a well-rounded acquaintance with this diverse and highly important area.

Although there is a certain amount of flexibility built into the REECAS certificate to select courses and a language involving Eastern Europe other than Russian, students seeking a career in a field connected with REECAS would do best to combine the study of another language with Russian. Czech, Finnish, Polish, Russian, Serbo-Croatian, Turkish/Azeri, and Uzbek are offered regularly; Bulgarian, Kazak, and Romanian may be taught from time to time. The certificate student, in consultation with the graduate advisor, must choose an academically coherent group of courses which focuses on a specific geographic area and language.

REQUIREMENTS

To receive the certificate, a student must take 12 credits of required courses distributed over three programs. Of these required courses, one must be a seminar in which a research paper is written on a topic approved by the major professor. The student must demonstrate a working knowledge of one language of Eastern Europe or the former Soviet Union before beginning the second year of REECAS and will be expected to write the seminar paper utilizing original source material in the target language(s). Students should contact the program office for specific information regarding these requirements.

LEARNING OUTCOMES

1. Regional expertise: advanced knowledge of the societies and cultures of the region through in-depth understanding of the principal historical, social, political, cultural and scientific forces and conditions that have given rise to the unity and diversity in the region today.
2. Multi-disciplinarity: analyzing contemporary political, economic, and cultural realities in the region from at least two disciplinary perspectives, ideally including humanities, social sciences and sometimes natural science approaches.
3. Depth of knowledge: advanced knowledge of particular facets of life in the region by taking courses on particular sub-regions or countries, by

studying a regional language, or by taking at least two courses on the region in one discipline

4. Research and methods: Students must demonstrate the ability to conduct interdisciplinary research that shows knowledge of research methodologies, demonstrates analytical skills, and the ability to articulate and elaborate research findings.

PEOPLE

Faculty: Professors Gerber (chair) (Sociology), Belodubrovskaya (Communication Arts), Bethea (Slavic Languages), Brenner (Jewish Studies), Buenger (Art History), Chamberlain (History), Cincia (History), Dale (Art History), Danaher (Slavic Languages), Derin (Languages and Cultures of Asia), Dolinin (Slavic Languages), DuBois (Scandinavian Studies), Evans-Romaine (Slavic Languages), Filipowicz (Slavic Languages), Gehlbach (Political Science), Hendley (Law, Political Science), Herrera (Political Science), Hirsch (History), Hollander (Jewish Studies), Johnson (Educational Leadership and Policy Analysis), Kaiser (Geography), Kepley (Communication Arts), Kydd (Political Science), Lapina (Slavic Languages), Livanos (Comparative Literature), Longinovic (Slavic Languages), McDonald (History), Michels (History), Miernowska (Slavic Languages), Neville (History), Radeloff (Forest and Wildlife Ecology), Reynolds (Slavic Languages), Schamiloglu (Languages and Cultures of Asia), Shevelenko (Slavic), Tishler (CREECA, Slavic Languages), Tumarkin (Slavic Languages), van de Water (Slavic Languages), Wink (History)

RUSSIAN, EAST EUROPEAN AND CENTRAL ASIAN STUDIES, M.A.

The master of arts degree program in Russian, East European and Central Asian studies provides interdisciplinary area studies training for emerging professionals and future leaders in business, development, government, journalism, law, publishing, and the military. The curriculum is designed to promote a broad understanding of the cultural, political, economic, social, and historical factors that have shaped the development of societies in Eurasia, Russia, and Central and Eastern Europe; mastery in Russian, East European, or Central Asian languages at a level necessary for doing advanced research on and professional work in the region; and knowledge of methodological and analytical approaches of different disciplines that will contribute to a better understanding of the region and will prepare students for conducting advanced research. The program requires both area studies and language training.

The M.A. program is designed to be completed in three semesters, but motivated students who enter with prior language study and commit to intensive summer coursework have the option of completing the course of study within 12 calendar months. Students will work closely with the M.A. advisor, who serves as their primary graduate studies advisor, to ensure that their course of study is both coherent and sufficiently interdisciplinary.

ADMISSIONS

Students entering the master's program must have a bachelor's degree from an accredited institution and provide evidence of academic achievement and intellectual ability, including a minimum total grade point average of 3.0 (on a 4.0 scale) and a 3.4 in related area courses,

letters of recommendation, and strong scores on the Graduate Record Exam (GRE). There is no minimum admission requirement for language, but students are strongly advised to complete two years of area language study before entering the program.

Applicants for admission to the M.A. degree program in Russian, East European and Central Asian studies should submit an online application. The following materials are required: statement of purpose, official transcripts from all postsecondary institutions attended, three letters of recommendation, Graduate Record Exam (GRE) scores, language questionnaire, and application for university fellowships for incoming students. Speakers of English as a second language must submit Test of English as a Foreign Language (TOEFL), or International English Language Testing System (IELTS) scores as well.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Each year a faculty committee selects a limited number of deserving graduate students (in any field of study) for Foreign Language and Area Studies (FLAS) Fellowships. Applicants must be citizens or permanent residents of the United States and must demonstrate their commitment to the study of a language of Russia, Eastern Europe, or Central Asia, and to related area studies topics. Applications and supporting materials for the FLAS fellowship competition must be submitted by approximately February 15 each year. For more information and an application, see Foreign Language & Area Studies (FLAS) Fellowships (<http://flas.wisc.edu>).

Students interested in studying Polish may be eligible to apply for a Michael and Emily Lapinski fellowship (<https://gns.wisc.edu/lapinski-scholarship>). The annual deadline is March 1. Please contact the Slavic program for more information.

CREECA also nominates eligible incoming graduate students in its M.A. program for the Advanced Opportunity Fellowship (for targeted students). To be considered for university funding, all application materials must be received by the early January deadline indicated on the CREECA M.A. application form.

A limited number of teaching assistantships and project assistantships may be available in CREECA and in specific departments that offer high-enrollment courses on REECAS. Information about these assistantships can be obtained by writing or calling CREECA and the respective departments. In addition to these opportunities, other fellowships and financial assistance are available outside CREECA. For further

information, incoming graduate students should write directly to the appropriate department or organization.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	Yes

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Contact the program for information on required assessments and examinations.

Language Requirements Contact the program for information on any language requirements.

REQUIRED COURSES

In addition to language classes each term, students will be required to complete a minimum of 22 non-language (area studies) credits from the course list to be distributed as follows:

- Seven courses in Russian, East European and Central Asian studies at or above the 300 level (21 credits). These courses must be distributed over at least three departments. At least 50% of credits applied toward the graduate degree credit requirement must be with courses designed for graduate work. Courses with the graduate level coursework attribute are identified and searchable in the University's Course Guide (http://public.my.wisc.edu/portal/f/u1241s4/p/CourseGuide-Browse-Courses.u1241n31/detached/render.uP?pCm=view&pP_action=advancedSearch&pP_form-submit=true).
- At least 6 of these credits (two courses) must be graduate-level **seminars** (700 through 900 level). REECAS M.A. students are expected to use original language source material in their graduate seminar papers.
- A 1-credit "Introduction to REECAS" module (SLAVIC 755 Topics in Slavic Literature). The course number of this module varies, depending on the home department of the faculty director of CREECA. Students are required to attend the weekly CREECA lecture series and to write four short essays based on the content of those lectures. Papers are read and evaluated by the CREECA director and associate director.
- Students may elect to write a master's thesis, but this is not required. This 3-credit, faculty-supervised, independent research course could count toward the required 22 non-language credits, but could not take the place of a required graduate-level seminar. The master's thesis will demonstrate the student's ability to engage in original research in his or her chosen field, including the ability to use original-language material.

Language learning is an integral part of the program, and students will be required to enroll in language courses each term. Students already proficient in their main language will be expected to choose another Slavic or Central Eurasian language for the duration of their program. For degree completion, students must have a minimum of two years of university-level study (or the equivalent) of a regional language with at least three years of study strongly recommended. During the academic year, the program offers Czech, Finnish, Kazak, Persian, Polish, Russian, Bosnian/Croatian/Serbian, and Turkish (Turkish–Azeri).

Courses

Code	Title	Credits
Agricultural and Applied Economics		
A A E/ECON/ REAL EST/ URB R PL 306	The Real Estate Process	3

A A E/INTL ST 374	The Growth and Development of Nations in the Global Economy	3	HISTORY/ MEDIEVAL/ RELIG ST 309	The Crusades: Christianity and Islam	3-4
A A E/ECON 474	Economic Problems of Developing Areas	3	HISTORY/ MEDIEVAL 313	Introduction to Byzantine History and Civilization	3-4
Anthropology			HISTORY/ MEDIEVAL 314	Problems in Byzantine History and Civilization ¹	3-4
ANTHRO 330	Topics in Ethnology ¹	3-4	HISTORY 357	The Second World War	3-4
ANTHRO 369	Peoples and Cultures of Central and Eastern Europe	3-4	HISTORY 359	History of Europe Since 1945	3-4
ANTHRO 606	Ethnicity, Nations, and Nationalism ¹	3-4	HISTORY/ JEWISH 416	Eastern European Jews in the United States, 1880s-1930s	3-4
ANTHRO 690	Problems in Anthropology ¹	3-4	HISTORY 417	History of Russia	3-4
Art History			HISTORY 418	History of Russia	3-4
ART HIST 310	Icons, Religion, and Empire: Early Christian and Byzantine Art, ca. 200-1453	3-4	HISTORY 419	History of Soviet Russia	3-4
ART HIST 351	20th Century Art in Europe	3-4	HISTORY 420	Russian Social and Intellectual History	3-4
ART HIST 556	Proseminar in 20th Century European Art ¹	3	HISTORY 424	The Soviet Union and the World, 1917-1991	3-4
ART HIST 805	Seminar-Ancient Art and Architecture ¹	3	HISTORY 425	History of Poland and the Baltic Area	3-4
ART HIST 815	Seminar-Medieval Art ¹	3	HISTORY 434	American Foreign Relations, 1901 to the Present	3-4
ART HIST 856	Graduate Seminar in Twentieth Century European Art ¹	3	HISTORY/ RELIG ST 439	Islamic History From the Origin of Islam to the Ottoman Empire	3-4
Communication Arts			HISTORY 475	European Social History, 1914-Present	3-4
COM ARTS 352	Film History to 1960	3	HISTORY 500	Reading Seminar in History ¹	3
COM ARTS 456	Russian and Soviet Film	3	HISTORY/CURRIC/ JEWISH 515	Holocaust: History, Memory and Education	3
COM ARTS 463	Avant-Garde Film	3	HISTORY/JEWISH/ RELIG ST 529	Intellectual and Religious History of European Jewry, 1648-1939	4
COM ARTS 958	Seminar in Film History ¹	2-3	HISTORY 540	Balkans and Middle East, 1700-1918: The Rise of National States	3-4
Economics			HISTORY/HIST SCI/ MED HIST/ MEDIEVAL/ S&A PHM 562	Byzantine Medicine and Pharmacy	3
ECON/A A E/ REAL EST/ URB R PL 306	The Real Estate Process	3	HISTORY 600	Advanced Seminar in History ¹	3
ECON 364	Survey of International Economics	3-4	HISTORY 753	Seminar-Comparative World History ¹	1-3
ECON 390	Contemporary Economic Issues ¹	3	HISTORY/FRENCH/ GERMAN/POLI SCI/ SOC 804	Interdisciplinary Western European Area Studies Seminar ¹	3
ECON 467	International Industrial Organizations ¹	3-4	HISTORY 849	Seminar-Topics in History of Imperial Russia, 1649-1917	1-3
ECON/A A E 474	Economic Problems of Developing Areas ¹	3	HISTORY 850	Smr-Hist of the Soviet Union & Modern Hist of E Central Europe	1-3
ECON/SOC 663	Population and Society ¹	3	HISTORY/ RELIG ST 858	Seminar in Problems of Islamic History	2-3
Folklore			HISTORY 891	Proseminar in Modern European History	1-3
FOLKLORE/ LITTRANS 347	In Translation: Kalevala and Finnish Folk-Lore	3-4	International Business		
FOLKLORE/ RELIG ST 352	Shamanism	3	INTL BUS 365	Contemporary Topics ¹	1-3
FOLKLORE/ SCAND ST 443	Sami Culture, Yesterday and Today	4	INTL BUS/ REAL EST 430	International Real Estate ¹	3
FOLKLORE/ SLAVIC 444	Slavic and East European Folklore	3	History		
FOLKLORE 460	Folk Epics ¹	3			
Geography					
GEOG 318	Introduction to Geopolitics	3			
GEOG 353	Russia and the NIS-Topical Analysis	3			
GEOG 518	Power, Place, Identity ¹	3			
GEOG 918	Seminar in Political Geography ¹	2-3			

INTL BUS/OTM 755	International Operations: Problems and Administration	3	POLI SCI 948	Seminar: Topics in Comparative Politics ¹	3
Journalism and Mass Communication			POLI SCI 949	Seminar-Post Communist Politics	3
JOURN 620	International Communication ¹	4	Slavic Languages		
JOURN 621	Mass Communication in Developing Nations ¹	4	SLAVIC 302	Zarys historii literatury polskiej	3
Languages and Cultures of Asia			SLAVIC/ RELIG ST 325	Eastern Christianity/Russian Orthodoxy in a Global Context	3
LCA 314	Literatures of Central Asia	3	SLAVIC 342	Uvod u srpsku i hrvatsku literaturu	3
LCA 357		3	SLAVIC 350	Special Topics in Russian Language, Literature, and Culture	3
LCA/AFRICAN/ RELIG ST 370	Islam: Religion and Culture	4	SLAVIC 405	Women in Russian Literature	3-4
LCA 472		3	SLAVIC 420	Chekhov	3-4
LCA 579		3	SLAVIC 421	Gogol	3-4
LCA 610		3	SLAVIC 422	Dostoevsky	3-4
LCA 614		3	SLAVIC 424	Tolstoy	3-4
LCA 615	Writing Travels ¹	3	SLAVIC 433	History of Russian Culture	3
LCA 850		3	SLAVIC 434	Contemporary Russian Culture	3
Law			SLAVIC 439	Russia Today in Literature and Film	4
LAW 828	International Transactions	2-3	SLAVIC 440	Soviet Literature	3-4
LAW 918	Selected Problems in International Law-Seminar ¹	2-3	SLAVIC 449	Istorija srpske i hrvatske literature	3
LAW 919	The Holocaust: Facts, Trials, Verdicts, Post-Verdicts	2	SLAVIC 454	Moderna srpska i hrvatska literatura	3
LAW 942	European Union Law	2-3	SLAVIC 470	Historia literatury polskiej do roku 1863	3
Literature in Translation			SLAVIC 472	Historia literatury polskiej po roku 1863	3
LITTRANS/ FOLKLORE 347	In Translation: Kalevala and Finnish Folk-Lore	3-4	SLAVIC/ THEATRE 532	History of Russian Theatre	3
LITTRANS 455	Modern Serbian and Croatian Literature in Translation	3	SLAVIC 701	Survey of Old Russian Literature	2
LITTRANS 473	Polish Literature (in Translation) since 1863	3	SLAVIC 702	Eighteenth-Century Russian Literature	2
Political Science			SLAVIC 705	Special Topics in Russian Language/Linguistics	3
POLI SCI 334	Russian Politics	3-4	SLAVIC 755	Topics in Slavic Literature	1-3
POLI SCI 340	The European Union: Politics and Political Economy	3-4	SLAVIC 801	Slavic Critical Theory and Practice	3
POLI SCI 351	Politics of the World Economy	3-4	SLAVIC 802	The Structure of Russian	2
POLI SCI 401	Selected Topics in Political Science ¹	3-4	SLAVIC 803	Introduction to Old Church Slavonic and the History of Russian Literary Language	2
POLI SCI 421	The Challenge of Democratization	3-4	SLAVIC 804	Methods of Teaching Slavic Languages	2
POLI SCI/ INTL ST 439	The Comparative Study of Genocide	3-4	SLAVIC 820	College Teaching of Russian	1
POLI SCI 534	Socialism and Transitions to the Market	3-4	Scandinavian Studies		
POLI SCI 561	Radical Political Theory	3-4	SCAND ST/ FOLKLORE 443	Sami Culture, Yesterday and Today	4
POLI SCI/ RELIG ST 618	Political Islam	3-4	SCAND ST/ MEDIEVAL 444	Kalevala and Finnish Folk-Lore	4
POLI SCI 654	Politics of Revolution	3-4	Sociology		
POLI SCI 659	Politics and Society: Contemporary Eastern Europe	3-4	SOC 496	Topics in Sociology ¹	1-3
POLI SCI/FRENCH/ GERMAN/HISTORY/ SOC 804	Interdisciplinary Western European Area Studies Seminar	3	SOC 614		3
POLI SCI 814	Social Identities: Definition and Measurement ¹	3	SOC 621	Class, State and Ideology: an Introduction to Marxist Social Science ¹	3
POLI SCI 854	Nationalism and Ethnic Conflict	3	SOC 633	Social Stratification ¹	3

SOC/FRENCH/ GERMAN/HISTORY/ POLI SCI 804	Interdisciplinary Western European Area Studies Seminar ¹	3
SOC/C&E SOC 929	Seminar: Class Analysis and Historical Change	3
Theatre and Drama		
THEATRE/ SLAVIC 532	History of Russian Theatre	3
THEATRE 911	Seminar-Problems in Theatre and Drama ¹	2-3

¹ When topic is Russia, Eastern Europe, or Central Asia.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 9 credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

With program approval, students are allowed to count no more than 7 credits of coursework numbered 300 or above taken as a UW–Madison undergraduate student. Coursework earned five or more years prior to admission to a Master's degree is not allowed to satisfy requirements.

UW–Madison University Special

With program approval, students are allowed to count no more than 9 credits of coursework numbered 300 or above taken as a UW–Madison University Special student. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree,

the Graduate School expects them to meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor.

An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Accelerated language study available during summer. We encourage qualified US citizens and permanent residents to apply for the Foreign Language and Area Studies (FLAS) fellowship through CREECA. FLAS applications are due on or near February 15 of each year; please check flas.wisc.edu for updates. The application form for FLAS is separate from the application for admission. We regret that other sources of funding, such as teaching assistantships and project assistantships, are limited.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Demonstrate an understanding of the cultural, political, economic, social, and historical factors that have shaped the development of societies in Eurasia, Russia, and East and Central Europe.
2. Articulate, critique, and/or elaborate the theories, research methods, and approaches to inquiry in one or more of the disciplines represented in the interdisciplinary field of Russian, East European, and Central Asian studies (REECAS).
3. Identify sources and assemble evidence pertaining to questions or challenges in REECAS.
4. Demonstrate an understanding of Russian, East European, and Central Asian studies in a historical, social, or global context.

5. Select and utilize appropriate methodologies and practices in one or more of the disciplines represented in the interdisciplinary field of REECAS.
6. Evaluate and synthesize information pertaining to questions or challenges in REECAS and should communicate clearly in written and spoken work in ways appropriate to REECAS.
7. Recognizes and apply principles of ethical and professional conduct in the context of Russian, East European, and Central Asian studies.
8. (Language proficiency) Develop speaking, listening, writing, and reading skills in one or more of the languages of Russia, East and Central Europe, and Central Eurasia, and integrate these skills to communicate in a variety of social and academic situations.

PEOPLE

Faculty: Professors Gerber (chair) (Sociology), Belodubrovskaya (Communication Arts), Bethea (Slavic Languages), Brenner (Jewish Studies), Buenger (Art History), Chamberlain (History), Ciancia (History), Dale (Art History), Danaher (Slavic Languages), Derin (Languages and Cultures of Asia), Dolinin (Slavic Languages), DuBois (Scandinavian Studies), Evans-Romaine (Slavic Languages), Filipowicz (Slavic Languages), Gehlbach (Political Science), Hendley (Law, Political Science), Herrera (Political Science), Hirsch (History), Hollander (Jewish Studies), Johnson (Educational Leadership and Policy Analysis), Kaiser (Geography), Kepley (Communication Arts), Kydd (Political Science), Lapina (Slavic Languages), Livanos (Comparative Literature), Longinovic (Slavic Languages), McDonald (History), Michels (History), Miernowska (Slavic Languages), Neville (History), Radeloff (Forest and Wildlife Ecology), Reynolds (Slavic Languages), Schamiloglu (Languages and Cultures of Asia), Shevelenko (Slavic), Tishler (CREECA, Slavic Languages), Tumarkin (Slavic Languages), van de Water (Slavic Languages), Wink (History)

SOUTHEAST ASIAN STUDIES, DOCTORAL MINOR

ADMISSIONS

The doctoral minor in Southeast Asian studies is offered to students who are enrolled in a doctoral program at the university and are interested in focusing their disciplinary program on Southeast Asia. Students interested in obtaining this minor should first consult with their disciplinary adviser to clarify the type of minor required and then consult with the center's associate director, who serves as the advisor for the minor in Southeast Asian studies.

REQUIREMENTS

The minor requires a minimum of 12 credits in departments outside the student's major and must be approved in advance by the center director in consultation with a faculty associate of the center.

PEOPLE

Faculty: Professors Bowie (Anthropology), Cowell (African Languages & Literature), Coxhead (Agricultural & Applied Economics), Gade (Nelson Institute for Environmental Studies), Gunther (Journalism & Mass Communications), Hansen (center director) (History), Macken (Linguistics), A. McCoy (History), Olds (Geography), Rafferty (Asian Languages & Cultures), Sidel (Law), Winichakul (History), Zhou (Anthropology); Associate Professors Nobles (Sociology); Assistant Professors Baird (Geography), Choy (Dance/Asian American Studies), Ho (Curriculum and Instruction/Education), Kim (Anthropology); Faculty Associates Barnard (Asian Languages & Cultures), Cullinane (History/Southeast Asian Studies), M. McCoy (Communication Arts/Southeast Asian Studies); Lecturers Chanprasert-Elbow (Asian Languages & Cultures), Dinh (Asian Languages & Cultures), Lee (Asian Languages & Cultures), Zamar (Asian Languages & Cultures); Librarian Ashmun (Southeast Asia Collection, Memorial Library)

SOUTHEAST ASIAN STUDIES, GRADUATE/PROFESSIONAL CERTIFICATE

REQUIREMENTS

The graduate/professional certificate in Southeast Asian studies is awarded to graduate students in other degree programs who are interested in documenting their advanced training in Southeast Asian studies. It requires the completion of 20 credits from the Southeast Asian studies core courses, approved by the center's director. Doctoral students may not earn both the doctoral minor and graduate/professional certificate in Southeast Asian studies.

PEOPLE

Faculty: Professors Bowie (Anthropology), Cowell (African Languages & Literature), Coxhead (Agricultural & Applied Economics), Gade (Nelson Institute for Environmental Studies), Gunther (Journalism & Mass Communications), Hansen (center director) (History), Macken (Linguistics), A. McCoy (History), Olds (Geography), Rafferty (Asian Languages & Cultures), Sidel (Law), Winichakul (History), Zhou (Anthropology); Associate Professors Nobles (Sociology); Assistant Professors Baird (Geography), Choy (Dance/Asian American Studies), Ho (Curriculum and Instruction/Education), Kim (Anthropology); Faculty Associates Barnard (Asian Languages & Cultures), Cullinane (History/Southeast Asian Studies), M. McCoy (Communication Arts/Southeast Asian Studies); Lecturers Chanprasert-Elbow (Asian Languages & Cultures), Dinh (Asian Languages & Cultures), Lee (Asian Languages & Cultures), Zamar (Asian Languages & Cultures); Librarian Ashmun (Southeast Asia Collection, Memorial Library)

SOUTHEAST ASIAN STUDIES, M.A.

The M.A. degree in Southeast Asian studies is an interdisciplinary program designed to meet the unique needs of two broad groups of students: those seeking certification of area expertise en route to a

disciplinary doctoral degree and those seeking a terminal M.A. en route to a wide range of careers in Southeast Asia, including employment in business, journalism, and various government and international organizations. The program requires two years of coursework (or the equivalent) in a Southeast Asian language and 30 graduate credits in Southeast Asian studies courses.

The Center for Southeast Asian Studies administers a formal graduate program in Southeast Asian studies and facilitates interdisciplinary study on Southeast Asia in intercollege, professional, and other degree programs throughout the university. The Southeast Asian studies program provides students with the opportunity to concentrate their study of this dynamic region in several disciplines and professional areas: anthropology, communications (journalism), development, education, economics, environmental studies, geography, history, linguistics, literature, music and dance (performing arts), political science, public health, religion, sociology, and urban and regional planning, as well as natural resources, business, and law, and public policy. Faculty expertise and library holdings are particularly strong for in-depth study of Cambodia, Indonesia, Laos, Philippines, Thailand, and Vietnam. The goal of the program is to provide students with a strong area and language background on Southeast Asia and to prepare them for a range of academic and professional careers.

Language study is a critical component in area studies, and the center encourages students to develop proficiency in at least one Southeast Asian language. During the academic year, instruction is offered through the Department of Asian Languages and Cultures in five Southeast Asian languages: Filipino (Tagalog), Hmong, Indonesian, Thai, and Vietnamese. Each language is offered at two or more levels of instruction, with advanced readings and literature courses available in Indonesian. The center also facilitates participation in the Southeast Asian Studies Summer Institute (SEASSI), which provides instruction during the summers at multiple levels in eight languages of the region: Burmese, Filipino, Hmong, Indonesian/Malaysian, Javanese, Khmer, Lao, Thai, and Vietnamese, and depending on enrollments, Javanese. Though SEASSI is hosted by the center and based in Madison, it is open to students from anywhere. More information is available on the SEASSI website (<http://seassi.wisc.edu>).

COURSES

Interdisciplinary courses may be taken from many departments. Courses must contain a minimum of 25 percent Southeast Asia content to be counted for all the graduate programs. For a more complete and up-to-date listing of currently available courses, contact the Center for Southeast Asian Studies. Because the instructors and contents of many courses may change over time (especially for graduate level topics courses and seminars), students should consult the Center for Southeast Asian Studies for confirmation on whether a course may count for the M.A. degree, the graduate certificate, or the doctoral minor.

ADMISSIONS

Applicants for admission to the M.A. degree program in Southeast Asian Studies should submit the online application on the Graduate School website. The following materials are required and should be submitted to the center: statement of purpose, official transcripts of all undergraduate and graduate study, three references, and Graduate Record Exam (GRE) scores for U.S. citizens; most international students are also required to submit Test of English as a Foreign Language (TOEFL) or International

English Language Testing System (IELTS) scores (for recommended test scores, see the Graduate School website).

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

The center offers two graduate-level fellowships each year: Foreign Language and Area Studies (FLAS) fellowships, funded by the U.S. Department of Education (Title VI); and Center Fellowships, funded by the center's Mellon endowment. Both fellowships provide full tuition and a monthly stipend and are awarded to deserving graduate students (in any discipline) with a strong commitment to the study of Southeast Asia. The center also provides Field Research Grants to be used to support doctoral dissertation and pre-dissertation research on Southeast Asia. Applicants for FLAS fellowships must be citizens or permanent residents of the U.S. and must apply to study one of the languages offered during the academic year: Filipino, Hmong, Indonesian, Thai, or Vietnamese. Center fellowships are generally awarded by semester and are open to all graduate students committed to the study of Southeast Asia. Field Research Grants can be awarded to graduate students in any field of study. Applications for FLAS, Center Fellowships, and Field Research Grants can be obtained directly from the center's office (or downloaded from the website) and must be submitted, along with all supporting materials, by the first week of February each year.

The center also nominates eligible incoming graduate students in its M.A. program for two university-wide competitions: Advanced Opportunity Fellowships (for minority students) and University Fellowships (for students with outstanding academic records). In addition to these opportunities, other fellowships and financial assistance are available outside the center.

For further information, incoming graduate students should write directly to the appropriate department and to the Office of Student Financial Aid. For additional information on the fellowships offered by the center, consult the center's website (<http://seassi.wisc.edu>).

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Contact the program for information on required assessments and examinations.

Language Requirements Contact the program for information on any language requirements.

REQUIRED COURSES

Graduate students will receive the M.A. by

- demonstrating a level of proficiency in a Southeast Asian language equivalent to having successfully completed four semesters of that language
- completing thirty credits of area-content coursework (<http://seasia.wisc.edu/home-page/for-students/courses>) (with six of these being graduate seminars)—fifteen in one field of concentration (that is in one department, in two or more related departments, or in an interdisciplinary field approved by the faculty advisor) and fifteen in one or more other fields
- perform satisfactorily in an oral examination focused on the candidate's knowledge of Southeast Asia as demonstrated by a research paper approved by the faculty advisor.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 9 credits of graduate coursework from other institutions.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

With program approval, student are allowed to count no more than 9 credits of coursework numbered 300 or above taken as a UW–Madison University Special student.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

n/a

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Demonstrate knowledge of one or more regions of Southeast Asia, focusing on a research question(s), problem or case study situated within a broader analytic framework and knowledge of the cultures, religions, history, anthropology, geography, economics, literature, and/or languages within scholarship on Southeast Asia.
2. Demonstrate proficiency in reading, speaking, and listening in one or more Southeast Asian languages, at least at the proficiency level of four semesters.
3. Analyze and synthesize information and ideas within the context of interdisciplinary Southeast Asian studies.
4. Understand, respond to, and construct arguments across disciplines relating to the study of Southeast Asia.

5. Apply their knowledge to solutions of intellectual as well as practical problems.

6. Recognize and apply principles of professional and ethical conduct.

7. Conduct academic research using an appropriate range of social scientific and/or humanistic sources, methodologies, and critical theories.

8. Communicate effectively in writing and orally.

PEOPLE

Faculty: Professors Bowie (Anthropology), Coxhead (Agricultural & Applied Economics), Gade (Nelson Institute for Environmental Studies), Gunther (Journalism & Mass Communications), Hansen (History), A. McCoy (History) (director), Olds (Geography), Sidel (Law), Zhou (Anthropology); Associate Professors Baird (Geography), Choy (Dance/Asian American Studies), Haberkorn (Asian Languages and Cultures), Ho (Curriculum and Instruction/Education), Kim (Anthropology), Nobles (Sociology); Adjunct Associate Professor Kozel (La Follette School of Public Affairs), Faculty Associates Barnard (Asian Languages & Cultures), Cullinane (History/Southeast Asian Studies), Harlacher (Human Ecology), Jung (Political Science), M. McCoy (Communication Arts/Southeast Asian Studies); Lecturers Dinh (Asian Languages & Cultures), Geran (International Studies), Hutami (Asian Languages and Cultures), Lee (Asian Languages & Cultures), Peyasantiwong (Asian Languages and Cultures), Zamar (Asian Languages & Cultures); Librarian Ashmun (Southeast Asia Collection, Memorial Library)

INTEGRATIVE BIOLOGY

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE PROFESSIONAL/CERTIFICATES

- Freshwater Marine Science, Doctoral Minor (p. 847)
- Freshwater Marine Science, M.S. (p. 847)
- Freshwater Marine Science, Ph.D. (p. 849)
- Zoology, Doctoral Minor (p. 852)
- Zoology, M.S. (p. 852)
- Zoology, Ph.D. (p. 856)

PEOPLE

FACULTY

Professors Hardin (chair, jdhardin@wisc.edu), Bement, Blair, Gammie, Halloran, Ives, Lee, Newmark, Porter, Ritters, Stanley, Stretton, Turner, and Vander Zanden

Associate Professors Amann, Damschen, Grinblat, and Orrock

Assistant Professors Dugan, Sharma, and Wolman

Adjunct Professor Peckarsky

AFFILIATED FACULTY

Professors Auger, Brunet, Currie, Engels, Fernandez, Goldberg, Gratton, Hawks, Karasov, Lindroth, Marler, Payseur, and Strier

Associate Professor Pool

FRESHWATER MARINE SCIENCE, DOCTORAL MINOR

REQUIREMENTS

REQUIREMENTS

Students working toward a Ph.D. degree with a major in another department may elect to minor in freshwater and marine sciences. A minor program of at least 12 credits, developed individually for each student, should strike a reasonable balance of physical and biological courses and include at least one semester of the limnology and marine sciences seminar. The proposed minor must be approved by the limnology and marine sciences graduate committee.

PEOPLE

FACULTY

Stanley (chair, ehstanley@wisc.edu) (Integrative Biology), Bahr (Geoscience), Block (Civil and Environmental Engineering), Cardiff (Geoscience), Desai (Atmospheric and Oceanic Sciences), Dugan (Integrative Biology), Ginder-Vogel (Civil and Environmental Engineering), Goldberg (Pathobiological Sciences), Graham (Botany), Hotchkiss (Botany), Hurley (Civil and Environmental Engineering), Krysan (Horticulture), Kucharik (Agronomy), Lee (Integrative Biology), Loheide (Civil and Environmental Engineering), McMahon (Civil and Environmental Engineering), Noguera (Civil and Environmental Engineering), Remucal (Civil and Environmental Engineering), Vander Zanden (Integrative Biology), Wright (Civil and Environmental Engineering), Wu (Civil and Environmental Engineering)

FRESHWATER MARINE SCIENCE, M.S.

The program offers curricula leading to the master of science and doctor of philosophy degrees or a doctoral minor in freshwater and marine sciences. Interdisciplinary in nature, each individualized program of study provides graduate training in aquatic sciences and integrates related sciences. Students enrolled in the program are advised by faculty in several departments in the College of Letters & Science, the College of Engineering, the College of Agricultural and Life Sciences, and the School of Veterinary Medicine.

UW–Madison is recognized worldwide as a leader in the field of limnology and aquatic ecology. The limnology and marine sciences program began in 1962 as the oceanography and limnology program. The program combines research and teaching from several fields and departments

to develop a greater understanding of aquatic systems—their origins, inhabitants, phenomena, and impact on human life.

This graduate program emphasizes limnological studies and is based on the premise that limnology and marine sciences are integrated fields requiring a broad base in the fundamental disciplines. Students may specialize in limnology or in marine sciences, or they may focus on processes common to both environments.

Facilities for freshwater and marine research and instruction in the biological, chemical, and physical areas of limnology and marine sciences are available at UW–Madison through the Center for Limnology, the Water Science & Engineering Laboratory, and the departments of faculty participating in the program. The Center for Limnology also maintains a year-round laboratory at Trout Lake. This facility is a well-equipped biological field station in the Northern Highlands lake district of Wisconsin. Several research vessels are available for research on the Great Lakes. Ships belonging to other institutions are used for oceanographic field research.

Study plans are individually tailored for each student by a guidance and evaluation committee composed of at least three faculty members including the major professor, another professor from the major field of interest, and a third from another discipline. At least two must be from the limnology and marine sciences faculty, one from the biological sciences, and one from the physical sciences. The committee guides the student in developing study plans, research, and career goals.

FACILITIES

Facilities and staff are available for advanced study in a wide variety of biological fields including aquatic and terrestrial ecology, conservation biology, cell/molecular/developmental and neurobiology, endocrinology, ethology, genetics, evolution and systematics, comparative physiology, and physiological ecology.

In addition to a broad range of well-equipped laboratories, research facilities include advanced microscopy facilities (<http://www.microscopy.wisc.edu>), limnological laboratories on campus (Lake Mendota) and in northern Wisconsin (Trout Lake), the University Arboretum, the Zoological Museum, and a Molecular Systematics Laboratory.

ADMISSIONS

ADMISSIONS

Applicants to the program typically have at least one year of college-level biology, chemistry, physics, and calculus. In addition, applicants should highlight their substantive experiences and career goals in freshwater and marine sciences. Prospective students make direct contact with potential faculty advisors. Admission depends upon finding a match between the skills and interests of the applicant and the needs of a suitable faculty mentor.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Various types of financial-assistance programs are available to qualified students in the form of research assistantships, teaching assistantships, fellowships, and special grants. Decisions regarding financial support are based on letters of recommendation, grades, Graduate Record Exam (GRE) scores, and, for research assistantships, the matching of interests or experience of the applicant to the research program. For research assistantships, the applicant's interests and experience must match the needs of the funding project. Students are encouraged to seek outside funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum 30 credits

Credit Requirement

Minimum 16 credits

Residence Credit Requirement

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall 3.00 GPA required.

Graduate GPA Requirement

Other Grade Requirements Students must earn a B or above in all courses counting toward degree requirements.

Assessments and Examinations A formal thesis is required.

Language Requirements No language requirements.

REQUIRED COURSES

The degree has a flexible curriculum. Students are required to develop a plan of courses with their advisor. Most students take ATM OCN/BOTANY/CIV ENGR/ENVIR ST/GEOSCI/ZOOLOGY 911 Limnology and Marine Science Seminar and ATM OCN/ENVIR ST/GEOSCI/ZOOLOGY 750 Problems in Oceanography.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students may be allowed to count credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

With program approval, 7 credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison University Special

With program approval, 15 credits taken as a UW–Madison Special Student are allowed toward minimum coursework requirements. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

ADVISOR / COMMITTEE

All incoming students are assigned an advisor. Students are expected to meet with their advisor on a regular basis.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Graduate students in the FMS Program are typically supported through research assistantships, teaching assistantships, fellowships, and special grants. Students are encouraged to seek outside funding and should talk with prospective faculty members regarding funding options.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Articulate, critique, or elaborate the theories, research methods, and approaches to inquiry or practice in the relevant area of freshwater and/or marine sciences.
2. Identify sources and assembles evidence pertaining to questions or challenges in the relevant research field(s).
3. Understand the historical or global context of freshwater and/or marine sciences.
4. Select and/or use appropriate methodologies and practices.
5. Evaluate or synthesize information pertaining to questions or challenges in the students' area of specialization within the freshwater and marine sciences.
6. Communicate clearly in ways appropriate to the field of study.
7. Recognize and applies principles of ethical conduct.

PEOPLE

FACULTY

Stanley (chair, ehstanley@wisc.edu) (Integrative Biology), Bahr (Geoscience), Block (Civil and Environmental Engineering), Cardiff (Geoscience), Desai (Atmospheric and Oceanic Sciences), Dugan (Integrative Biology), Ginder-Vogel (Civil and Environmental Engineering), Goldberg (Pathobiological Sciences), Graham (Botany), Hotchkiss (Botany), Hurley (Civil and Environmental Engineering), Krysan (Horticulture), Kucharik (Agronomy), Lee (Integrative Biology), Loheide (Civil and Environmental Engineering), McMahon (Civil and Environmental Engineering), Noguera (Civil and Environmental Engineering), Remucal (Civil and Environmental Engineering), Vander Zanden (Integrative Biology), Wright (Civil and Environmental Engineering), Wu (Civil and Environmental Engineering)

FRESHWATER MARINE SCIENCE, PH.D.

The program offers curricula leading to the master of science and doctor of philosophy degrees or a doctoral minor in freshwater and marine sciences. Interdisciplinary in nature, each individualized program of study provides graduate training in aquatic sciences and integrates related sciences. Students enrolled in the program are advised by faculty in several departments in the College of Letters & Science, the College of Engineering, the College of Agricultural and Life Sciences, and the School of Veterinary Medicine.

UW–Madison is recognized worldwide as a leader in the field of limnology and aquatic ecology. The limnology and marine sciences program began in 1962 as the oceanography and limnology program. The program combines research and teaching from several fields and departments to develop a greater understanding of aquatic systems—their origins, inhabitants, phenomena, and impact on human life.

This graduate program emphasizes limnological studies and is based on the premise that limnology and marine sciences are integrated fields

requiring a broad base in the fundamental disciplines. Students may specialize in limnology or in marine sciences, or they may focus on processes common to both environments.

Facilities for freshwater and marine research and instruction in the biological, chemical, and physical areas of limnology and marine sciences are available at UW–Madison through the Center for Limnology, the Water Science & Engineering Laboratory, and the departments of faculty participating in the program. The Center for Limnology also maintains a year-round laboratory at Trout Lake. This facility is a well-equipped biological field station in the Northern Highlands lake district of Wisconsin. Several research vessels are available for research on the Great Lakes. Ships belonging to other institutions are used for oceanographic field research.

Study plans are individually tailored for each student by a guidance and evaluation committee composed of at least three faculty members including the major professor, another professor from the major field of interest, and a third from another discipline. At least two must be from the limnology and marine sciences faculty, one from the biological sciences, and one from the physical sciences. The committee guides the student in developing study plans, research, and career goals.

All Ph.D. candidates are expected to obtain a broad background in aquatic sciences and depth in their research area. The background may include biology, chemistry, data science, geology, physics, or other related fields. The major, by nature of the program, includes advanced courses in several subdisciplines in freshwater and marine sciences. The minor may be used to obtain tools of research, focus in greater depth on a single discipline within freshwater and marine sciences, or open additional areas related to the field, such as the social sciences.

FACILITIES

Facilities and staff are available for advanced study in a wide variety of biological fields including aquatic and terrestrial ecology, conservation biology, cell/molecular/developmental and neurobiology, endocrinology, ethology, genetics, evolution and systematics, comparative physiology, and physiological ecology.

In addition to a broad range of well-equipped laboratories, research facilities include advanced microscopy facilities (<http://www.microscopy.wisc.edu>), limnological laboratories on campus (Lake Mendota) and in northern Wisconsin (Trout Lake), the University Arboretum, the Zoological Museum, and a Molecular Systematics Laboratory.

ADMISSIONS

ADMISSIONS

Applicants to the program typically have at least one year of college-level biology, chemistry, physics, and calculus. In addition, applicants should highlight their substantive experiences and career goals in freshwater and marine sciences. Prospective students make direct contact with potential faculty advisors. Admission depends upon finding a match between the skills and interests of the applicant and the needs of a suitable faculty mentor.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements

of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Various types of financial-assistance programs are available to qualified students in the form of research assistantships, teaching assistantships, fellowships, and special grants. Decisions regarding financial support are based on letters of recommendation, grades, Graduate Record Exam (GRE) scores, and, for research assistantships, the matching of interests or experience of the applicant to the research program. For research assistantships, the applicant's interests and experience must match the needs of the funding project. Students are encouraged to seek outside funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the

advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 51 credits

Minimum Residence Credit Requirement 32 credits

Minimum Graduate Coursework Requirement Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements Students must earn a B or above in all courses counting toward degree requirements.

Assessments and Examinations Doctoral students are required to take a comprehensive preliminary exam by the end of their fifth semester of study in the Ph.D. program. A final oral exam of the doctoral dissertation is required. Deposit of the doctoral dissertation in the Graduate School is required.

Language Requirements No language requirements.

Doctoral Minor/Breadth Requirements All doctoral students are required to complete a minor.

REQUIRED COURSES

The degree has a flexible curriculum. Students are required to develop a plan of courses with their advisor. Most students take ATM OCN/BOTANY/CIV ENGR/ENVR ST/GEOSCI/ZOOLOGY 911 Limnology and Marine Science Seminar and ATM OCN/ENVR ST/GEOSCI/ZOOLOGY 750 Problems in Oceanography.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students may be to count credits of graduate coursework from other institutions. Coursework

earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW-Madison Undergraduate

With program approval, 7 credits from a UW-Madison undergraduate degree are allowed to count toward the degree. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW-Madison University Special

With program approval, 15 credits taken as a UW-Madison Special Student are allowed toward minimum coursework requirements. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

PROBATION

A semester GPA below 3.000 will result in the student being placed on academic probation. If a semester GPA of 3.000 is not attained during the subsequent semester of enrollment the student may be dismissed from the program or allowed to continue for one additional semester based on advisor appeal to the Graduate School.

ADVISOR / COMMITTEE

All incoming students are assigned an advisor. Students are expected to meet with their advisor on a regular basis.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

OTHER

Graduate students in the FMS Program are typically supported through research assistantships, teaching assistantships, fellowships, and special grants. Students are encouraged to seek outside funding and should talk with prospective faculty members regarding funding options.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Articulate challenges, frontiers, and limits with respect to theory, knowledge or practice within relevant areas of freshwater and marine sciences.

2. Formulate ideas, concepts, designs, and/or techniques beyond the current boundaries of knowledge within the students' relevant research field(s).
3. Conduct research that makes a substantive contribution.
4. Demonstrate breadth within freshwater and marine sciences.
5. Communicate complex or ambiguous ideas in a clear and understandable manner.
6. Consider the implications of the discipline to broader societal concerns.
7. Foster ethical conduct and professional guidelines.

PEOPLE

FACULTY

Stanley (chair, ehstanley@wisc.edu) (Integrative Biology), Bahr (Geoscience), Block (Civil and Environmental Engineering), Cardiff (Geoscience), Desai (Atmospheric and Oceanic Sciences), Dugan (Integrative Biology), Ginder-Vogel (Civil and Environmental Engineering), Goldberg (Pathobiological Sciences), Graham (Botany), Hotchkiss (Botany), Hurley (Civil and Environmental Engineering), Krysan (Horticulture), Kucharik (Agronomy), Lee (Integrative Biology), Loheide (Civil and Environmental Engineering), McMahon (Civil and Environmental Engineering), Noguera (Civil and Environmental Engineering), Remucal (Civil and Environmental Engineering), Vander Zanden (Integrative Biology), Wright (Civil and Environmental Engineering), Wu (Civil and Environmental Engineering)

ZOOLOGY, DOCTORAL MINOR

REQUIREMENTS

Graduate students who wish to pursue an Option A external minor in zoology should consult a faculty member within the Department of Integrative Biology (their potential minor professor) or the chair of the zoology graduate committee. Courses are selected in conjunction with the chosen faculty member who serves as the minor advisor, and the student's departmental advisor. A student may earn a doctoral minor in zoology with 9 credits minimum in zoology (<http://guide.wisc.edu/courses/zoology>), including a seminar course, while in residence at UW–Madison. All 9 credits are either exclusively graduate-level zoology courses numbered 700 and above or courses numbered 300 and above and identified as designed for graduate work. Directed study courses do not count toward the minor.

PEOPLE

FACULTY

Professors Hardin (chair, jdhardin@wisc.edu), Bement, Blair, Gammie, Halloran, Ives, Lee, Newmark, Porter, Ritters, Stanley, Stretton, Turner, and Vander Zanden

Associate Professors Amann, Damschen, Grinblat, and Orrock

Assistant Professors Dugan, Sharma, and Wolman

Adjunct Professor Peckarsky

AFFILIATED FACULTY

Professors Auger, Brunet, Currie, Engels, Fernandez, Goldberg, Gratton, Hawks, Karasov, Lindroth, Marler, Payseur, and Strier

Associate Professor Pool

ZOOLOGY, M.S.

The zoology graduate program provides training in the following broad subject areas: cellular and molecular biology, developmental biology, neuroscience, physiology, ecology, evolution, and animal behavior. There is great flexibility in our graduate program to serve the diverse scholarly interests and cultures in the Department of Integrative Biology. Each student's course of study is tailored to his or her individual interests, career goals, and needs, and we admit students with diverse academic backgrounds. The path taken by a student results from a deliberative process that involves discussions between the student and the student's advisor and advisory committee.

The Department of Integrative Biology faculty strongly believes that graduate education should be distinguished from undergraduate education in recognition of individuality and emphasis on responsibility in graduate students. This philosophy requires flexibility and is not well served by the imposition of many formal requirements to be met by all students. Rather, more emphasis is placed on the role of advisory committees in devising programs of breadth and depth appropriate for individual students with due regard to areas outside of biology which are important for the student's effectiveness in their chosen field.

FACILITIES

Facilities and staff are available for advanced study in a wide variety of biological fields including aquatic and terrestrial ecology, conservation biology, cell/molecular/developmental and neurobiology, endocrinology, ethology, genetics, evolution and systematics, comparative physiology, and physiological ecology.

In addition to a broad range of well-equipped laboratories, research facilities include advanced microscopy facilities (<http://www.microscopy.wisc.edu>), limnological laboratories on campus (Lake Mendota) and in northern Wisconsin (Trout Lake), the University Arboretum, the Zoological Museum, and a Molecular Systematics Laboratory.

ADMISSIONS

Given the broad nature of the program, there are no strict prerequisites for admission. Interested applicants should identify and contact potential faculty advisors. Admission to the graduate program is contingent upon being accepted by an individual faculty advisor. Applicants should contact potential faculty advisors by email early in the application process to discuss mutual interests and to determine if the faculty member is actively recruiting graduate students. For a list of all faculty members and their research interests, please see People (<https://integrativebiology.wisc.edu/people>) on the department website.

In addition to the Graduate School application, all applicants must electronically submit GRE scores, at least three letters of recommendation, a personal statement including areas of research interest and the names of prospective faculty advisors, a CV/resume, and unofficial transcripts from all undergraduate and graduate schools attended (official transcripts will be requested upon admission to the program). For more specific instructions regarding application requirements, please see Prospective Students (<https://integrativebiology.wisc.edu/graduate-program/prospective-students>) on the department website. The annual admission application deadline is December 1. Most admission decisions will be made, and applicants will be notified, by March 15.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Financial support is available to qualified graduate students in the form of teaching and research **assistantships**, **fellowships**, and **traineeships**. In addition, graduate students are eligible for a number of **intradepartmental awards**.

Graduate students who have a teaching or research assistantship of at least a 33.3% appointment (approximately 13.3 hours per week) during the fall or spring semester are eligible to receive **remission of full tuition**. Fellowships or traineeships that are payrolled through the university and that carry stipends equivalent to at least a 33.3% research assistantship also qualify for remission of non-resident tuition. Tuition remission is conditionally awarded at the start of the semester based on the expectation that actual earnings during the semester will be at least 33.3% of the full-time rate. All students pay segregated fees. The only exception is that fellowships paid through the Graduate School have segregated fees waived in addition to tuition.

Assistantships and fellowships also provide **eligibility for an excellent health insurance program**, an extremely valuable benefit that provides single or family coverage that is more comprehensive than individuals can usually purchase on their own.

TEACHING ASSISTANTSHIPS

The most common source of support is a teaching assistantship. To receive a teaching assistantship, candidates for admission must meet the following requirements:

- evidence (usually from the undergraduate transcript) of an appropriate background in the relevant subject matter of the course(s) to which appointment is being considered;

- evidence (usually from letters of recommendation or verbal communication) of the candidate's potential as a teaching assistant;
- an undergraduate GPA of 3.000 or above (on a 4.000 scale); and
- for students whose native language is not English, evidence of competence in spoken English through the SPEAK test that is administered by the UW. International applicants should note that a TA appointment is not normally possible during the first year of graduate study.

Current students who apply for their first teaching assistantship are also subject to the above criteria, as well as their performance as a graduate student. Reappointment as a teaching assistant depends upon satisfactory progress as a graduate student, satisfactory performance as a teaching assistant, and completing the Equity/Diversity TA Training.

Teaching assistants may be eligible for University teaching awards (<https://grad.wisc.edu/taawards>), including the UW–Madison Early Excellence in Teaching Award, UW–Madison Exceptional Service Award, UW–Madison Innovation in Teaching Award, UW–Madison Capstone Ph.D. Teaching Award, and the College of Letters & Science Teaching Fellow.

RESEARCH ASSISTANTSHIPS

Research assistantships are made possible by grants awarded to individual professors for particular research programs. Recipients are selected by the individual professor concerned. Availability of research assistantships varies.

ADVANCED OPPORTUNITY FELLOWSHIPS

Advanced Opportunity Fellowships (AOF) are granted to the UW–Madison's Graduate School by the State of Wisconsin and are combined with other graduate education funds to support the recruitment and retention of highly qualified underrepresented students in UW–Madison graduate programs. Fellowships are competitive and merit based. AOF funding is intended to increase the racial and ethnic diversity of the graduate student population, as well as to support economically disadvantaged and first generation college students. AOF fellowships are paid through the Graduate School by the College of Letters & Science's Community of Graduate Research Scholars (<http://ls.wisc.edu/current-students/graduate-students/cgrs>) (C-GRS) program.

EXTERNAL FELLOWSHIPS

Fellowships from professional societies and outside agencies provide another important source of aid for which students may apply either before or after commencing graduate work at UW. If necessary, external fellowships can often be supplemented with university funds up to prevailing university fellowship rates.

All qualified students who are US citizens, nationals or permanent resident aliens of the US are urged to apply to the National Science Foundation for the pre-doctoral fellowship competition. Students apply directly to NSF; the closing date is usually in early November. Please check the NSF website (<http://www.nsf.gov>) for the application instructions and deadline.

INTRADPARTMENTAL AWARDS

For more information on intradepartmental awards, please see the latest descriptions at this link (<https://integrativebiology.wisc.edu/graduate-program/current-students>).

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements An average record of B or better in all work taken as a graduate student is required by the Department of Integrative Biology (grades of P and S are for this purpose considered to be satisfactory at the B level; grades of Incomplete are considered for this purpose to be unsatisfactory if they are not removed during the following semester of residence).

Assessments and Examinations In the second semester of the first year, students must complete the Certification of Candidate for a Master's Degree.

Typically the defense of the master's degree occurs no later than the end of the student's sixth semester. A master's degree warrant must be requested from the department prior to the defense.

Language Requirements To be determined by the advisory committee.

REQUIRED COURSES

In addition to completing a research project, M.S. students must take courses and seminars to fulfill required research credits. Specific Zoology courses (<http://guide.wisc.edu/courses/zoology>) are approved by the student's advisor or advisory committee and depend on the student's research area, interests, and goals. In keeping with the diverse areas of research and training for students in Zoology, students may additionally take any courses outside of Zoology that have been identified as graduate-level to meet this requirement.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://integrativebiology.wisc.edu/wp-content/uploads/sites/214/2018/02/Zoology-Graduate-Program-Handbook.pdf>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With committee approval, students are allowed to count no more than 14 credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements. Typically committees will choose to cap coursework from another institution at a lower level than 14 credits, but this is a committee decision to be made on a case-by-case basis.

UW-Madison Undergraduate

With committee approval, students are allowed up to 7 credits numbered 300 or above from their UW-Madison

undergraduate career to fulfill graduate requirements. Typically committees will choose to cap coursework allowed from undergraduate careers at a lower level than the 7 allowed, but this is a committee decision to be made on a case-by-case basis.

UW–Madison University Special

With committee approval, students are allowed to count no more than 15 credits of coursework numbered 300 or above taken as a UW–Madison Special student. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements. Typically committee members will choose to cap the number of coursework taken as a University Special student at a lower level, but this is a committee decision to be made on a case-by-case basis.

by teaching assistantships, research assistantships, and/or fellowships.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Master fundamental skills in at least one of the broad subject areas represented in the Department of Integrative Biology.
2. Demonstrate understanding of major current and past theories, research findings, and methodologies and techniques in their area of concentration.
3. Develop critical thinking skills. Retrieve and examine scientific literature, evaluate evidence for and against hypotheses, identify knowledge gaps, strengths and weaknesses in existing literature, synthesize knowledge, and develop conclusions.
4. Complete an original research project in one of the broad subject areas represented in the Department of Integrative Biology.
5. Retrieve, evaluate, and interpret professional scientific literature and use this information to select and/or use the most appropriate methods for their own research project.
6. Conduct research, analyze, and interpret resulting data. Prepare a thesis or research report describing their research project.
7. Effectively communicate in writing and orally.
8. Write a clear and concise research report.
9. Present research articulately and informatively. Have opportunities to engage in public outreach and education.
10. Understanding of professional and ethical responsibility.
11. Trained to use scientific rigor when designing experiments, collecting and analyzing data, interpreting and reporting results.
12. Trained in the ethics of publishing.
13. Know and adhere to laws, regulations, needed permits and licenses, occupational health and safety standards.
14. Provided with diverse training that will prepare them for a range of flexible and sustainable careers (e.g., academia, industry, government, science policy and administration, science commerce, science writing, law, and science education and outreach at all levels).
15. Develop broadly applicable skills in critical thinking and problem solving.
16. Have opportunities for teamwork, communication skills, and collaborations.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor and a committee. To ensure that students are making satisfactory progress toward a degree, every student is required to meet with the advisor and committee annually to review progress. If a progress report has not been filed by April 1, a hold will be placed on student course registration.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

It is expected that a master's student will complete the thesis or research report by the end of the third academic year. If this is not accomplished by the end of the summer following the third academic year, the major professor must present a written statement to the Director of Graduate Studies that explains why the master's degree has not been completed and describes plans that the student and the student's advisory committee have agreed upon to ensure completion, including specific expectations, dates for completion, and consequences should expectations not be met. Continuation in the program beyond four years will be at the discretion of the mentor and advisory committee. Five years is the outside limit by which a student must complete the master's degree.

It is up to the student's committee to determine whether or not a student who has been absent for five or more consecutive years will lose the credits earned before the absence; that coursework may not count toward Graduate School credit requirements.

OTHER

There is great flexibility in our graduate program to serve the diverse scholarly interests and cultures in the Department of Integrative Biology. The path taken by a student results from a deliberative process that involves discussions between the student and the student's advisor and advisory committee. The department's policy is to only accept students that can be financially supported

PEOPLE

FACULTY

Professors Hardin (chair, jddhardin@wisc.edu), Bement, Blair, Gammie, Halloran, Ives, Lee, Newmark, Porter, Ritters, Stanley, Stretton, Turner, and Vander Zanden

Associate Professors Amann, Damschen, Grinblat, and Orrock

Assistant Professors Dugan, Sharma, and Wolman

Adjunct Professor Peckarsky

AFFILIATED FACULTY

Professors Auger, Brunet, Currie, Engels, Fernandez, Goldberg, Gratton, Hawks, Karasov, Lindroth, Marler, Payseur, and Strier

Associate Professor Pool

ZOOLOGY, PH.D.

The zoology graduate program provides training in the following broad subject areas: cellular and molecular biology, developmental biology, neuroscience, physiology, ecology, evolution, and animal behavior. There is great flexibility in our graduate program to serve the diverse scholarly interests and cultures in the Department of Integrative Biology. Each student's course of study is tailored to his or her individual interests, career goals, and needs, and we admit students with diverse academic backgrounds. The path taken by a student results from a deliberative process that involves discussions between the student and the student's advisor and advisory committee.

The Department of Integrative Biology faculty strongly believes that graduate education should be distinguished from undergraduate education in recognition of individuality and emphasis on responsibility in graduate students. This philosophy requires flexibility and is not well served by the imposition of many formal requirements to be met by all students. Rather, more emphasis is placed on the role of advisory committees in devising programs of breadth and depth appropriate for individual students with due regard to areas outside of biology which are important for the student's effectiveness in their chosen field.

JOINT DEGREE

Doctoral students may elect a joint degree (two programs) which combines zoology with another biological program. The requirements for such candidates will be determined by the certification committee (which includes members of both programs) in accordance with regulations established by the Graduate School.

FACILITIES

Facilities and staff are available for advanced study in a wide variety of biological fields including aquatic and terrestrial ecology, conservation biology, cell/molecular/developmental and neurobiology, endocrinology, ethology, genetics, evolution and systematics, comparative physiology, and physiological ecology.

In addition to a broad range of well-equipped laboratories, research facilities include advanced microscopy facilities (<http://www.microscopy.wisc.edu>), limnological laboratories on campus

(Lake Mendota) and in northern Wisconsin (Trout Lake), the University Arboretum, the Zoological Museum, and a Molecular Systematics Laboratory.

ADMISSIONS

Given the broad nature of the program, there are no strict prerequisites for admission. Interested applicants should identify and contact potential faculty advisors. Admission to the graduate program is contingent upon being accepted by an individual faculty advisor. Applicants should contact potential faculty advisors by email early in the application process to discuss mutual interests and to determine if the faculty member is actively recruiting graduate students. For a list of all faculty members and their research interests, please see People (<https://integrativebiology.wisc.edu/people>) on the department website.

In addition to the Graduate School application, all applicants must electronically submit GRE scores, at least three letters of recommendation, a personal statement including areas of research interest and the names of prospective faculty advisors, a CV/resume, and unofficial transcripts from all undergraduate and graduate schools attended (official transcripts will be requested upon admission to the program). For more specific instructions regarding application requirements, please see Prospective Students (<https://integrativebiology.wisc.edu/graduate-program/prospective-students>) on the department website. The annual admission application deadline is December 1. Most admission decisions will be made, and applicants will be notified, by March 15.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Financial support is available to qualified graduate students in the form of teaching and research **assistantships**, **fellowships**, and **traineeships**. In addition, graduate students are eligible for a number of **intradepartmental awards**.

Graduate students who have a teaching or research assistantship of at least a 33.3% appointment (approximately 13.3 hours per week) during the fall or spring semester are eligible to receive **remission of full tuition**. Fellowships or traineeships that are payrolled through the university and that carry stipends equivalent to at least a 33.3% research assistantship also qualify for remission of non-resident tuition. Tuition remission is conditionally awarded at the start of the semester based on the expectation that actual earnings during the semester will be at

least 33.3% of the full-time rate. All students pay segregated fees. The only exception is that fellowships paid through the Graduate School have segregated fees waived in addition to tuition.

Assistantships and fellowships also provide **eligibility for an excellent health insurance program**, an extremely valuable benefit that provides single or family coverage that is more comprehensive than individuals can usually purchase on their own.

TEACHING ASSISTANTSHIPS

The most common source of support is a teaching assistantship. To receive a teaching assistantship, candidates for admission must meet the following requirements:

- evidence (usually from the undergraduate transcript) of an appropriate background in the relevant subject matter of the course(s) to which appointment is being considered;
- evidence (usually from letters of recommendation or verbal communication) of the candidate's potential as a teaching assistant;
- an undergraduate GPA of 3.000 or above (on a 4.000 scale); and
- for students whose native language is not English, evidence of competence in spoken English through the SPEAK test that is administered by the UW. International applicants should note that a TA appointment is not normally possible during the first year of graduate study.

Current students who apply for their first teaching assistantship are also subject to the above criteria, as well as their performance as a graduate student. Reappointment as a teaching assistant depends upon satisfactory progress as a graduate student, satisfactory performance as a teaching assistant, and completing the Equity/Diversity TA Training.

Teaching assistants may be eligible for University teaching awards (<https://grad.wisc.edu/taawards>), including the UW–Madison Early Excellence in Teaching Award, UW–Madison Exceptional Service Award, UW–Madison Innovation in Teaching Award, UW–Madison Capstone Ph.D. Teaching Award, and the College of Letters & Science Teaching Fellow.

RESEARCH ASSISTANTSHIPS

Research assistantships are made possible by grants awarded to individual professors for particular research programs. Recipients are selected by the individual professor concerned. Availability of research assistantships varies.

ADVANCED OPPORTUNITY FELLOWSHIPS

Advanced Opportunity Fellowships (AOF) are granted to the UW–Madison's Graduate School by the State of Wisconsin and are combined with other graduate education funds to support the recruitment and retention of highly qualified underrepresented students in UW–Madison graduate programs. Fellowships are competitive and merit based. AOF funding is intended to increase the racial and ethnic diversity of the graduate student population, as well as to support economically disadvantaged and first generation college students. AOF fellowships are paid through the Graduate School by the College of Letters & Science's Community of Graduate Research Scholars (<http://ls.wisc.edu/current-students/graduate-students/cgrs>) (C-GRS) program.

EXTERNAL FELLOWSHIPS

Fellowships from professional societies and outside agencies provide another important source of aid for which students may apply either before or after commencing graduate work at UW. If necessary, external

fellowships can often be supplemented with university funds up to prevailing university fellowship rates.

All qualified students who are US citizens, nationals or permanent resident aliens of the US are urged to apply to the National Science Foundation for the pre-doctoral fellowship competition. Students apply directly to NSF; the closing date is usually in early November. Please check the NSF website (<http://www.nsf.gov>) for the application instructions and deadline.

INTRADPARTMENTAL AWARDS

For more information on intradepartmental awards, please see the latest descriptions at this link (<https://integrativebiology.wisc.edu/graduate-program/current-students>).

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum 51 credits
Credit
Requirement

Minimum 32 credits
Residence
Credit
Requirement

Minimum Graduate Coursework Requirement	Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle).
Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	An average record of B or better in all work taken as a graduate student is required by the Department of Integrative Biology (grades of P and S are for this purpose considered to be satisfactory at the B level; grades of Incomplete are considered for this purpose to be unsatisfactory if they are not removed during the following semester of residence).
Assessments and Examinations	<p>In the second semester of the first year, students must complete the Certification of Candidate for a Ph.D. Degree.</p> <p>By the end of the fourth semester, students must complete the qualifying examination and return the signed qualifying examination form to the department.</p> <p>The preliminary examination (defense of research project) should be completed and the prelim warrant submitted by the end of the sixth semester. Note that in addition to passing the prelim exam, students must have completed 32 credits, clear all Incomplete or Progress grades in nonresearch courses, complete all minor requirements and earn at least a cumulative 3.000 GPA in order to be granted dissertator status. The preliminary defense warrant must be requested from the department.</p> <p>Defense of the Ph.D. usually occurs after the tenth semester. A final defense warrant must be requested from the department.</p>
Language Requirements	To be determined by the advisory committee.
Doctoral Minor/Breadth Requirements	All doctoral students are required to complete a minor.

REQUIRED COURSES

Ph.D. students must take courses and seminars to fulfill required research credits. Specific Zoology courses (<http://guide.wisc.edu/courses/zoology>) are approved by the student's advisor or advisory committee and depend on the student's research area, interests, and goals. In keeping with the diverse areas of research and training for students in Zoology, students may additionally take any courses outside of Zoology that have been identified as graduate-level to meet this requirement.

All students are required to serve as a teaching assistant for a minimum of one semester. All students must hold a departmental seminar in which they present their graduate research.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://integrativebiology.wisc.edu/wp-content/uploads/sites/214/2018/02/Zoology-Graduate-Program-Handbook.pdf>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With committee approval, students are allowed to count no more than 19 credits of graduate coursework from other institutions. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements. Typically committees will choose to cap coursework from another institution at a lower level than 19 credits, but this is a committee decision to be made on a case-by-case basis.

UW–Madison Undergraduate

With committee approval, students are allowed up to 7 credits numbered 300 or above from their UW–Madison undergraduate career to fulfill graduate requirements. Typically committees will choose to cap coursework allowed from undergraduate careers at a lower level than the 7 allowed, but this is a committee decision to be made on a case-by-case basis.

UW–Madison University Special

With committee approval, students are allowed to count no more than 15 credits of coursework numbered 300 or above taken as a UW–Madison Special student. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements. Typically committee members will choose to cap the number of coursework taken as a University Special student at a lower level, but this is a committee decision to be made on a case-by-case basis.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor and a committee. To ensure that students are making satisfactory progress toward a degree, every student is required to meet with the advisor and committee annually to review progress. If a progress

report has not been filed by April 1, a hold will be placed on student course registration.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

It is expected that a Ph.D. student will defend the dissertation by the end of the fifth academic year. If this is not accomplished by the end of the summer following the sixth academic year, the student's mentor must present a written statement to the Director of Graduate Studies that explains why the Ph.D. has not been completed and describes plans that the student and the student's advisory committee have agreed upon to ensure completion, including specific expectations, dates for completion, and consequences should expectations not be met. Continuation in the program beyond eight years will be at the discretion of the mentor and advisory committee. Ten years is the outside limit by which a student must complete the Ph.D. degree.

It is up to the student's committee to determine whether or not a student who has been absent for five or more consecutive years will lose the credit earned before the absence; that coursework may not count toward Graduate School credit requirements.

OTHER

There is great flexibility in our graduate program to serve the diverse scholarly interests and cultures in the Department of Integrative Biology. The path taken by a student results from a deliberative process that involves discussions between the student and the student's advisor and advisory committee. The department's policy is to only accept students that can be financially supported by teaching assistantships, research assistantships, and/or fellowships.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Demonstrate academic mastery in at least one of the broad subject areas represented in the Department of Integrative Biology.
2. Demonstrate a broad understanding of major current and past theories, research findings, and methodologies and techniques in their area of concentration both orally and in writing.
3. Develop critical thinking skills. They will retrieve and examine scientific literature, evaluate evidence for and against hypotheses, identify knowledge gaps, strengths and weaknesses in existing literature, synthesize knowledge, and develop conclusions.
4. Develop and complete original research that advances a specific field of study within one of the broad subject areas represented in the Department of Integrative Biology.

5. Retrieve, evaluate, and interpret professional scientific literature and use this information to develop theoretical frameworks, testable hypotheses, and predictions for their own research projects.
6. Design realistic and feasible research projects and prepare necessary protocols.
7. Conduct independent research and analyze and interpret resulting data.
8. Prepare and submit manuscripts resulting from their independent research for publication in professional, peer-reviewed journals.
9. Effectively communicate to diverse audiences in writing, through oral presentations, and discussions.
10. Write clear and concise research articles for publication in professional, peer-reviewed journals.
11. Present at scientific conferences and/or in formal and informal seminars.
12. Learn methods of communication needed to interact with professional colleagues and to request grant support.
13. Present research articulately and informatively to diverse audiences.
14. Give and receive feedback orally and in writing.
15. Have with opportunities to engage in public outreach and education.
16. Effectively teach topics or research methods in cellular and molecular biology; developmental biology; neuroscience; physiology; ecology; evolution; or animal behavior.
17. Receive training and serve as teaching assistants for at least one semester.
18. Have with opportunities to mentor others in a laboratory or research setting.
19. Have an understanding of professional and ethical responsibility.
20. Trained to use scientific rigor when designing experiments, collecting and analyzing data, interpreting and reporting results.
21. Trained in the ethics of publishing.
22. Know and adhere to laws, regulations, needed permits and licenses, occupational health and safety standards.
23. Provided with diverse training that will prepare them for a range of flexible and sustainable careers (e.g., academia, industry, government, science policy and administration, science commerce, science writing, law, and science education and outreach at all levels).
24. Develop broadly applicable skills in critical thinking and problem solving.
25. Have opportunities to develop skills in leadership, project management, teamwork, and communication and to develop collaborations with nonacademic partners.

PEOPLE

FACULTY

Professors Hardin (chair, jddhardin@wisc.edu), Bement, Blair, Gammie, Halloran, Ives, Lee, Newmark, Porter, Ritters, Stanley, Stretton, Turner, and Vander Zanden

Associate Professors Amann, Damschen, Grinblat, and Orrock

Assistant Professors Dugan, Sharma, and Wolman

Adjunct Professor Peckarsky

AFFILIATED FACULTY

Professors Auger, Brunet, Currie, Engels, Fernandez, Goldberg, Gratton, Hawks, Karasov, Lindroth, Marler, Payseur, and Strier

Associate Professor Pool

JOURNALISM AND MASS COMMUNICATION

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Journalism and Mass Communication, M.A. (p. 860)
- Mass Communications, Doctoral Minor (p. 864)
- Mass Communications, Ph.D. (p. 865)

PEOPLE

Faculty: Professors Downey, Friedland, Kim, McLeod, Robinson, Rojas, D. Shah, H. Shah; Associate Professors Riddle, Wagner, Wells; Assistant Professors Cascio, Culver, Graves, McGarr, Palmer; Faculty Associates Forster, Hastings, Pierce, Schwoch

JOURNALISM AND MASS COMMUNICATION, M.A.

Three available tracks¹:

1. Professional-track master's focused on specialized training in multimedia skills that lead to careers in mass media industries.
2. Thesis-track master's focused on developing skills in mass communication research and typically leading to enrollment in a doctoral program.
3. Non-thesis master's for students interested in basic concepts and theories in journalism and mass communication studies but not in advanced doctoral-level training.

Graduate programs in journalism and mass communication are designed for advanced academic preparation in the various fields of mass communication and journalism, and for training in research and teaching. The School of Journalism and Mass Communication offers three options

for the master of arts: professional-track M.A. (30 credits in multi-media communication and topic specialization); thesis-track M.A. (30 credits in theory and methods plus thesis); and non-thesis M.A. (30 credits with tight focus on journalism and mass communication concepts).

The school is a recognized leader in teaching and research in a variety of topics including the process and effects of mass communication; communication campaigns; community and social movements; consumer and popular culture; health and science communication; history of mass communication; international communication; media accountability and criticism; media law and policy; new media technology; political communication and public opinion; and race, gender and mass communication. Graduate work prepares students to use and contribute to the research and scholarship in these and many other areas. Identifying important questions, gathering evidence, and understanding standards of inference are dominant features of all graduate degree programs.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

FACILITIES

The Center for Journalism Ethics (<https://ethics.journalism.wisc.edu>) advances the ethical standards and practices of democratic journalism through discussion, research, teaching, professional outreach, and newsroom partnerships. Students, faculty, leading journalists and members of the public participate in conferences, workshops, and publications. The center tracks and analyzes ethical issues for all media platforms on its website. The center contributes to the teaching of ethics in the school's curriculum. Students have the opportunity to write for the center's website, cover conferences, and contribute to research.

The Mass Communication Research Center is an interdisciplinary research facility that conducts research into all phases of communication and provides a common meeting ground for scholars with an interest in communication behavior. It also provides an opportunity for graduate students to participate in research programs and to initiate and conduct their own thesis projects.

The Center for Communication and Democracy is a research and action project at UW–Madison. The goals of the center are to study how citizens can use new communications technologies to advance democratic discussion and civic participation; to explore the relationships between geographic communities and the emerging world of cyberspace; to explore the structural relations among communications and information markets, the civic sector, and government to find relationships necessary to build and sustain a public sphere in communication that is not dominated by the market, while sustaining economic growth and technological innovation; and to ask what government policies are most appropriate for combining the vibrancy of the market with the common needs of citizens in the sphere of communication.

The Mass Communication History Center, a part of the Wisconsin Historical Society, provides scholars access to private collections, papers, and various types of unpublished materials relating to the growth of mass communication in the United States and other parts of the world. The Wisconsin Historical Society also has a large collection of bound and microfilm files of American and foreign newspapers.

The Physiology and Communication Effects Research Group conducts research examining the physiological correlates of political and social attitudes, media effects and integrates theory and evidence from the sociological environment, political groups and institutions, psychology and physiology. The group is interested in when people think, reason, feel, and behave in ways “against type.” Visit the PACE lab website. (<https://uwpacelab.wordpress.com>)

ADMISSIONS

To apply for the master's, students must have a four-year bachelor's degree, an undergraduate GPA of 3.0 (on a 4.0 scale), and completed Graduate Record Exam (GRE). Three letters of recommendation are required of all applicants. GRE scores (verbal, quantitative, and analytical writing tests) are required for U.S. students and international students. International students are also required to take the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS) exam. Test scores must be furnished to the school before the application is considered complete.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Graduate students are eligible for a range of financial support, including teaching assistantships, project assistantships, research assistantships and dissertator scholarships. All applicants (both domestic and international) who are admitted for graduate studies are automatically considered for support. No separate application is required. However, because resources are limited and the number of qualified applicants exceeds the amount of available funds, only a subset of admitted students is guaranteed financial support.

The most common form of financial support for graduate students is teaching assistantships, which are allocated on a long-term guaranteed basis or a short-term yearly basis with no presumption of support the following academic year. Professional M.A. students are considered for scholarships that cover the costs of tuition and most fees. For more information, visit our website (<https://journalism.wisc.edu/graduate/financial-aid>).

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement	30 credits
Minimum Residence Credit Requirement	16 credits
Minimum Graduate Coursework Requirement	Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (https://registrar.wisc.edu/course-guide/).
Overall Graduate GPA Requirement	3.25 GPA required.
Other Grade Requirements	Students must earn a B or above in all core curriculum coursework.
Assessments and Examinations	M.A. thesis track requires a formal thesis and defense; the Professional M.A. track requires a portfolio presentation.

Language Requirements No language requirements.

REQUIRED COURSES

The program must include:

- Two 800- or 900-level courses (minimum) in Journalism and Mass Communication (<http://guide.wisc.edu/courses/journ>)
- Twelve graduate credits (minimum) in Journalism and Mass Communication (<http://guide.wisc.edu/courses/journ>)
- Six graduate credits (minimum) outside of Journalism and Mass Communication (<http://guide.wisc.edu/courses/journ>)

Courses are selected with consideration of the student's specialty in consultation with their advisor.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://journalism.wisc.edu/wp-content/blogs.dir/41/files/2017/11/MA-Handbook-11.21.17.pdf>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

With program approval, up to 7 credits numbered 300 or 400 and advanced courses at the 500 and 600 level that assess graduate students separately from undergraduate students from a UW–Madison undergraduate degree are allowed to count toward the degree.

Courses that qualify toward "Prior Coursework - UW–Madison Undergraduate" policy

Code	Title	Credits
JOURN 335	Principles and Practices of Reporting	4
JOURN 345	Principles and Practice of Strategic Communication	4
JOURN 401	In-Depth Reporting	4
JOURN 404	Interpretation of Contemporary Affairs	4
JOURN 405	Creative Nonfiction	4
JOURN 411	Multimedia Design	4

JOURN 417	Magazine Publishing	4
JOURN 420	Investigative Reporting	4
JOURN 425	Video Journalism	4
JOURN 426	Community-Based Reporting	4
JOURN 445	Creative Campaign Messages	4
JOURN 447	Strategic Media Planning	4
JOURN 449	Account Planning and Strategy	4
JOURN 453	Strategic Media Relations	4
JOURN 463	Digital Media Strategies	4
JOURN 464	Public Relations Strategies	4
JOURN 470	Strategic Communication Campaigns Capstone	4
JOURN 475	Special Topics in Advanced Concepts and Skills	1-4
JOURN/ HISTORY 560	History of Mass Communication	4
JOURN 561	Mass Communication and Society	4
JOURN 563	Law of Mass Communication	4
JOURN 564	Media and the Consumer	4
JOURN 565	Effects of Mass Communication	4
JOURN 566	Communication and Public Opinion	4
JOURN 601	Colloquium in Professional Communication Careers	1
JOURN/COM ARTS/ HDFS 616	Mass Media and Youth	3
JOURN/COM ARTS/ LSC 617	Health Communication in the Information Age	3
JOURN 618	Mass Communication and Political Behavior	4
JOURN 620	International Communication	4
JOURN 621	Mass Communication in Developing Nations	4
JOURN/ART HIST/ HISTORY/L I S 650	History of Books and Print Culture in Europe and North America	3
JOURN 658	Communication Research Methods	4
JOURN/ ASIAN AM 662	Mass Media and Minorities	4
JOURN 664	Social Networks in Communication	3
JOURN 669	Literary Aspects of Journalism	3
JOURN 670	Community Service Learning: Technology for Social Change	3
JOURN 675	Topics in Government and Mass Media	3
JOURN 676	Special Topics in Mass Communication	1-4
JOURN/L I S 677	Concepts and Tools for Data Analysis and Visualization	3
JOURN 678	Legal & Ethical Dimensions of Emerging Media	3
JOURN 699	Directed Study	1-6

Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison University Special

With program approval, students are allowed to count up to 15 credits of coursework taken as a UW–Madison Special student. This includes courses numbered 300 or 400 and advanced courses at the 500 and 600 level which are identified with the Graduate Level Coursework attribute in the University's Course Guide (<http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle>).

Courses that qualify toward "Prior Coursework - UW–Madison Special Student" policy

Code	Title	Credits
JOURN 335	Principles and Practices of Reporting	4
JOURN 345	Principles and Practice of Strategic Communication	4
JOURN 401	In-Depth Reporting	4
JOURN 404	Interpretation of Contemporary Affairs	4
JOURN 405	Creative Nonfiction	4
JOURN 411	Multimedia Design	4
JOURN 417	Magazine Publishing	4
JOURN 420	Investigative Reporting	4
JOURN 425	Video Journalism	4
JOURN 426	Community-Based Reporting	4
JOURN 445	Creative Campaign Messages	4
JOURN 447	Strategic Media Planning	4
JOURN 449	Account Planning and Strategy	4
JOURN 453	Strategic Media Relations	4
JOURN 463	Digital Media Strategies	4
JOURN 464	Public Relations Strategies	4
JOURN 470	Strategic Communication Campaigns Capstone	4
JOURN 475	Special Topics in Advanced Concepts and Skills	1-4
JOURN/ HISTORY 560	History of Mass Communication	4
JOURN 561	Mass Communication and Society	4
JOURN 563	Law of Mass Communication	4
JOURN 564	Media and the Consumer	4
JOURN 565	Effects of Mass Communication	4
JOURN 566	Communication and Public Opinion	4
JOURN 601	Colloquium in Professional Communication Careers	1
JOURN/COM ARTS/ HDFS 616	Mass Media and Youth	3
JOURN/COM ARTS/ LSC 617	Health Communication in the Information Age	3
JOURN 618	Mass Communication and Political Behavior	4
JOURN 620	International Communication	4
JOURN 621	Mass Communication in Developing Nations	4
JOURN/ART HIST/ HISTORY/L I S 650	History of Books and Print Culture in Europe and North America	3
JOURN 658	Communication Research Methods	4

JOURN/ ASIAN AM 662	Mass Media and Minorities	4
JOURN 664	Social Networks in Communication	3
JOURN 669	Literary Aspects of Journalism	3
JOURN 670	Community Service Learning: Technology for Social Change	3
JOURN 675	Topics in Government and Mass Media	3
JOURN 676	Special Topics in Mass Communication	1-4
JOURN/L I S 677	Concepts and Tools for Data Analysis and Visualization	3
JOURN 678	Legal & Ethical Dimensions of Emerging Media	3
JOURN 699	Directed Study	1-6

Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

ADVISOR / COMMITTEE

M.A. thesis track students are required to have a thesis committee of three faculty members.

M.A. professional track students are required to have one faculty advisor.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

M.A. Students are eligible to receive scholarships and graduate assistantships and will be considered for financial assistance as part of the admission process.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PROGRAM RESOURCES

Research M.A.

We offer two research colloquia (JOURN/LSC 901 and LSC 700) during the academic year where faculty share their research findings and methods and engage students in lively conversations about how to conduct research. We offer a teaching colloquium (JOURN 902) that explores pedagogical principles and applications that prepares students for teaching careers. Teaching assistantships provide hands-on training.

Within our research groups and centers, graduate students work side by side with faculty and with each other, allowing the senior students to mentor younger students and for faculty to mentor students who are not their advisees. Our graduate students organize and host an annual day-long conference where they present their research in a series of panels, and they present their research at conferences around the world.

We offer a series of professional development workshops for graduate students with faculty and alumni panelists. The topics include: navigating the academic job market, exploring the non-academic job market, turning a paper into a presentation and how to find funding for research.

Professional M.A.

Professional M.A. students attend quarterly meetings with industry professionals to learn about a variety of jobs and build their networks. Required internships allow students to gain real-world experience while in the program and to build their portfolio. Students work with the career advisor and attend the employer presentations and mock interview sessions. Students attend at least one professional conference during their time in the program.

LEARNING OUTCOMES

1. Attain mastery in an area of the mass communication field. This encompasses an ability to articulate, critique, or elaborate theories, research methods, and approaches to inquiry in the chosen field of study. (Research)
2. Identify sources and assemble evidence pertaining to questions or challenges in the field of communication. (Research)
3. Demonstrate understanding of the primary field of study in a historical, social, psychological, cultural or global context. (Research)
4. Select and/or utilize the most appropriate methodologies and practices. (Research)
5. Evaluate or synthesize information pertaining to questions or challenges in the field of communication. (Research)
6. Develop professional communication skills related to gathering, assessing, compiling and disseminating information, by selecting and/

or utilizing the most appropriate methodologies and practices and the evaluation and synthesis of information. (Professional)

7. Demonstrate understanding of the journalism field of study. (Professional)
8. Select and/or utilize the most appropriate professional journalistic practices. (Professional)
9. Evaluate or synthesize information pertaining to questions or challenges in their field of journalistic specialization. (Professional)
10. Attain mastery in an area of the mass communication field. This encompasses an ability to articulate, critique, or elaborate theories and approaches to inquiry in the chosen field of study. (Non-Thesis)
11. Develop in-depth and specialized expertise in a topic of interest. In doing so students will be able to identify sources of information and assemble evidence pertaining to questions in that area. (Non-Thesis)
12. Demonstrate understanding of the primary field of study. (Non-Thesis)
13. Select and/or utilize the most appropriate professional practices. (Non-Thesis)
14. Evaluate or synthesize information pertaining to questions or challenges in their field of specialization. (Non-Thesis)
15. Communicate clearly in ways appropriate to the field of study. (Research)
16. Communicate clearly in ways appropriate to journalism practice. (Professional)
17. Communicate clearly in ways appropriate to the field of study. (Non-Thesis)

PEOPLE

Faculty: Professors Downey, Friedland, Kim, McLeod, Robinson, Rojas, D. Shah, H. Shah; Associate Professors Riddle, Wagner, Wells; Assistant Professors Cascio, Culver, Graves, McGarr, Palmer; Faculty Associates Forster, Hastings, Pierce, Schwoch

MASS COMMUNICATIONS, DOCTORAL MINOR

A candidate for a doctoral degree in another area may earn a doctoral minor in Mass Communications by taking a minimum of 10 credits in the School of Journalism and Mass Communication. Typically, the student will write a dissertation combining research in the major and minor fields. This minor is open to any doctoral students who seek to complement their main area of research with a thorough understanding of communication dynamics and how these dynamics affect society.

ADMISSIONS

Contact Lisa Aarli, graduate advisor, aarli@wisc.edu.

REQUIREMENTS

A minor in mass communications consists of at least 10 graduate credits in the School of Journalism and Mass Communication seminars and colloquia.

MASS COMMUNICATIONS, PH.D.

The Ph.D. degree in mass communications is an interdisciplinary program offered jointly by the Department of Life Sciences Communication and the School of Journalism and Mass Communication.

The program offers several internationally recognized areas of research and teaching excellence:

- civic and political communication
- health and environmental communications
- history of media institutions
- information technologies
- social networking and digital media
- processes and effects of mediated communication
- law and ethics of media
- international and inter-cultural communication
- public opinion
- science and risk communication
- social marketing
- journalism studies
- media ecologies
- race and media

Working closely with their major professor and committee, students draw from courses offered in departments across the campus to develop a plan of study in preparation for independent and original research in their areas of interest.

ADMISSIONS

Applicants for this program are expected to have demonstrated an interest and background in communication research by having earned a thesis-based M.A. or M.S. degree in communication or other relevant disciplines. The admissions committee, however, may accept other evidence of suitable preparation.

Students must meet the minimum requirements for admission set by the Graduate School. Applicants must submit an online application, GRE scores, a statement of purpose, official transcripts from all previously attended institutions, a CV, and three letters of recommendation. Letters of recommendation should come from people who can speak to the scholarly abilities of the applicant. International applicants are required to take and attain a satisfactory score on the Test of English as a Foreign Language (TOEFL), or the International English Language Testing System (IELTS) exam. Test scores must be furnished to the school before the application is considered complete.

For more information, visit the Mass Communications Joint Ph.D. website (<https://masscommphd.wisc.edu>).

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Prospective students should see the program website (<https://masscommphd.wisc.edu/funding>) for funding information.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum 65 credits

Credit Requirement

Minimum 32 credits

Residence Credit Requirement

Minimum Graduate Coursework Requirement At least 50% of the required coursework (33 of 65 credits) must be in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle>).

Overall 3.50 GPA required.

Graduate GPA Requirement

Other Grade Requirements Courses in which the student earns a grade below B do not count toward the 65 credit minimum, but they do count in the cumulative GPA.

Assessments and Examinations Doctoral students must pass preliminary exams once coursework is completed.

Language Requirements No language requirements.

Doctoral Minor/Breadth Requirements Breadth is provided via interdisciplinary training (minor requirement waived).

REQUIRED COURSES

65 credits minimum in theory and methods/statistics courses, selected in consultation with the faculty advisor and approved by the Graduate Committee of the student's home department. Attendance of both seminars in the joint seminar sequence (JOURN/LSC 901 Colloquium in Mass Communication and LSC 700 Colloquium in Life Sciences Communication) is strongly recommended for new graduate students.

Additional requirements are detailed in the Academic Policies and Procedures Handbook for Graduate Work (<https://journalism.wisc.edu/wp-content/blogs.dir/41/files/2017/11/JOINT-Handbook-updated-10-17.pdf>) in the joint Ph.D. program in mass communications.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://journalism.wisc.edu/wp-content/blogs.dir/41/files/2017/11/JOINT-Handbook-updated-10-17.pdf>) is the repository for all of the program's policies and requirements.

updated-10-17.pdf) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

In consultation with the student's advisor, and with program approval, students are allowed to count no more than 33 credits of graduate coursework from other institutions. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

With program approval, up to 7 credits numbered 600 and above from a UW–Madison undergraduate degree are allowed to count toward the degree. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison University Special

In consultation with the student's advisor and with program approval, students are allowed to count no more than 12 credits of coursework numbered 600 and above taken as a UW–Madison Special student. Coursework taken ten years prior to admission to the doctoral program is not allowed to satisfy requirements.

PROBATION

Doctoral students must do the following to maintain satisfactory progress:

1. Earn a minimum 3.5 cumulative GPA by the end of the second semester in residence and maintain that GPA for the duration of the degree program.
2. Remove grades of Incomplete in the semester following their occurrence. A course proposal cannot be approved until all incompletes are removed.
3. Complete preliminary exams within three to six months of completing coursework.
4. Maintain steady progress toward completion of degree, including final oral exam and deposit of dissertation. Fulltime students can expect four to five years; completion will vary for part-time students.

ADVISOR / COMMITTEE

Doctoral committees must include at least two members from outside the Department of Life Sciences Communication and the School of Journalism and Mass Communication.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

OTHER

Applicants are considered for funding as part of the admissions process. We offer a range of funding, including graduate assistantships, fellowships and research scholarship awards.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PROGRAM RESOURCES

We offer two research colloquia (JOURN/LSC 901 and LSC 700) during the academic year where faculty share their research findings and methods and engage students in lively conversations about how to conduct research. We offer a teaching colloquium (JOURN 902) that explores pedagogical principles and applications that prepares students for teaching careers. Teaching assistantships provide hands-on training.

Within our research groups and centers, graduate students work side by side with faculty and with each other, allowing the senior students to mentor younger students and for faculty to mentor students who are not their advisees. Our graduate students organize and host an annual day-long conference where they present their research in a series of panels, and they present their research at conferences around the world.

We offer a series of professional development workshops for graduate students with faculty and alumni panelists. The topics include: navigating the academic job market, exploring the non-academic job market, turning a paper into a presentation and how to find funding for research.

LEARNING OUTCOMES

1. Articulate research problems, potentials, and limits with respect to theory, knowledge, and practice within the field of study. Demonstrating comprehensive and intensive knowledge of the theories, concepts, frameworks, empirical findings, and controversies in the field.
2. Formulate ideas, concepts, designs, and/or techniques beyond the current boundaries of knowledge within the field of study. Demonstrating a comprehensive and intensive knowledge of appropriate and relevant research methods and analytical techniques.
3. Create research or scholarship that makes a substantive contribution to knowledge.
4. Demonstrate breadth within their learning experiences.
5. Advance contributions of the field of study to society.
6. Communicate complex ideas effectively.
7. Foster ethical and professional conduct.

PEOPLE

Faculty: Professors Brossard (LSC Chair), Downey, Friedland, Kim, McLeod, Meiller, Reaves, Robinson, Rojas, Scheufele, D Shah, H Shah (SJMC Chair). Associate Professors: Riddle (SJMC Director of Graduate Studies), Shaw (LSC Director of Graduate Studies), Shepard, Wagner, Wells. Assistant Professors: Cascio, Culver, Graves, McGarr, Palmer, Stenhouse.

KINESIOLOGY

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Kinesiology, Doctoral Minor (p. 867)
- Kinesiology, M.S. (p. 868)
- Kinesiology, Ph.D. (p. 873)
- Occupational Therapy, M.S. (p. 878)
- Occupational Therapy, OTD (p. 881)

PEOPLE

KINESIOLOGY

Faculty: Ausderau, Barnes, Bell, Benedict, Cook, Diffie (Chair), Eldridge, Gruben, Hornberger, Koltyn, Larson, Mason, Pickett, Schrage, Travers, van Kan.

KINESIOLOGY, DOCTORAL MINOR

The Department of Kinesiology's mission is to research, teach and apply knowledge related to movement, exercise and human occupation, with the ultimate goal of enhancing human health, productivity and quality of life. The Department of Kinesiology offers graduate courses that reflect the breadth of the discipline, including biomechanics, exercise psychology, exercise physiology, motor control and behavior, physical activity epidemiology and occupational science. A minor from the Department of Kinesiology is tailored to each student's individual interests, career goals, needs and background. The learning goals for the doctoral minor are to demonstrate an understanding of the major current and past theories, research findings, methodologies and techniques in one or more of the broad areas of inquiry represented within the Department of Kinesiology.

ADMISSIONS

Graduate students in other programs at UW–Madison who plan to minor in kinesiology should contact the Department of Kinesiology graduate studies chair early in their graduate program to ensure acceptance into and adequate mentoring in the minor program (see Information for Prospective Students (<http://kinesiology.education.wisc.edu/kinesiology/academics/graduate-programs/prospective-students>)). When students meet with the graduate studies chair, they will fill out a course plan. The department's graduate studies chair, the student's doctoral committee mentor, and the student must sign the course plan.

REQUIREMENTS

The student must complete 9 credits in kinesiology courses such that all of the following conditions are satisfied:

- All credits must be in courses numbered 300 and above
- At least 3 credits are taken in courses numbered 700 and above
- The student receives a satisfactory grade (C or above) for all credits

- The GPA of the credits counted is at least 3.00
- All credits are taken as a graduate student

PEOPLE

KINESIOLOGY

Faculty: Ausderau, Barnes, Bell, Benedict, Cook, Diffie (Chair), Eldridge, Gruben, Hornberger, Koltyn, Larson, Mason, Pickett, Schrage, Travers, van Kan.

KINESIOLOGY, M.S.

The Department of Kinesiology's mission is to create, interpret, transmit, and apply knowledge related to movement, exercise, and human occupation with the ultimate goal of enhancing human health, productivity, and quality of life.

The M.S. in Kinesiology is available with research specialization in biomechanics, exercise physiology, exercise psychology, motor control and behavior, physical activity epidemiology, and occupational science. The M.S. in Kinesiology with the nonthesis option provides courses that cover the breadth of the kinesiology field and electives, and it may include a final project. This degree supports an interest in coaching/teaching (team or individual), personal training or fitness instruction, or it may supplement the practice of physical therapy, athletic training, or other allied health professions, or any individual purpose a student may have.

The M.S. in Kinesiology combines advanced courses with the option of an intensive research experience. Department research facilities are well equipped, and faculty and graduate students have access to other specialized research facilities across campus. Faculty and graduate student research is currently supported by funding from the state and federal government, research foundations, and private industry. Faculty are affiliated with the Institute on Aging; Cardiovascular Research Center; Center for Neuroscience/Neuroscience Training Program; departments of Biomedical Engineering, Mechanical Engineering, Medicine, Neurology, Population Health Science, and Psychology; McPherson Eye Research Institute; Harlow Center for Biological Psychology; interdepartmental graduate program in Nutritional Sciences; Trace Research and Development Center; VA Geriatric Research and Education Center; Waisman Center; and Wisconsin Alzheimer's Institute.

ADMISSIONS

The application deadline is February 15, applications may be considered after this date.

For admission, the Graduate School requires, as does the Kinesiology department, a minimum 3.0 GPA (on a 4.0=A scale) on the last 60 semester hours (or equivalent) of undergraduate coursework. An applicant must submit official Graduate Record Exam (GRE) scores, academic transcripts from each institution attended, a minimum of three letters of recommendation, and a statement of reasons for graduate study. The statement should name the applicant's intended area(s) of specialization and provide specific details on why the applicant names the area(s). If a professor in the area of specialization agrees to serve as the prospective student's advisor, then the department's graduate office recommends the applicant for admission to the Graduate School. A committee reviews, and an individual advisor is not required for, nonthesis admissions. Please consult the kinesiology website ([https://](https://kinesiology.education.wisc.edu/admissions/graduate)

kinesiology.education.wisc.edu/admissions/graduate) for further details of these requirements and procedures.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules.

Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement	Non-thesis track: 32 credits Occupational Science track: 31 credits All other thesis-based tracks: 30 credits
Minimum Residence Credit Requirement	16 credits
Minimum Graduate Coursework Requirement	At least half of the required degree coursework must be in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.
Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	Course numbered 300 and above with a grade of A, AB, B, or S count toward minimum credit requirement; grades of BC or C count only if equal credits of AB and A offset the lower grades to average B (3.00).
Assessments and Examinations	No formal examination specific to the M.S. is required. Curricular requirements vary among tracks within the program, and in all tracks all didactic courses must be passed, in conformity with GPA and grad requirements, above. For tracks requiring a thesis, the thesis defense committee has discretion to accept or reject the thesis at the student's defense. Repeat defense, if required, is at the discretion of the advisor.
Language Requirements	No language requirements.

REQUIRED COURSES

Biomechanics Track ¹

Code	Title	Credits
Required Courses		
KINES 618	Biomechanics	2-3
STAT/F&W ECOL/ HORT 571	Statistical Methods for Bioscience I	4
KINES 951	Seminar-Biomechanics	2
KINES 991	Research in Physical Activity- Theory and Design	3
KINES 990	Research or Thesis	2-12
KINES 900	Seminar in Kinesiology ²	1
Suggested Elective Courses (chosen in consultation with advisor)		
KINES 614	Biological Factors Influencing Exercise Performance	3
KINES 721	Neural Basis for Movement	3
KINES 773	Cardiorespiratory Adaptions to Environment and Exercise	3
KINES 861	Principles of Motor Control and Learning	3
KINES 961	Seminar in Motor Control and Learning	2

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

² All Kinesiology M.S. and Ph.D. students in biomechanics are required to register for KINES 900 Seminar in Kinesiology each semester they are enrolled in the program.

Exercise Physiology Track ¹

Code	Title	Credits
Required Courses		
ANAT&PHY 435	Fundamentals of Human Physiology ²	5
STAT/F&W ECOL/ HORT 571	Statistical Methods for Bioscience I	4
KINES 615	Laboratory Techniques in Exercise Physiology	2
KINES 773	Cardiorespiratory Adaptions to Environment and Exercise	3
KINES 774	Metabolic Responses to Exercise and Environmental Stress	2
KINES 991	Research in Physical Activity- Theory and Design	3
KINES 990	Research or Thesis	2-12
KINES 953	Human Biodynamics Seminar	1
KINES 900	Seminar in Kinesiology ³	1
Electives (courses selected in consultation with advisor)		minimum of 3
Total minimum credits required for graduation (beyond baccalaureate degree)		30

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

² Kinesiology students complete special content. Contact physiology-enroll@lists.wisc.edu for consent to enroll in ANAT&PHY 435 Fundamentals of Human Physiology. The Department of Neuroscience chair's assistant will then connect you with the ANAT&PHY 435 director for content details, will data-enter your online permission to enroll in ANAT&PHY 435 and reserve your place, and will notify you by email. Please allow at least a week for the permission process to finalize. Department contacts: <https://neuro.wisc.edu/contact-us/>.

³ All Kinesiology M.S. and Ph.D. students in exercise physiology are required to register for KINES 900 Seminar in Kinesiology each semester they are enrolled in the program.

Exercise Psychology Track ¹

Code	Title	Credits
Required Courses		
KINES 991	Research in Physical Activity- Theory and Design	3
KINES 990	Research or Thesis ²	2-12
KINES 900	Seminar in Kinesiology ³	1
Electives		

There are no specific courses required of candidates for the M.S. with specialization in Exercise Psychology. In accordance with Graduate school policy, a minimum of 30 credits is required for the M.S. degree. Electives courses to meet the degree requirements are chosen in consultation with the advisor. Each candidate's program of formal course work and independent study is tailored in a personalized manner to accommodate the individual's research and career goals.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

² Sufficient to meet graduation requirements, chosen in consultation with major advisor.

³ All Kinesiology M.S. and Ph.D. students in Exercise Psychology are required to register for KINES 900 Seminar in Kinesiology each semester they are enrolled in the program.

Motor Control and Behavior Track ¹

Code	Title	Credits
Required Courses		
KINES 991	Research in Physical Activity-Theory and Design	3
KINES 990	Research or Thesis	2-12
KINES 900	Seminar in Kinesiology ²	1
Statistics courses (chosen in consultation with advisor) ³		4-6
Electives (chosen in consultation with advisor) ⁴		
<i>Suggested Courses</i>		
KINES 721	Neural Basis for Movement	3
KINES 861	Principles of Motor Control and Learning	3
KINES 951	Seminar-Biomechanics	2
KINES 961	Seminar in Motor Control and Learning	2
KINES 713	Neural Basis of Normal and Pathological Movement	3

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

² All Kinesiology M.S. and Ph.D. students in Motor Control and Behavior are required to register for KINES 900 Seminar in Kinesiology each semester they are enrolled in the program.

³ Suggested sequence (or equivalent):
1. ED PSYCH 760 Statistical Methods Applied to Education I
2. ED PSYCH 761 Statistical Methods Applied to Education II

⁴ Elective course may be Kinesiology courses not chosen as required courses or courses in related fields (e.g., psychology, neuroscience).

Physical Activity Epidemiology Track ¹

Code	Title	Credits
Required Courses		
KINES/ POP HLTH 791	Physical Activity Epidemiology	3

KINES/ POP HLTH 955	Seminar - Physical Activity Epidemiology	1
KINES 991	Research in Physical Activity-Theory and Design	3
KINES 990	Research or Thesis	2-12
KINES 900	Seminar in Kinesiology ²	1

Electives (chosen from list below or others in consultation with advisor)

ANAT&PHY 435	Fundamentals of Human Physiology	5
KINES 521	Physical Activity and Health	3
KINES 600	Advanced Exercise Psychology	3
KINES 614	Biological Factors Influencing Exercise Performance	3
KINES 700	Psychological Effects of Exercise	3
KINES 773	Cardiorespiratory Adaptions to Environment and Exercise	3
KINES 774	Metabolic Responses to Exercise and Environmental Stress	2
KINES 779	Human Muscle Function in Health and Disease	2
CHEM 341	Elementary Organic Chemistry	3
BMOLCHEM 503	Human Biochemistry	3
STAT/B M I 541	Introduction to Biostatistics	3
STAT/B M I 642	Statistical Methods for Epidemiology	3
POP HLTH/ NUTR SCI 621	Introduction to Nutritional Epidemiology	1
POP HLTH 750	Cancer Epidemiology	2-3
POP HLTH/SOC 797	Introduction to Epidemiology	3
POP HLTH 798	Epidemiologic Methods	3
POP HLTH 802	Advanced Epidemiology: Etiology and Prevention	3

Students will take advanced coursework in various areas as described in the program area synopsis. In accordance with Graduate School policy, a minimum of 30 credits is required for the M.S. degree, and a minimum of 51 credits for the Ph.D. Completion of a thesis will be required for the M.S. degree. The curriculum is intended to provide the student with a sound basis in the adaptations to physical activity and exercise as well as the statistical and methodological tools needed to evaluate relationships between physical activity and health outcomes at the population level. There are three required courses in addition to the thesis or dissertation requirement, and the remaining credits can be chosen in consultation with the graduate advisor to meet the degree objectives.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

² All Kinesiology M.S. and Ph.D. students in Physical Activity Epidemiology are required to register for KINES 900 Seminar in Kinesiology each semester they are enrolled in the program.

Occupational Science Track ¹

Code	Title	Credits
Subject/Field Content		
OCC THER 612	Professional Skills III: Organization and Management in OT Practice	3
OCC THER 613	Professional Skills IV: Community-based OT Practice	2
KINES 900	Seminar in Kinesiology ²	1
KINES 885	Seminar in Occupation and Health	1
OCC THER 671	Scientific Inquiry in OT I: Evidence-Based Practice.	2
OCC THER 672	Scientific Inquiry in Occupational Therapy II: Research Design and Methods	2
OCC THER 673	Scientific Inquiry in OT III: Data Collection and Analysis.	3
OCC THER 674	Scientific Inquiry in OT IV: Scientific Writing for Publication	2
Depth & Breadth Electives 8		
Students are strongly encouraged to select 2-3 courses in a concentration area (Examples: Child & Family Studies, Global Health, Disability Studies, Public Health, Patient Advocacy)		
Research		
KINES 990	Research or Thesis	3

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

² All Kinesiology M.S. and Ph.D. students are required to register for KINES 900 Seminar in Kinesiology each semester they are enrolled in the program. Minimum 2 credits.

Non-Thesis Track ¹

Synopsis: All other tracks within the M.S. in Kinesiology degree are essentially a precursor to Ph.D.-level training, and thus require extensive research experience as part of the degree. The Non-Thesis M.S. track is designed for students who are interested in graduate-level training in Kinesiology, but who are not necessarily interested in a career doing research in the field. Non-Thesis M.S. students: will take graduate-level courses that cover the breadth of the field of Kinesiology; will take additional electives from Kinesiology or from any departments across campus that the students see as fitting their personal educational goals; and may complete a final project of their own design as mentored by consenting faculty.

Purpose of MS: The M.S. in Kinesiology Non-Thesis track is designed to provide broad, graduate-level training in Kinesiology. Students will take advanced coursework in each of the traditional disciplines within the field and also focus on their individual interests by selecting courses as electives. A thesis is NOT required in this track. Students in the Non-Thesis track often express interest in obtaining graduate-level training to support their goal of coaching/teaching in team or individual settings, personal training or fitness instruction, or as a supplement to a practice in physical therapy, athletic training, or some other allied health profession, or for other purposes. We emphasize here that we don't intend the non-thesis track to prepare students for eventual Ph.D. study (although it could, depending on the student and the Ph.D.). Students who want a laboratory-based research experience as part

of their M.S. degree, along with experience in academic writing (M.S. thesis as a traditional precursor to a Ph.D. dissertation), may wish to consider pursuing their M.S. degree through one of the other tracks within Kinesiology.

Code	Title	Credits
First Fall Term		
KINES 721	Neural Basis for Movement	3
KINES 773	Cardiorespiratory Adaptions to Environment and Exercise	3
KINES 991	Research in Physical Activity-Theory and Design	3
First Spring Term		
KINES 700	Psychological Effects of Exercise	3
KINES/ POP HLTH 791	Physical Activity Epidemiology	3
Elective chosen from list below		2
Second Fall Term		
KINES 618	Biomechanics	2-3
KINES 713	Neural Basis of Normal and Pathological Movement	3
Elective chosen from list below		3
Second Spring Term		
KINES 774	Metabolic Responses to Exercise and Environmental Stress	2
KINES 861	Principles of Motor Control and Learning	3
Elective chosen from list below		3
Electives ²		
KINES 521	Physical Activity and Health	3
KINES/MEDICINE/ NURSING 523	Clinical Exercise Testing & Training	3
KINES 614	Biological Factors Influencing Exercise Performance	3
KINES 779	Human Muscle Function in Health and Disease	2
KINES 785	Human Occupation and Health	2-3
KINES 900	Seminar in Kinesiology	1
CURRIC 744	Perspectives in Multicultural Education	3
CURRIC/ELPA 746	The Adult Learner: Implications for Curriculum and Instruction	3
NUTR SCI 625	Advanced Nutrition: Obesity and Diabetes	1
GEN BUS 310	Fundamentals of Accounting and Finance for Non-Business Majors	3
GEN BUS 311	Fundamentals of Management and Marketing for Non-Business Majors	3

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

² Student chooses, based on personal interests/goals, from this list or any other 500-level or higher numbered courses on campus.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://merit-www.education.wisc.edu/kinesiology/wp-content/uploads/sites/12/2017/08/Handbook-Grad-2017-August-27-PDF.pdf>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 15 credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

With program approval, students are allowed to count no more than 15 credits of coursework numbered 300 or above taken in UW–Madison University Special student status. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

An overall GPA below 3.0 will place the student on academic probation. If a 3.0 GPA is not regained in the subsequent semester the student may be dismissed from the program or allowed to continue provisionally for 1 semester based on advisor appeal to the Graduate School.

ADVISOR / COMMITTEE

The department assigns an advisor to each student. For M.S.–non-thesis track, the advisor is the Graduate Studies chair. For all other thesis-based tracks, the advisor is the research mentor.

A thesis committee, for those tracks requiring a thesis, is gathered prior to the thesis proposal in consultation with the faculty advisor and consistent with the department and Graduate School policy (<http://grad.wisc.edu/acadpolicy/#committees>). Normally the proposal committee would continue as the thesis defense committee. The proposal and defense committees consist of 3 members.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

Within the Department, completion of required courses and proposal of the thesis, when applicable, within two years of matriculation is considered satisfactory progress. See the program handbook (<http://kinesiology.education.wisc.edu/docs/kinesiology-documents/grad-program-pols-proceeds-manual-posted-to-web-site-14-oct-2011.pdf?sfvrsn=0>) for more information.

OTHER

Students pursuing research degree generally supported with tuition remission throughout study career. Students pursuing classroom-based (Non-thesis) M.S. occasionally supported, generally without tuition remission (unless they personally locate same via separate department, e.g., Athletics).

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Master fundamental knowledge in at least one of the broad areas of specialization represented in the Department of Kinesiology. (Thesis-based tracks)
2. Demonstrate understanding of major current and past theories, research findings, methodologies, and techniques in their areas of specialization.
3. Identify sources and assemble evidence pertaining to questions or challenges in their area of specialization.

4. Complete an original research project in one of the broad areas of specialization represented in the Department of Kinesiology. (Thesis-based tracks)
5. Select and utilize appropriate methodologies to conduct research, analyze, and interpret resulting data.
6. Prepare a thesis or research report describing their research project.
7. Communicate clearly in ways appropriate to their area of specialization.
8. Demonstrate fundamental knowledge in the broad areas of specialization represented in the Department of Kinesiology. (Non-Thesis based track)
9. Demonstrate an understanding of the major current and past theories, research findings, methodologies and techniques in each of the broad areas of inquiry represented within the Department of Kinesiology.
10. Retrieve and examine scientific literature, evaluate evidence for and against hypotheses, and be able to discuss strengths and weaknesses in existing literature.
11. Recognize and apply principles of professional and ethical conduct. (Thesis-based tracks)
12. Use scientific rigor when designing experiments, collecting and analyzing data, interpreting and reporting results.
13. Recognize and apply principles of professional and ethical conduct. (Non-Thesis based track)

PEOPLE

KINESIOLOGY

Faculty: Ausderau, Barnes, Bell, Benedict, Cook, Diffie (Chair), Eldridge, Gruben, Hornberger, Koltyn, Larson, Mason, Pickett, Schrage, Travers, van Kan.

KINESIOLOGY, PH.D.

The Department of Kinesiology's mission is to create, interpret, transmit, and apply knowledge related to movement, exercise, and human occupation with the ultimate goal of enhancing human health, productivity, and quality of life.

The Ph.D. in Kinesiology is available with research specialization in biomechanics, exercise physiology, exercise psychology, motor control and behavior, physical activity epidemiology, and occupational science.

The Ph.D. in Kinesiology combines advanced courses with the option of an intensive research experience. Department research facilities are well equipped, and faculty and graduate students have access to other specialized research facilities across campus. Faculty and graduate student research is currently supported by funding from the state and federal government, research foundations, and private industry. Faculty are affiliated with the Institute on Aging; Cardiovascular Research Center; Center for Neuroscience/Neuroscience Training Program; departments of Biomedical Engineering, Mechanical Engineering, Medicine, Neurology, Population Health Science, and Psychology; McPherson Eye Research Institute; Harlow Center for Biological Psychology; interdepartmental graduate program in Nutritional Sciences; Trace Research and

Development Center; VA Geriatric Research and Education Center; Waisman Center; and Wisconsin Alzheimer's Institute.

ADMISSIONS

The application deadline is February 15, applications may be considered after this date.

For admission, the Graduate School requires, as does the kinesiology department, a minimum 3.0 GPA (on a 4.0=A scale) on the last 60 semester hours (or equivalent) of undergraduate coursework. An applicant must submit official Graduate Record Exam (GRE) scores, academic transcripts from each institution attended, a minimum of three letters of recommendation, and a statement of reasons for graduate study. The statement should name the applicant's intended area(s) of specialization and provide specific details on why the applicant names the area(s). If a professor in the area of specialization agrees to serve as the prospective student's advisor, then the department's graduate office recommends the applicant for admission to the Graduate School. Please consult the kinesiology website (<https://kinesiology.education.wisc.edu/admissions/graduate>) for further details of these requirements and procedures.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Prospective students should see the program website (<https://kinesiology.education.wisc.edu/academics/grad-program/tuition>) for funding information.

REQUIREMENTS

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MAJOR REQUIREMENTS

MODE OF INSTRUCTION

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Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 51 credits

Minimum Residence Credit Requirement 32 credits

Minimum Graduate Coursework Requirement Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements Course numbered 300 and above with a grade of A, AB, B, or S count toward minimum credit requirement; grades of BC or C count only if equal credits of AB and A offset the lower grades to average B (3.00).

Assessments and Examinations Ph.D. students must:

1. pass all didactic courses in conformity with GPA and grad requirements;
2. pass preliminary exams (<http://grad.wisc.edu/acadpolicy/#preliminaryexaminations>) administered by a three member faculty committee; and
3. successfully propose and defend a dissertation before a five-member committee constituted as above in this chart.

Language Requirements No language requirements.

Doctoral Minor/Breadth Doctoral students must complete a minor, currently minimum 10 credits, either "distributed" (several departments) or in a single outside department. Students Requirements must consult their advisors on minor requirements.

REQUIRED COURSES

Biomechanics Track ¹

Code	Title	Credits
Required Courses		
STAT/F&W ECOL/ HORT 572	Statistical Methods for Bioscience II	4
KINES 900	Seminar in Kinesiology ²	1
KINES 951	Seminar-Biomechanics	2
KINES 990	Research or Thesis	2-12

General Field Requirement

At least 2 graduate level courses of at least 2 credits each in Kinesiology, at UW-Madison, outside of Biomechanics area 4-6

Electives

Chosen in consultation with advisor Remaining Credits

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

² All Kinesiology Ph.D.* students in biomechanics are required to register for KINES 900 Seminar in Kinesiology each semester they are enrolled in the program
* includes dissertations unless registered, instead, for specialization seminar KINES 951 Seminar-Biomechanics; or unless expressly exempted via advisor request to Graduate Studies Committee

Exercise Physiology Track ¹

Code	Title	Credits
Required Courses		
ANAT&PHY 435	Fundamentals of Human Physiology	5
KINES 773	Cardiorespiratory Adaptions to Environment and Exercise	3
KINES 774	Metabolic Responses to Exercise and Environmental Stress	2
KINES 991	Research in Physical Activity-Theory and Design	3

Note: the above courses are only required if not taken as part of an M.S. program

KINES 900	Seminar in Kinesiology ³	1
KINES 953	Human Biodynamics Seminar	1
KINES 999	Independent Reading	1-4

General Field Requirement

At least 2 graduate-level courses of at least 2 credits each in Kinesiology, at UW-Madison, outside of Exercise Physiology area 4-6

Electives (sufficient to meet graduation requirements; chosen in consultation with advisor)

Research

KINES 900	Seminar in Kinesiology	minimum of 8
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¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

² Kinesiology students complete special content. Contact physiology-enroll@lists.wisc.edu for consent to enroll in ANAT&PHY 435. The Department of Neuroscience chair's assistant will then connect you with the ANAT&PHY 435 director for content details, will data-enter your online permission to enroll in ANAT&PHY 435 and reserve your place, and will notify you by email. Please allow at least a week for the permission process to finalize. Department contacts: <https://neuro.wisc.edu/contact-us/>.

³ All Kinesiology M.S. and Ph.D.* students in exercise physiology are required to register for KINES 900 Seminar in Kinesiology each semester they are enrolled in the program.
*Includes dissertators unless registered for specialization seminar KINES 953 Human Biodynamics Seminar or unless expressly exempted via advisor request to Grad Studies Committee.

Exercise Psychology Track ¹

Code	Title	Credits
Required Courses		
KINES 991	Research in Physical Activity-Theory and Design ²	3
KINES 900	Seminar in Kinesiology ³	1

General Field Requirement

At least 2 graduate-level courses of at least 2 credits each in Kinesiology, at UW-Madison, outside of the Exercise Psychology area. 4-6

With the exception of the requirements above, no specific courses are required of candidates for the Ph.D. in Kinesiology with specialization in Exercise Psychology. For the Ph.D., candidates must complete a minimum of 51 credits beyond the baccalaureate degree in accordance with Graduate School policy, but most students in the exercise psychology program elect to take additional credits beyond this minimum. Emphasis is placed on the demonstration of competence in general psychology, exercise psychology, exercise science, statistics and research design, rather than on completion of specific courses. Each candidate's program of formal coursework and independent study is tailored in a personalized manner to accommodate the individual's research and career goals.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

² Ph.D. students needn't take KINES 991 Research in Physical Activity-Theory and Design if their M.S. degree included it or an approved equivalent.

³ All Kinesiology MS and PhD* students in Exercise Psychology are required to register for KINES 900 Seminar in Kinesiology each semester they are enrolled in the program, including dissertations unless registered for the specialization seminar (KINES 951 Seminar-

Biomechanics) or unless expressly exempted via advisor request to the Graduate Studies Committee.

Motor Control and Behavior Track ¹

Code	Title	Credits
Required Courses		
KINES 991	Research in Physical Activity-Theory and Design ²	3
KINES 990	Research or Thesis	2-12
KINES 900	Seminar in Kinesiology ³	1
Statistics courses (chosen in consultation with advisor) ⁴		4-6
General Field Requirements		
At least 2 graduate level courses of at least 2 credits each in Kinesiology, at UW-Madison, outside of the Motor Control & Behavior area.		4-6
Suggested Elective Courses (chosen in consultation with advisor) ⁵		
KINES 721	Neural Basis for Movement	3
KINES 861	Principles of Motor Control and Learning	3
KINES 951	Seminar-Biomechanics	2
KINES 961	Seminar in Motor Control and Learning	2
KINES 713	Neural Basis of Normal and Pathological Movement	3

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

² Required for Ph.D. candidates who did not complete this or an equivalent course as part of their M.S. program.

³ All Kinesiology M.S. and Ph.D. students are required to register for KINES 900 Seminar in Kinesiology each semester they are enrolled in the program. This includes Ph.D. dissertators unless they register for KINES 961 Seminar in Motor Control and Learning or unless they seek and receive express exemption via advisor request to the Grad Studies Committee.

⁴ Suggested statistics sequence (or equivalent):

- ED PSYCH 760 Statistical Methods Applied to Education I¹
- ED PSYCH 761 Statistical Methods Applied to Education II¹

⁵ Elective courses may be Kinesiology courses not chosen as required courses or may be courses in related fields (e.g., Psychology, Neuroscience).

Occupational Science Track ¹

Code	Title	Credits
Required Courses		
Courses in Research Methods, Design, Proposal Development, and Research Ethics ²		6
KINES 991	Research in Physical Activity-Theory and Design	3
KINES 900	Seminar in Kinesiology ³	1
KINES 785	Human Occupation and Health	2-3
KINES 885	Seminar in Occupation and Health	1

General Field Requirements

Two Kinesiology classes of at least 2 credits each outside your focus area (Occupational Science Track specific courses would not qualify for this requirement). 4

Electives

Elective courses are taken in a "concentration area" specific to the area of research. (Examples: ICTR Clinical Trials, Global Health, Prevention Science, Aging, Lifespan Development). Selected in consultation with Faculty Advisor.

Research

KINES 990 Research or Thesis 1-12

- ¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.
- ² Must be completed prior to KINES 991
 - Minimum of one course in Quantitative, Qualitative or Mixed Methods (Examples: ED PSYCH 760 Statistical Methods Applied to Education I, ED PSYCH 761 Statistical Methods Applied to Education II)
 - Minimum of one course on Research Ethics (Examples: MED HIST 728 Biomedical Ethics and Society; NURSING 802 Ethics and the Responsible Conduct of Research; SURG SCI 812 Research Ethics and Career Development.)
- ³ All Kinesiology M.S. and Ph.D. students are required to register for KINES 900 Seminar in Kinesiology each semester they are enrolled in the program

Physical Activity Epidemiology Track ¹

Code	Title	Credits
Required Courses		
KINES/ POP HLTH 791	Physical Activity Epidemiology	3
KINES/ POP HLTH 955	Seminar - Physical Activity Epidemiology	1
KINES 991	Research in Physical Activity-Theory and Design	3
KINES 990	Research or Thesis	2-12
KINES 900	Seminar in Kinesiology ²	1

Electives (chosen from list below or others in consultation with advisor)

ANAT&PHY 435	Fundamentals of Human Physiology	5
KINES 521	Physical Activity and Health	3
KINES 600	Advanced Exercise Psychology	3
KINES 614	Biological Factors Influencing Exercise Performance	3
KINES 700	Psychological Effects of Exercise	3
KINES 773	Cardiorespiratory Adaptions to Environment and Exercise	3
KINES 774	Metabolic Responses to Exercise and Environmental Stress	2
KINES 779	Human Muscle Function in Health and Disease	2
CHEM 341	Elementary Organic Chemistry	3
BMOLCHEM 503	Human Biochemistry	3

STAT/B M I 541	Introduction to Biostatistics	3
STAT/B M I 642	Statistical Methods for Epidemiology	3
POP HLTH/ NUTR SCI 621	Introduction to Nutritional Epidemiology	1
POP HLTH 750	Cancer Epidemiology	2-3
POP HLTH/SOC 797	Introduction to Epidemiology	3
POP HLTH 798	Epidemiologic Methods	3
POP HLTH 802	Advanced Epidemiology: Etiology and Prevention	3

Students will take advanced course work in various areas as described in the program area synopsis. In accordance with Graduate School policy, a minimum of 30 credits is required for the M.S. degree, and a minimum of 51 credits for the Ph.D. The curriculum is intended to provide the student with a sound basis in the adaptations to physical activity and exercise as well as the statistical and methodological tools needed to evaluate relationships between physical activity and health outcomes at the population level. There are three required courses in addition to the thesis or dissertation requirement, and the remaining credits can be chosen in consultation with the graduate advisor to meet the degree objectives.

General Field Requirement

At least 2 graduate level courses of at least 2 credits each in Kinesiology at UW-Madison outside of Physical Activity Epidemiology area.

- ¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.
- ² All Kinesiology M.S. and Ph.D. students in Physical Activity Epidemiology are required to register for KINES 900 Seminar in Kinesiology each semester they are enrolled in the program. Includes dissertators unless registered for specialization seminar KINES/POP HLTH 955 Seminar - Physical Activity Epidemiology or unless expressly exempted via advisor request to Grad Studies Committee.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://merit-www.education.wisc.edu/kinesiology/wp-content/uploads/sites/12/2017/08/Handbook-Grad-2017-August-27-PDF.pdf>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 18 credits of graduate coursework from other institutions. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

With program approval, students are allowed to count no more than 15 credits of coursework numbered 300 or above taken in UW–Madison University Special student status. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

An overall GPA below 3.0 will place the student on academic probation. If a 3.0 GPA is not regained in the subsequent semester the student may be dismissed from the program or allowed to continue provisionally for 1 semester based on advisor appeal to the Graduate School. The Graduate School's probation policy is described in the Graduate School's Academic Policies and Procedures (<http://grad.wisc.edu/acadpolicy/#probation>).

ADVISOR / COMMITTEE

Ph.D. students work with two (or three) committees during their studies.

1. Preliminary exams Committee (three graduate faculty members)
2. Dissertation committee (five members)
 - a. Proposal committee
 - b. Defense committee

Ordinarily the proposal and defense committees have the same membership. Committee members are selected by the student in consultation with the faculty advisor to be consistent with Graduate School policy (<http://grad.wisc.edu/acadpolicy/#committees>).

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years (<http://grad.wisc.edu/acadpolicy/#fiveyearrule>) after passing the preliminary examination may be required to take and pass another preliminary examination to be readmitted to candidacy.

Within the department, completion of required courses and passing preliminary exams within three years of starting the Ph.D. program is considered satisfactory progress. See the program handbook (<https://kinesiology.education.wisc.edu/academics/grad-program>) for more information.

OTHER

Students pursuing research degree generally supported with tuition remission throughout study career. Students pursuing classroom-based (Non-thesis) M.S. occasionally supported, generally without tuition remission (unless they personally locate same via separate department, e.g., Athletics).

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Demonstrate academic mastery in at least one of the broad areas of specialization represented in the Department of Kinesiology.
2. Demonstrate a broad understanding of major current and past theories, research findings, methodologies, and techniques in their area of specialization both orally and in writing.
3. Retrieve and examine scientific literature, evaluate evidence for and against hypotheses, identify knowledge gaps, strengths and weaknesses in existing literature, synthesize knowledge, and develop conclusions.
4. Formulate ideas, concepts, designs and/or techniques beyond the current boundaries of knowledge with their area of specialization.
5. Demonstrate a broad knowledge of the field of kinesiology extending beyond their area of specialization.
6. Develop and complete original research that makes a substantive contribution in advancing their area of specialization.
7. Develop testable hypotheses and predictions for their own realistic and feasible research projects.
8. Conduct independent research and analyze and interpret resulting data.

9. Clearly communicate their ideas in both oral and written form through the preparation and defense of a dissertation.

10. Foster ethical and professional conduct.

11. Use scientific rigor when designing experiments, collecting and analyzing data, interpreting and reporting results.

PEOPLE

KINESIOLOGY

Faculty: Ausderau, Barnes, Bell, Benedict, Cook, Diffie (Chair), Eldridge, Gruben, Hornberger, Koltyn, Larson, Mason, Pickett, Schrage, Travers, van Kan.

OCCUPATIONAL THERAPY, M.S.

The MS–OT (<https://kinesiology.education.wisc.edu/ot/academics/msot>) program is a two-year professional program designed to prepare students for practice. It is accredited by the Accreditation Council on Occupational Therapy Education (ACOTE (<http://www.aota.org/education-careers/accreditation.aspx>)—4720 Montgomery Lane, Suite 200, Bethesda, MD 20814). At the master's level, two years of didactic classroom learning is followed by 24 weeks of supervised fieldwork experiences in a variety of settings. This program meets the requirements for OTR certification set by the National Board for Certification of Occupational Therapy (NBCOT (<http://www.nbcot.org>)).

The occupational therapy program resides in the Department of Kinesiology (<https://kinesiology.education.wisc.edu>) and offers two graduate professional programs, an entry-level master of science (MS–OT) and a post-professional doctor of occupational therapy (OTD (p. 881)). Occupational therapists interested in pursuing advanced research training may also apply to the M.S. (p. 868)/Ph.D. (p. 873) in Kinesiology–Occupational Science Track (<https://kinesiology.education.wisc.edu/academics/grad-program/occupational-sci>). The purpose of the graduate program is to prepare clinicians, researchers, and teachers who possess a solid foundation in both the theoretical and applied aspects of the disciplines of occupational therapy and science.

ADMISSIONS

Applicants for all graduate programs must complete a UW–Madison Graduate School application (<http://grad.wisc.edu/admissions/process>).

M.S. IN OCCUPATIONAL THERAPY (PROFESSIONAL)

Admission to the entry-level professional program in occupational therapy requires:

- Bachelor's degree (or equivalent) from a regionally accredited school of higher education by the start of the program
- Transcripts from each college, university, or technical college attended showing work completed and in progress
- Graduate Record Exam (GRE) scores

- Documentation of paid or volunteer experience in at least two different settings serving persons across the lifespan with physical, behavioral or mental health disabilities
- Direct observation of Registered Occupational Therapists, or Certified Occupational Therapy Assistants, providing services is highly recommended
- Minimum of three letters of recommendation
- Personal statement responding to prompts provided on the graduate application
- At least a "C" or better in the following prerequisite courses or their equivalent:

Code	Title	Credits
PREREQUISITE COURSES (UW-Madison or comparable) *		
Lifespan Development 1 (one of the following): ¹		3
HDFS 362	Development of the Young Child	
ED PSYCH 320	Human Development in Infancy and Childhood	
PSYCH 460	Child Development	
Lifespan Development 2:		3
HDFS 363	Development from Adolescence to Old Age	
Abnormal Psychology:		3
PSYCH 405	Abnormal Psychology	
Statistics:		3
PSYCH 210	Basic Statistics for Psychology	
Anatomy & Physiology: ²		6-8
ANAT&PHY 337	Human Anatomy	
ANAT&PHY 338	Human Anatomy Laboratory	
ANAT&PHY 335	Physiology (with Lab)	

* Further guidelines for acceptable prerequisite coursework may be found here (<https://kinesiology.education.wisc.edu/ot/admissions/admissions-criteria/prerequisites>).

¹ Applicants who complete a lifespan/human development course should complete a second course in child or adult development.

² Applicants may complete 6–8 credits (two semesters) of combined anatomy and physiology (with lab) to fulfill both the anatomy and physiology prerequisite

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Financial assistance, sometimes available to graduate students in occupational therapy, consists of scholarships, fellowships, and teaching, project or research assistant positions. Financial assistance is limited; opportunities vary by program and from year to year. Students who are considering applying for financial support should see the OT Program Tuition, Scholarship & Financial Aid webpage (<https://kinesiology.education.wisc.edu/ot/academics/msot/tuition>) for further information.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Graduate Coursework Requirement 61 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement Half of degree coursework (31 credits out of 61 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires students maintain a graduate grade point average (GPA) of 3.00 (on a 4.00 scale) for courses numbered 300 and above (excluding research) to receive a degree. Conditions for probationary status may require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations No formal examination specific to the M.S. is required. Curricular requirements (all didactic courses) must be passed, in conformity with GPA and grad requirements.

Language Requirements No language requirements.

REQUIRED COURSES

Code	Title	Credits
ANATOMY 622	Human Anatomy-Physical Therapy, Occupational Therapy	6
OCC THER 610	Professional Skills I: Professional Practice in Occupational Therapy	2
OCC THER 611	Professional Skills II: Communication & Interpersonal Skills in OT	2
OCC THER 612	Professional Skills III: Organization and Management in OT Practice	3
OCC THER 613	Professional Skills IV: Community-based OT Practice	2
OCC THER 620	Occupational-based Theory and Practice	2
OCC THER 621	Assessment of Occupational Participation	3
OCC THER 622	Infant and Childhood Occupations and Therapeutic Interventions	4
OCC THER 623	Adolescent and Young Adult Occupations and Therapeutic Interventions	4
OCC THER 624	Middle and Late Adulthood Occupations and Therapeutic Interventions	4
OCC THER 625	Level-I Fieldwork: Infants and Children	1
OCC THER 626	Level-I Fieldwork: Adolescents and Young Adults	1
OCC THER 627	Level-I Fieldwork: Middle and Late Adulthood	1
OCC THER 629	Medical Lectures for Occupational Therapy	2
OCC THER 640	Applied Neuroanatomy for Allied Health Professionals	3
OCC THER 662	Level II Fieldwork A	6

OCC THER 664	Level II Fieldwork B	6
OCC THER 671	Scientific Inquiry in OT I: Evidence-Based Practice.	2
OCC THER 672	Scientific Inquiry in Occupational Therapy II: Research Design and Methods	2
OCC THER 673	Scientific Inquiry in OT III: Data Collection and Analysis.	3
OCC THER 674	Scientific Inquiry in OT IV: Scientific Writing for Publication	2

The MS–OT has a prescribed curriculum of 61 credits, with potential for electives. See Curriculum (<https://kinesiology.education.wisc.edu/ot/academics/msot/curric>) on the OT website.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (https://merit-www.education.wisc.edu/kinesiology/wp-content/uploads/sites/12/2018/01/2018-2019-Handbook-Draft_Updated-1_26_2018.pdf) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 15 credits of graduate course work from other institutions. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

With program approval and payment of the difference in tuition (between special and graduate tuition), students are allowed to count no more than 15 credits of course work numbered 300 or above taken in UW–Madison University Special student status. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School. See Probation (<http://grad.wisc.edu/acadpolicy/#probation>) on the Graduate School website.

grad.wisc.edu/acadpolicy/#probation) on the Graduate School website.

ADVISOR / COMMITTEE

All students must have an assigned advisor to meet UW information management needs, and accordingly, and of its own volition, the department assigns an advisor to each student. Assigned advisors in the M. S. in Occupational Therapy (MS–OT) program are graduate research or clinical faculty. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

Level II fieldwork must be completed within 24 months of completion of coursework.

OTHER

n/a

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. (Foundational Knowledge) Demonstrate an understanding of the physical, psychological and contextual substrates of human occupation in typical and nontypical development.
2. (Foundational Knowledge) Discuss the role of personal and environmental factors on involvement in daily activities and community participation.
3. (Foundational Knowledge) Critically examine and apply theories associated with the science of human occupation and models of interprofessional practice to service delivery.
4. (Foundational Knowledge) Demonstrate knowledge of one's own role and those of other professions to appropriately assess and address the needs of clients and populations served.
5. (Scientific Inquiry and Theory Development) Articulate current problems facing the profession of occupational therapy in an interprofessional context with respect to theory, knowledge and practice.
6. (Scientific Inquiry and Theory Development) Identify and critique current knowledge, theories and evidence to inform practice.

7. (Scientific Inquiry and Theory Development) Demonstrate necessary skills for designing a scholarly proposal that includes a research question, relevant literature, samples, design, measurement and data analysis.

8. (Scientific Inquiry and Theory Development) Participate in scholarly activities that evaluate professional practice, service delivery, and/or professional issues.

9. (Practice Reasoning and Decision Making) Appropriately assess clients' participation in daily life activities and employ an interprofessional approach to determining clients' needs within the context of family and society.

10. (Practice Reasoning and Decision Making) Identify factors within the environment that influence participation in home and community life.

11. (Practice Reasoning and Decision Making) Plan for discharge in collaboration with the client and family and terminate occupational therapy when appropriate.

12. (Professional Conduct) Articulate the values of the occupational therapy profession.

13. (Professional Conduct) Work with individuals of other professions to maintain a climate of mutual respect and shared values.

14. (Professional Conduct) Describe the varied roles of the occupational therapist as practitioner, educator, researcher, and entrepreneur,

15. (Professional Conduct) Establish appropriate therapeutic relationships with individuals, groups, organizations and systems,

16. (Professional Conduct) Use effective interpersonal communication and demonstrate effective and culturally sensitive group communication.

17. (Professional Conduct) Demonstrate use of safety precautions with the client during the process of practice.

18. (Professional Conduct) Demonstrate knowledge of legal and ethical issues related to care in health, education, and community settings.

PEOPLE

Graduate Faculty: Professors Benedict (OT Program Coordinator), Edwards; Associate Professor Larson; Assistant Professors Ausderau, Pickett, Travers. Links to faculty webpages, instructors and program staff are listed here (<https://kinesiology.education.wisc.edu/ot/people>).

ACCREDITATION

ACCREDITATION

Accreditation Council for Occupational Therapy Education (<https://www.aota.org/Education-Careers/Accreditation.aspx>)

Accreditation status: Accredited. Next accreditation review: 2017–2018

CERTIFICATION/LICENSURE

National Board for Certification in Occupational Therapy (<https://www.nbcot.org/en>)

Year of Exam	UW-Madison Graduates: First Attempt	National First Attempt
2016	100%	not available
2015	100%	not available
2014	100%	not available

Note: The table shows pass rates on the national certification exam. Licenses are awarded at the state level.

OCCUPATIONAL THERAPY, OTD

The post-professional OTD program (<https://merit-www.education.wisc.edu/otd>) is a part-time, structured online curriculum serving occupational therapists' need for distance access and flexibility to acquire advanced practice skills. The OTD program trains occupational therapists to become visionary leaders, engage in inter-professional education and practice, and facilitate research translation. Students enter as a cohort in the spring/fall semesters and complete the program over three years of part-time study.

The occupational therapy program resides in the Department of Kinesiology (<https://kinesiology.education.wisc.edu>) and offers two graduate professional programs, an entry-level master of science (MS–OT (p. 878)) and a post-professional doctor of occupational therapy (OTD). Occupational therapists interested in pursuing advanced research training may also apply to the M.S. (p. 868)/Ph.D. (p. 873) in Kinesiology with a track in Occupational Science. The purpose of the graduate program is to prepare clinicians, researchers, and teachers who possess a solid foundation in both the theoretical and applied aspects of the disciplines of occupational therapy and science.

ADMISSIONS

Applicants for all graduate programs must complete a UW–Madison Graduate School application (<http://grad.wisc.edu/admissions/process>).

OTD (POST-PROFESSIONAL)

An official copy of a current state license to practice OT in the U.S. will be required for admission.

A minimum equivalency of 30 UW–Madison credit hours taken as a graduate student beyond the Bachelor's degree is also required. It is expected that most applicants will meet this requirement through having obtained a master's degree in occupational therapy or related field. Individuals with a bachelor's degree in OT may apply but will be required to complete graduate credits to meet any deficiencies (as outlined on our website (<https://merit-www.education.wisc.edu/otd/admissions>)).

In addition, applicants must submit:

- Personal statement responding to prompts provided on the graduate application page;
- Current resume or CV;
- Official transcripts per the instructions on the application page; and
- Letters of recommendation (two required, one additional optional) from professors, co-workers, supervisors, and/or other professionals

who can speak to the applicant's capacity to be an adult learner, potential for leadership, and capabilities to succeed as a graduate student.

Further information about the admissions process can be found here (<https://merit-www.education.wisc.edu/otd/admissions>).

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Scholarships are sometimes available to graduate students in the OTD Program. Financial assistance is limited and opportunities vary from year to year. Students enrolled in the OTD program are not permitted to accept teaching assistantships, project assistantships, research assistantships, or other appointments that would result in a tuition waiver. Students who are considering applying for financial support should see the OTD Tuition, Scholarships and Financial Aid webpage (<https://www.education.wisc.edu/otd/admissions>) for further information.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
No	No	Yes	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules.

Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum 64 credits (34 beyond the M.S.)

Credit Requirement

Minimum 32 credits

Residence

Credit Requirement

Minimum Graduate Coursework Requirement Half of degree coursework (32 credits out of 64 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle>).

Overall 3.00 GPA required.

Graduate GPA Requirement

Other Grade Requirements The Graduate School requires students maintain a graduate grade point average (GPA) of 3.00 (on a 4.00 scale) for courses numbered 300 and above (excluding research) to receive a degree. Conditions for probationary status may require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Curricular requirements (all didactic courses) must be passed, in conformity with GPA and grad requirements, above. Capstone project proposal and final product must be reviewed and approved by a committee of graduate faculty per Graduate School policy.

Language Requirements No language requirements.

Doctoral Minor/Breadth Requirements Breadth is provided via interdisciplinary training (minor requirement waived).

REQUIRED COURSES

The OTD has a prescribed curriculum of 64 credits total, 34 beyond the masters' degree.

Code	Title	Credits
Summer 1		
EPD Professional Literacy Courses (minimum of 2)		
KINES 699	Independent Study	1-4
or OCC THER 890	Inter-Professional Development for Leadership	
Fall 1		
OCC THER 811	Applied Leadership and Management in OT	3

KINES 785	Human Occupation and Health	2-3
Spring 1		
OCC THER 812	Current Trends Shaping Occupational Therapy Practice	3
OCC THER 881	Doctor of Occupational Therapy: Capstone Project I	1
Summer 2		
OCC THER 813	Advanced Practice in Interprofessional Contexts	3
EPD Professional Literacy Courses (minimum of 2)		
KINES 699	Independent Study	1-4
	or OCC THER 890 Inter-Professional Development for Leadership	
Fall 2		
OCC THER 871	Application of Occupational Therapy Evidence in the Practice Environment	2
OCC THER 881	Doctor of Occupational Therapy: Capstone Project I	1
EPD Professional Literacy Courses (minimum of 2)		
KINES 699	Independent Study	1-4
	or OCC THER 890 Inter-Professional Development for Leadership	
Spring 2		
OCC THER 872	Using Information to Optimize Practice	3
OCC THER 881	Doctor of Occupational Therapy: Capstone Project I	1
Summer 3		
EPD Professional Literacy Courses (minimum of 2)		
KINES 699	Independent Study	1-4
	or OCC THER 890 Inter-Professional Development for Leadership	
Course on Communicating OT to Inter-Professional Audiences		3
Fall 3		
OCC THER 881	Doctor of Occupational Therapy: Capstone Project I	1
Course on Advanced Outcome Measurement in Occupational Therapy		3
Spring 3		
Course on Capstone Project V - Project Completion, Presentation and Dissemination		3
EPD Professional Literacy Courses (minimum of 2)		
KINES 699	Independent Study	1-4
	or OCC THER 890 Inter-Professional Development for Leadership	
Total Credits		34-50

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (https://merit-www.education.wisc.edu/kinesiology/wp-content/uploads/sites/12/2018/01/2018-2019-Handbook-Draft_Updated-1_26_2018.pdf) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count up to 30 credits of graduate coursework from other institutions. Coursework should be less than five years old to be considered, additional justification and/or documentation are needed for work taken between five and ten years. Work more than ten years old will not be considered.

UW–Madison Undergraduate

No undergraduate coursework will be allowed to count toward OTD requirements.

UW–Madison University Special

With program approval and payment of the difference in tuition (between University Special and Graduate tuition), students are allowed to count no more than 9 credits of coursework numbered 300 or above taken as a UW–Madison University Special student. These credits are considered part of the total allowable credits available for a student to transfer. Coursework should be less than five years old to be considered; additional justification and/or documentation is needed for work taken between five and ten years. Work more than ten years old will not be considered.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School. See Probation (<http://grad.wisc.edu/acadpolicy/#probation>) on the Graduate School website.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor to meet UW information management needs, and accordingly, and of its own volition, the department assigns an advisor to each student. The advisor is a graduate or clinical faculty member.

To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis. The OTD Program Coordinator will advise students in the early stages of their studies until a permanent advisor is assigned. The advisor may also serve on the student's capstone project committee.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Doctoral degree students who have been absent for five or more consecutive years lose all credits that they have earned before their

absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Prerequisites: State license to practice OT; master's degree or equivalent.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. (Foundational Knowledge) Demonstrate in-depth knowledge of the evolution of the profession, the social and global forces influencing practice, delivery models, policies, and systems, including interprofessional and emerging areas of practice.
2. (Foundational Knowledge) Articulate and apply underlying theories, concepts and techniques of occupational therapy intervention to health promotion and well-being for the prevention of disease and dysfunction.
3. (Scientific Inquiry and Theory Development) Articulate the knowledge, roles and practices of other professions with whom occupational therapists typically engage in practice.
4. (Scientific Inquiry and Theory Development) Formulate systems to gather, analyze and interpret data from a practice setting.
5. (Scientific Inquiry and Theory Development) Translate evidence into best practice for the continued development of the profession.
6. (Scientific Inquiry and Theory Development) Develop and implement an interprofessional, scholarly capstone project that addresses an identified service system, intervention or programmatic problem, relates theory to practice and demonstrates synthesis of advanced knowledge in a practice area.
7. (Scientific Inquiry and Theory Development) Demonstrate an understanding of the process for locating and securing grants and how grants can serve as a fiscal resource for scholarly and programmatic activities.
8. (Scientific Inquiry and Theory Development) Evaluate the outcomes of the capstone project and communicate findings to an interprofessional audience in a clear, understandable manner through a peer-reviewed report or presentation.
9. (Practice Reasoning and Decision Making) Empirically monitor client progress and treatment efficacy in practice.
10. (Practice Reasoning and Decision Making) Identify and apply appropriate tools for measuring practice outcomes at the individual and systems level.

11. (Practice Reasoning and Decision Making) Synthesize current knowledge, available evidence and responses to interventions to inform new approaches to practice problems.

12. (Practice Reasoning and Decision Making) Demonstrate the skills necessary to lead and manage an interprofessional team.

13. (Professional Conduct) Demonstrate commitment to professional growth through the creation, implementation and monitoring of a career development plan.

14. (Professional Conduct) Demonstrate active involvement in professional development, leadership, and advocacy for the benefit of constituents and the profession.

PEOPLE

Graduate Faculty: Professors Benedict (OT Program Coordinator), Edwards; Associate Professor Larson; Assistant Professors Ausderau, Pickett, Travers. Links to faculty webpages, instructors and program staff are listed here (<https://kinesiology.education.wisc.edu/ot/people>).

LA FOLLETTE SCHOOL OF PUBLIC AFFAIRS

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- International Public Affairs, MIPA (p. 884)
- Public Affairs, Doctoral Minor (p. 888)
- Public Affairs, MPA (p. 889)

PEOPLE

Faculty (<http://lafollette.wisc.edu/faculty-staff>): Professors Blank, Cancian, Chinn, Copelovitch, Fletcher, Meyer, Nemet, Smeeding, Weimer, Yackee (director); Associate Professors: Collins, Wallace; Assistant Professors: O'Brien, Tjernstrom; Assistant Professors: Jacobs, O'Brien, Tjernström, Wang; Lecturers: Doyle, Howard, Kozel, Lavigna, McKelvey, Nelson

INTERNATIONAL PUBLIC AFFAIRS, MIPA

The Master of International Public Affairs (MIPA) Program prepares students from the United States and around the world to work in government, in businesses engaged with the global economy, for non-governmental organizations, or with consulting firms analyzing international policies.

The award-winning La Follette School faculty includes economists, political scientists, sociologists, and public affairs scholars who teach the skills and tools needed for a career in public affairs. They are experts in social policy, health policy and management, public administration, public

policy analysis, environmental policy, poverty, and tax policy and government finance.

Beyond campus, the city of Madison, as the state capital, provides a wealth of opportunities for La Follette School students to participate in outreach and acquire practical experience as professional project assistants or interns with public and private entities. Students benefit from the strong relationships that La Follette School faculty have with these organizations, in keeping with the Wisconsin Idea of public service. This includes the Family Impact Seminar and Committee Connect—opportunities that use evidence-based research to inform policymakers and improve public policy.

INTERNATIONAL PUBLIC AFFAIRS DOUBLE DEGREES, DUAL DEGREES, AND CERTIFICATE PROGRAMS

Some students earn additional credentials while they work toward their public affairs degrees. Students must follow double degree (<https://grad.wisc.edu/acadpolicy/?policy=doubleddegrees>) and dual degree (<https://grad.wisc.edu/acadpolicy/?policy=dualdegreesgradprof>) policies. The following combined degree and certificate programs are available:

- Law (Juris Doctorate)
- Master of Public Health
- Master of Science in Urban and Regional Planning
- Doctorate in Neuroscience
- Energy Analysis and Policy Certificate through the Nelson Institute in Environmental Studies
- Business, Environment, & Social Responsibility; Entrepreneurship; or Strategic Innovation offered through the Wisconsin School of Business.
- Certificates from area studies programs

Law and International Public Affairs (J.D./MIPA)

Increasingly, careers in the federal, state and local governments, as well as nonprofit organizations and private sector businesses require an understanding of public administration, policy analysis, and public affairs, as well as law. Many students choose to pursue the dual law and public affairs degree because of their interest in employment in government agencies, government relations law practice, or in other policy-oriented firms and organizations.

For most students the dual-degree program will add about a year of study to the three years it takes to complete law school, but will save approximately one year of study compared to doing the two programs separately.

Public Health and International Public Affairs (MPH/MIPA)

The Master of International Public Affairs (MIPA) and Master of Public Health (MPH) dual-degree program prepares health policy professionals as policy analysts and public managers in the increasingly important area of health care. Dual-degree MIPA/MPH students develop a firm foundation in policy analysis and public management offered by La Follette faculty and a deep substantive knowledge in public health that can only be offered through a program in the School of Medicine and Public Health. The dual degree program generally takes two years and one summer or three years to complete.

Neuroscience and International Public Affairs (PH.D./MIPA)

Advances in neuroscience have important policy implications for child welfare and education, community development, mental health and health care, bioethics and aging, environmental risks and national

security. The Neuroscience and Public Policy Program (NPP) and the La Follette School of Public Affairs courses prepare students to work in the growing array of domestic or international policy jobs involved in the management of science and its integration into policy analysis and design. Students become good scientists and effective communicators, managers, and advocates of good public policy.

Urban and Regional Planning and International Public Affairs (M.S. in URPL/MIPA)

The La Follette School and the Department of Planning and Landscape Architecture offer a three-year double-degree program in urban and regional planning and public affairs that culminates in two degrees: a Master of Science in Urban and Regional Planning and a Master of International Public Affairs degree.

ADMISSIONS

Applicants for the MIPA program should submit transcripts showing undergraduate performance with at least the equivalent of a 3.0 G.P.A. (on a 4.0 scale), three references, a statement of purpose, Graduate Record Exam (GRE) scores, and a resume. Prerequisite courses are introductory microeconomics and introductory macroeconomics, an introductory course in calculus or statistics, a comparative politics or international relations course, and three semesters of language study. Applicants without this background may be admitted with the understanding that these courses will be completed before beginning the program.

Every applicant whose first language is not English and whose complete four-year undergraduate instruction was not in English, must provide official scores from the Test of English as a Foreign Language (TOEFL), International English Language Testing System (IELTS) or the Michigan English Language Assessment Battery (MELAB). The applicant must provide at least one of these minimum standardized test scores: TOEFL computer-based test score 237, TOEFL internet-based test score 92, IELTS score 7, or MELAB 82. Even if a student has the minimum score, the program can require the admitted applicant to take the on-campus ESL exam and register for any recommended English-as-a-second-language course(s) in the first semester of graduate study.

The La Follette School of Public Affairs only admits for the fall semester.

The priority deadline for admission is **January 1**. Applications are accepted after this date on a rolling admission basis, but there is no guarantee that space in the incoming class will be available.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

La Follette School fellowships and scholarships are offered on a merit basis to all public affairs and international public affairs applicants. Priority consideration is given to applications received by **January 1**.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	Yes

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement MIPA: 42 credits
MIPA accelerated track: 36 credits

Minimum Residence Credit Requirement MIPA: 16 credits
MIPA accelerated track: 36 credits

Minimum Graduate Coursework Requirement Half of degree coursework (21 out of 42 total credits) must be completed in graduate-level coursework. For MIPA accelerated track, 21 of 36 must be completed in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements Students must earn a BC or above in all core curriculum coursework. A grade of C is the minimum grade permitted in elective courses that count toward a La Follette School degree.

Assessments and Examinations Requirements are determined by the program.

Language Requirements No language requirement.

REQUIRED COURSES

Students must complete 42 credits, including six core courses, a one-credit professional development seminar, plus eight elective courses. An internship can count for up to three elective credits. The program generally takes two years.

Code	Title	Credits
Required Courses		
PUB AFFR 800	Public Affairs Professional Development Workshop	1
PUB AFFR 850	International Governance	3
PUB AFFR 818	Introduction to Statistical Methods for Public Policy Analysis	3
PUB AFFR 854	Macroeconomic Policy and International Financial Regulation	3
or PUB AFFR 856	Trade, Competition, and Governance in a Global Economy	
PUB AFFR 880	Microeconomic Policy Analysis	3
PUB AFFR 873	Introduction to Policy Analysis	3
PUB AFFR 860	Workshop in International Public Affairs	3
Regional Focus Fields ¹		
Electives		
Students build proficiency beyond the core requirements through elective courses, including:		
PUB AFFR 819	Advanced Statistical Methods for Public Policy Analysis	3
PUB AFFR 827	Administrative Internship	1-3
PUB AFFR/ POLI SCI 871	Public Program Evaluation	3
PUB AFFR/ A A E/ENVIR ST/ POP HLTH 881	Benefit-Cost Analysis	3

¹ Regional focus fields develop broad expertise in a geographic region by clustering courses, including language courses, across several disciplines, typically emphasizing courses in the social sciences. In building regional focus fields, MIPA students take advantage of the university's strong area studies centers, which include:

- African Studies (<http://africa.wisc.edu>)
- East Asian Studies (<http://eastasia.wisc.edu>)
- European Studies (<http://uw-madison-ces.org>)
- Latin American, Caribbean, and Iberian Studies (<http://lakis.wisc.edu>)
- Middle East Studies (<https://mideast.wisc.edu>)

- Russian, East European, and Central Asian Studies (<http://creeca.wisc.edu>)
- South Asian Studies (<http://southasia.wisc.edu>)
- Southeast Asian Studies (<http://seasia.wisc.edu>)

Recommended Two-Year Plan of Study

Code	Title	Credits
Recommended progression		
<i>Fall Year One</i>		
PUB AFFR 800	Public Affairs Professional Development Workshop	1
PUB AFFR 818	Introduction to Statistical Methods for Public Policy Analysis	3
PUB AFFR 850	International Governance	3
PUB AFFR 880	Microeconomic Policy Analysis	3
<i>Spring Year One</i>		
PUB AFFR 854	Macroeconomic Policy and International Financial Regulation ¹	3
PUB AFFR 873	Introduction to Policy Analysis	3
<i>Fall Year Two</i>		
PUB AFFR 856	Trade, Competition, and Governance in a Global Economy ¹	3
<i>Spring Year Two</i>		
PUB AFFR 860	Workshop in International Public Affairs	3

¹ Students must choose either PUB AFFR 854 Macroeconomic Policy and International Financial Regulation in Spring Year One or PUB AFFR 856 Trade, Competition, and Governance in a Global Economy in Fall Year Two.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (http://lafollette.wisc.edu/images/student_services/Handbook_2017-Final.pdf) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 9 credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements. This work does not appear on UW–Madison transcript nor count toward graduate career GPA.

UW–Madison Undergraduate

Up to 7 credits from a UW–Madison undergraduate degree are allowed to count toward the degree. This work will not appear on the student's graduate transcript. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison University Special

With program approval, students are allowed to count no more than 9 credits of coursework numbered 300 or above taken as a UW–Madison University Special student. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

MIPA: 13 credits are advised if a student hold other appointments on campus. Students need advisor approval to take 15 credits.

MIPA accelerated track: 15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

n/a

PROFESSIONAL DEVELOPMENT**GRADUATE SCHOOL RESOURCES**

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PROGRAM RESOURCES**INTERNATIONAL PUBLIC AFFAIRS CAREERS**

Career development is an integral part of the La Follette School experience, and data show extremely high percentages of employment three to six months post-graduation. The Career Services Office offers:

- Visits with local employers as well as regular trips to Washington, D.C., Chicago, and Milwaukee
- Networking opportunities
- Career development seminars with public affairs professionals
- Connections with alumni mentors

The career services coordinator works with students one-on-one to develop essential skills, such as interviewing, writing strong cover letters and resumes, and researching internships and permanent employment. During the first semester course Professional Development Workshop, students also create an individual plan and portfolio that help them proactively move toward their academic and career goals.

La Follette School alumni have held positions with these agencies, organizations, and businesses:

- American Red Cross
- Aspen Institute
- CARE in Afghanistan
- Congressional-Executive Commission on China
- Deloitte
- Governments of Chile, Japan, and Korea
- Peace Corps
- United Nations Development Programme
- U.S. Agency for International Development
- U.S. Central Intelligence Agency
- U.S. Department of Homeland Security
- U.S. Department of State

LEARNING OUTCOMES

1. (Knowledge) Students will demonstrate understanding of major current and past policy debates, research findings, and analytical methodologies in each of the following core areas: microeconomic policy analysis, macroeconomic policy analysis, quantitative tools for policy analysis, policy analysis, and international governance.

2. (Knowledge) Students will demonstrate critical thinking skills. They will retrieve and examine the policy literature and evaluate evidence for and

against hypotheses, identify knowledge gaps, strengths and weaknesses in existing literature, synthesize knowledge, and develop conclusions.

3. (Applied research skills) Students will read, comprehend, and effectively summarize policy research and policy-relevant academic research.

4. (Applied research skills) Students will effectively summarize data for a general (nonacademic) or policy audience.

5. (Applied research skills) Students will demonstrate competency in methods of inferential statistics including those associated with multivariate regression models.

6. (Professional and ethical conduct) Students will identify and appropriately respond to scenarios involving the ethical and professional responsibilities of public administration.

7. (Professional and ethical conduct) Students will demonstrate the ability to maintain human subjects protections when designing studies, collecting data and reporting results.

8. (Professional and ethical conduct) Students will know and adhere to high levels of professional conduct, ethical decision-making and legal and regulatory compliance.

9. (Professional and ethical conduct) Students will demonstrate the ability to maintain fidelity to objective social science-based research methods.

10. (Communication) Students will communicate in clear written language: a real-world policy problem, relevant scholarly studies and practical applications, a policy-analytic method to investigate the problem, and client-oriented advice to mitigate the problem.

11. (Communication) Students will communicate substance of point 1 highly concisely and in language understandable to a non-specialist.

12. (Communication) Students will communicate substance of point 2 orally.

13. (Professional skills and career preparation) Students will develop effective job-seeking tools and utilize job-seeking techniques.

14. (Professional skills and career preparation) Students will complete high quality group projects, including demonstration of effective project management and teamwork.

PEOPLE

Faculty (<http://lafollette.wisc.edu/faculty-staff>): Professors Blank, Cancian, Chinn, Copelovitch, Fletcher, Meyer, Nemet, Smeeding, Weimer, Yackee (director); Associate Professors: Collins, Wallace; Assistant Professors: O'Brien, Tjernstrom; Assistant Professors: Jacobs, O'Brien, Tjernström, Wang; Lecturers: Doyle, Howard, Kozel, Lavigna, McKelvey, Nelson

PUBLIC AFFAIRS, DOCTORAL MINOR

Any student enrolled in a UW–Madison doctoral program can pursue a doctoral minor in Public Affairs. The doctoral minor offers training in the field of public affairs and can be tailored to a student's specific interests.

A doctoral minor in Public Affairs provides breadth and skills in public policy analysis, program evaluation, and public management.

ADMISSIONS

To be approved for the minor in Public Affairs, the candidate must complete the Minor Agreement Form and submit it to the Student Services Coordinator at the La Follette School prior to completion of six credits of minor coursework at UW-Madison. The student must have had at least one college level course in either calculus or statistics and at least one introductory college level course in microeconomics or macroeconomics and received B's or above in these courses. At UW-Madison, STAT 301, ECON 101 and ECON 102 meet these prerequisite requirements.

The student must have a program of study approved by the Associate Director of the La Follette School of Public Affairs and the student's major PhD advisor, early in the student's graduate work.

The student must achieve a 3.0 GPA in courses used to satisfy the minor requirements.

The student may request that one relevant policy course from another UW-Madison graduate department be counted toward the minor with prior approval.

The student is advised to check in with the La Follette Student Services Coordinator; call 608-262-3582 with questions.

Approval of one transfer course is possible. A transcript, syllabus, and course description is required for evaluation.

REQUIREMENTS

The La Follette School of Public Affairs doctoral minor requires 12 credits or four 3-credit courses.

Two courses, or six credits must be chosen from the following upper level La Follette School policy analysis or management courses, and at least one of the two courses must be a policy analysis course. PUB AFFR 818 should be taken before PUB AFFR 819 and PUB AFFR/POLI SCI 871 unless the student has already taken a graduate level statistical analysis course.

Code	Title	Credits
PUB AFFR 818	Introduction to Statistical Methods for Public Policy Analysis	3
PUB AFFR 819	Advanced Statistical Methods for Public Policy Analysis	3
PUB AFFR/ POLI SCI 871	Public Program Evaluation	3
PUB AFFR 873	Introduction to Policy Analysis	3
PUB AFFR/POLI SCI/ URB R PL 874	Policy-Making Process	3
PUB AFFR/ POLI SCI 875	Public Personnel Administration	3
PUB AFFR/POLI SCI/ URB R PL 878	Public Management	3
PUB AFFR 880	Microeconomic Policy Analysis	3

PUB AFFR/ A A E/ENVIR ST/ POP HLTH 881	Benefit-Cost Analysis	3
PUB AFFR/ POLI SCI 885	Advanced Public Management: Craft, Constraints and Accountability	3

The other two courses, or six credits may come either from other courses listed in (2) or from the following elective courses offered by the La Follette school of Public Affairs:

Code	Title	Credits
PUB AFFR/ ENVIR ST/ URB R PL 809	Introduction to Energy Analysis and Policy	3
PUB AFFR 864	Health Policy and Policy Design	3
PUB AFFR/ ENVIR ST/ POLI SCI 866	Global Environmental Governance	3
PUB AFFR/ POLI SCI 875	Public Personnel Administration	3
PUB AFFR/ SOC WORK 887	Nonprofit Leadership	3
PUB AFFR 888	Comparative and National Social Policy	3
PUB AFFR 974	Topics in Public Affairs	3

PEOPLE

Faculty (<http://lafollette.wisc.edu/faculty-staff/>): Professors Blank, Cancian, Chinn, Copelovitch, Fletcher, Meyer, Nemet, Smeeding, Weimer, Yackee (director); Associate Professors: Collins, Wallace; Assistant Professors: O'Brien, Tjernstrom; Assistant Professors: Jacobs, O'Brien, Tjernström, Wang; Lecturers: Doyle, Howard, Kozel, Lavigna, McKelvey, Nelson

PUBLIC AFFAIRS, MPA

The Master of Public Affairs (MPA) Program provides education in public management and policy analysis that prepares students for careers in public policy and administration within the public, private, and nonprofit sectors.

The award-winning La Follette School faculty includes economists, political scientists, sociologists, and public affairs scholars who teach the skills and tools needed for a career in public affairs. They are experts in social policy, health policy and management, public administration, public policy analysis, environmental policy and management, poverty, and tax policy and government finance.

Beyond campus, the city of Madison, as the state capital, provides a wealth of opportunities for La Follette School students to participate in outreach and acquire practical experience as professional project assistants or interns with public and private entities. Students benefit from the strong relationships that La Follette School faculty have with these organizations, in keeping with the Wisconsin Idea of public service. This includes the Family Impact Seminar and Committee Connect—

opportunities that use evidence-based research to inform policymakers and improve public policy.

PUBLIC AFFAIRS COMBINED DEGREES AND CERTIFICATE PROGRAMS

Some students earn additional credentials while they work toward their public affairs degrees. Students must follow double degree (<https://grad.wisc.edu/acadpolicy/?policy=doubleddegrees>) and dual degree (<https://grad.wisc.edu/acadpolicy/?policy=dualdegreesgradprof>) policies. The following combined degree and certificate programs are available:

- Law (Juris Doctorate)
- Master of Public Health
- Master of Science in Urban and Regional Planning
- Doctorate in Neuroscience
- Energy Analysis and Policy Certificate through the Nelson Institute in Environmental Studie
- Business, Environment, & Social Responsibility; Entrepreneurship; or Strategic Innovation offered through the Wisconsin School of Business.

Law and Public Affairs (J.D./MPA)

Increasingly, careers in the federal, state and local governments, as well as nonprofit organizations and private sector businesses require an understanding of public administration, policy analysis, and public affairs, as well as law. Many students choose to pursue the dual law and public affairs degree because of their interest in employment in government agencies, government relations law practice, or in other policy-oriented firms and organizations.

For most students the dual-degree program will add about a year of study to the three years it takes to complete law school, but will save approximately one year of study compared to doing the two programs separately.

Public Health and Public Affairs (MPH/MPA)

The Master of Public Affairs (MPA) and Master of Public Health (MPH) dual-degree program prepares health policy professionals as policy analysts and public managers in the increasingly important area of health care. Dual-degree MPA/MPH students develop a firm foundation in policy analysis and public management offered by La Follette faculty and a deep substantive knowledge in public health that can only be offered through a program in the School of Medicine and Public Health. The dual degree program generally takes two years and one summer or three years to complete.

Neuroscience and Public Affairs (Ph.D./MPA)

Advances in neuroscience have important policy implications for child welfare and education, community development, mental health and health care, bioethics and aging, environmental risks and national security. The Neuroscience and Public Policy Program (NPP) and the La Follette School of Public Affairs courses prepare students to work in the growing array of domestic or international policy jobs involved in the management of science and its integration into policy analysis and design. Students become good scientists and effective communicators, managers, and advocates of good public policy.

Urban and Regional Planning and Public Affairs (M.S. in URPL/MPA)

The La Follette School and the Department of Planning and Landscape Architecture offer a three-year double-degree program in Urban and Regional Planning and Public Affairs that culminates in two degrees: a

Master of Science in Urban and Regional Planning and a Master of Public Affairs degree.

ADMISSIONS

Applicants for the MPA program should submit official transcripts showing undergraduate performance with at least the equivalent of a 3.0 G.P.A. (on a 4.0 scale), three references, a statement of purpose, Graduate Record Exam (GRE) scores, and a resume. Prerequisite courses are an introductory course in microeconomics, an introductory course in calculus or statistics, and an introductory American government course. Applicants without this background may be admitted with the understanding that these courses will be completed before beginning the program.

Every applicant whose first language is not English and whose complete four-year undergraduate instruction was not in English, must provide official scores from the Test of English as a Foreign Language (TOEFL), International English Language Testing System (IELTS) or the Michigan English Language Assessment Battery (MELAB). The applicant must provide at least one of these minimum standardized test scores: TOEFL computer-based test score 237, TOEFL internet-based test score 92, IELTS score 7, or MELAB 82. Even if a student has the minimum score, the program can require the admitted applicant to take the on-campus ESL exam and register for any recommended English-as-a-second-language course(s) in the first semester of graduate study.

The La Follette School of Public Affairs only admits for the fall semester.

The priority deadline for admission is **January 1**. Applications are accepted after this date on a rolling admission basis, but there is no guarantee that space in the incoming class will be available.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

La Follette School fellowships and scholarships are offered on a merit basis to all public affairs and international public affairs applicants. Priority consideration is given to applications received by **January 1**.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	Yes

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement MPA: 42 credits
MPA with accelerated track: 36 credits

Minimum Residence Credit Requirement MPA: 16 credits
MPA with accelerated track; 36 credits

Minimum Graduate Coursework Requirement Half of degree coursework (21 out of 42 total credits) must be completed in graduate-level coursework. For MPA accelerated track, 21 of 36 must be completed in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements Students must earn a BC or above in all core curriculum coursework. A grade of C is the minimum grade permitted in elective courses that count toward a La Follette School degree.

Assessments and Examinations Requirements are determined by the program.

Language Requirements No language requirement.

REQUIRED COURSES

Students must complete 42 credits, including six core courses, a 1-credit professional development seminar, plus eight elective courses. An internship can count for up to 3 elective credits. The program generally takes two years.

Six required courses are the foundation of the MPA degree program:

Code	Title	Credits
PUB AFFR 800	Public Affairs Professional Development Workshop	1
PUB AFFR/POLI SCI/ URB R PL 874	Policy-Making Process	3
PUB AFFR 818	Introduction to Statistical Methods for Public Policy Analysis	3
PUB AFFR 880	Microeconomic Policy Analysis	3
PUB AFFR/POLI SCI/ URB R PL 878	Public Management	3
PUB AFFR 873	Introduction to Policy Analysis	3
PUB AFFR 869	Workshop in Public Affairs	3

MPA students are also encouraged to build proficiency beyond the core analytical requirements by completing at least one of the following:

Code	Title	Credits
PUB AFFR 819	Advanced Statistical Methods for Public Policy Analysis	3
PUB AFFR/ POLI SCI 871	Public Program Evaluation	3
PUB AFFR/ A A E/ENVIR ST/ POP HLTH 881	Benefit-Cost Analysis	3

In addition to the required core courses, MPA students choose electives to develop specialized knowledge in policy fields that match their interests and career goals. Guided by faculty advisors, students typically choose electives that build on the expertise of La Follette School faculty across a number of well-established policy fields. Students can also take advantage of the wide range of courses offered throughout the university.

Recommended Electives in Public Affairs:

Code	Title	Credits
PUB AFFR 819	Advanced Statistical Methods for Public Policy Analysis	3
PUB AFFR 827	Administrative Internship	1-3
PUB AFFR/ POLI SCI 871	Public Program Evaluation	3

PUB AFFR/ A A E/ENVIR ST/ POP HLTH 881	Benefit-Cost Analysis	3
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Recommended Two-Year Plan of Study

Code	Title	Credits
Recommended progression		
<i>Fall Year One</i>		
PUB AFFR 800	Public Affairs Professional Development Workshop	1
PUB AFFR 818	Introduction to Statistical Methods for Public Policy Analysis	3
PUB AFFR 880	Microeconomic Policy Analysis	3
PUB AFFR/POLI SCI/ URB R PL 874	Policy-Making Process	3
<i>Spring Year One</i>		
PUB AFFR 873	Introduction to Policy Analysis	3
PUB AFFR/POLI SCI/ URB R PL 878	Public Management	3
<i>Spring Year Two</i>		
PUB AFFR 869	Workshop in Public Affairs	3

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (http://lafollette.wisc.edu/images/student_services/Handbook_2017-Final.pdf) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 9 credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements. This work does not appear on UW–Madison transcript nor count toward graduate career GPA.

UW–Madison Undergraduate

Up to 7 credits from a UW–Madison undergraduate degree are allowed to count toward the degree. This work will not appear on the student's graduate transcript. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison University Special

With program approval, students are allowed to count no more than 9 credits of coursework numbered 300 or above taken as a UW–Madison University Special student. Coursework

earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure they are making satisfactory progress toward a degree, the Graduate School expects that students meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

MPA: 13 credits are advised if a student hold other appointments on campus. Students need advisor approval to take 15 credits.

MPA with accelerated track: 15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

n/a

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PROGRAM RESOURCES

PUBLIC AFFAIRS CAREERS

Career development is an integral part of the La Follette School experience, and data show extremely high percentages of employment three to six months post-graduation. The Career Services Office offers:

- Visits with local employers as well as regular trips to Washington, D.C., Chicago, and Milwaukee
- Networking opportunities
- Career development seminars with public affairs professionals
- Connections with alumni mentors

The career services coordinator works with students one-on-one to develop essential skills, such as interviewing, writing strong cover letters and resumes, and researching internships and permanent employment. During the first-semester course Professional Development Workshop, students also create an individual plan and portfolio that help them proactively move toward their academic and career goals.

La Follette School alumni work in all levels of government, nonprofit organizations, and the private sector. Popular positions include policy analyst, consultant, executive director, research analyst, project manager, and government liaison. MPA alumni have held positions with these agencies, organizations, and businesses:

- Congressional Research Service
- Deloitte
- Duke Margolis Health Policy Center
- Federal Bureau of Investigation
- Grant Thornton
- National Council on Crime and Delinquency
- Oregon Legislative Fiscal Office
- UW–Madison Center for Education Research
- U.S. Government Accountability Office
- U.S. Department of Transportation
- Wisconsin Department of Health Services
- Wisconsin Legislative Audit Bureau

LEARNING OUTCOMES

1. (Knowledge) Demonstrate understanding of major current and past policy debates, research findings, and analytical methodologies in each of the following core areas: microeconomic policy analysis, quantitative tools for policy analysis, policy analysis, the policymaking process, and public management.
2. (Knowledge) Demonstrate critical thinking skills. They will retrieve and examine the policy literature and evaluate evidence for and against hypotheses, identify knowledge gaps, strengths and weaknesses in existing literature, synthesize knowledge, and develop conclusions.
3. (Applied Research Skills) Read, comprehend, and effectively summarize policy research and policy-relevant academic research.
4. (Applied Research Skills) Effectively summarize data for a general (non-academic) or policy audience.

5. (Applied Research Skills) Demonstrate competency in methods of inferential statistics including those associated with multivariate regression models.

6. (Professional and Ethical Conduct) Identify and appropriately respond to scenarios involving the ethical and professional responsibilities of public administration.

7. (Professional and Ethical Conduct) Demonstrate the ability to maintain human subjects protections when designing studies, collecting data and reporting results.

8. (Professional and Ethical Conduct) Know and adhere to high levels of professional conduct, ethical decision-making and legal and regulatory compliance.

9. (Professional and Ethical Conduct) Demonstrate the ability to maintain fidelity to objective social science-based research methods.

10. (Communication) Communicate in clear written language: a real-world policy problem, relevant scholarly studies and practical applications, a policy-analytic method to investigate the problem, and client-oriented advice to mitigate the problem.

11. (Communication) Communicate substance of point 1 highly concisely and in language understandable to a non-specialist.

12. (Communication) Communicate substance of point 2 orally.

13. (Professional Skills and Career Preparation) Develop effective job-seeking tools and utilize job-seeking techniques.

14. (Professional Skills and Career Preparation) Complete high quality group projects, including demonstration of effective project management and teamwork.

PEOPLE

Faculty (<http://lafollette.wisc.edu/faculty-staff/>): Professors Blank, Cancian, Chinn, Copelovitch, Fletcher, Meyer, Nemet, Smeeding, Weimer, Yackee (director); Associate Professors: Collins, Wallace; Assistant Professors: O'Brien, Tjernstrom; Assistant Professors: Jacobs, O'Brien, Tjernström, Wang; Lecturers: Doyle, Howard, Kozel, Lavigna, McKelvey, Nelson

LANGUAGE INSTITUTE

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Second Language Acquisition, Doctoral Minor (p. 894)
- Second Language Acquisition, Ph.D. (p. 895)

PEOPLE

SLA Core Faculty: Professors Chavez (German, Nordic, and Slavic), Evans-Romaine (German, Nordic, and Slavic), Frantzen (Spanish and Portuguese), Hawkins (Curriculum and Instruction), Mori (Asian Languages and Cultures), Thompson (African Cultural Studies), Tochon (Curriculum and Instruction), Young (English); Associate Professors

Allen (French & Italian), Geyer (Asian Languages and Cultures; SLA minor advisor), Stafford (Spanish and Portuguese; SLA Director), Pacheco (Curriculum and Instruction) Vieira (English); Assistant Professors Cho (English) and Prasad (Curriculum and Instruction)

Staff: Wendy Johnson (SLA coordinator), Dianna Murphy (SLA core member), Malliga Somasundaram (Financial and Payroll Specialist)

SECOND LANGUAGE ACQUISITION, DOCTORAL MINOR

The Option A minor in second language acquisition (SLA) offers graduate students both a theoretical and a practical background in the increasingly important area of SLA. After completing the minor, students will be prepared to understand research in SLA and to develop teaching curricula based on principles of second language learning and teaching.

Students must come to the SLA minor with a minimal background in language teaching methodology and in linguistics, obtained through the listed prerequisite courses or their equivalents.

ADMISSIONS

Students wishing to minor in SLA should first contact the relevant SLA committee member (<http://sla.wisc.edu/people/faculty>) in their department who will refer them to the SLA minor advisor. Students declaring the minor are required to meet with Professor Naomi Geyer (nfgeyer@wisc.edu), SLA minor advisor, before registering for SLA minor courses.

REQUIREMENTS

The SLA minor consists of 9 credits: a required course and two elective courses. Students without a background in linguistics and language pedagogy are encouraged to take introductory linguistics and teaching methodology courses before starting the SLA minor. Students may transfer up to 3 credits from prior graduate work, upon approval.

All students are required to take ENGL 318 Second Language Acquisition or CURRIC 673 Learning Second Language and Literacies. Students also choose two courses from the approved SLA list. With approval of the SLA minor advisor, students may count up to 3 credits (one course) of prior graduate study toward the minor.

Approved SLA course list

Code	Title	Credits
African Cultural Studies		
AFRICAN 701	Advanced Topics in African Linguistics ¹	3
Curriculum and Instruction		
CURRIC 673	Learning Second Language and Literacies	1-6
CURRIC 674	Advanced Methods in Teaching English as a Second Language	3-6
CURRIC 675	General Seminar ¹	1-3
CURRIC 743	Educational Technology for Deep Language Learning ²	1-3

CURRIC 964	Seminar in World Language Education	1-3
CURRIC 975	General Seminar ²	2-3
English		
ENGL 414	Global Spread of English ³	3
ENGL 420	Topics in English Language and Linguistics	3
ENGL 703	Research Methods in Composition Studies	3
ENGL/SOC 710	Interaction Analysis: Talk as Social Organization	3
ENGL 711	Research Methods in Applied Linguistics	3
ENGL 713	Topics in Contemporary English Linguistics ¹	3
ENGL 715	Advanced Second Language Acquisition	3
ENGL 905	Seminar-Topics in Applied English Linguistics ¹	3
French and Italian		
FRENCH/ITALIAN 821	Issues in Methods of Teaching French and Italian ^{1,2}	1-3
German		
GERMAN 727	Topics in Applied Linguistics ¹	3
Sociology		
SOC 735	Ethnomethodology & Conversation Analysis	3
Spanish		
Note: Spanish courses are generally offered in Spanish; contact instructor		
SPANISH 544	Contemporary Issues in Applied Spanish Linguistics ²	3
SPANISH 630	Topics in Hispanic Linguistics ²	3
SPANISH 815	Seminar in Language: Modern Spanish ²	3

¹ Topics courses. Students should see the SLA Minor Advisor for approval of topics appropriate for the minor.

² Courses must be taken for a total of 3 credits, in one or multiple enrollments.

³ Instructor and SLA advisor consent required.

PEOPLE

SLA Core Faculty: Professors Chavez (German, Nordic, and Slavic), Evans-Romaine (German, Nordic, and Slavic), Frantzen (Spanish and Portuguese), Hawkins (Curriculum and Instruction), Mori (Asian Languages and Cultures), Thompson (African Cultural Studies), Tochon (Curriculum and Instruction), Young (English); Associate Professors Allen (French & Italian), Geyer (Asian Languages and Cultures; SLA minor advisor), Stafford (Spanish and Portuguese; SLA Director), Pacheco (Curriculum and Instruction) Vieira (English); Assistant Professors Cho (English) and Prasad (Curriculum and Instruction)

Staff: Wendy Johnson (SLA coordinator), Dianna Murphy (SLA core member), Malliga Somasundaram (Financial and Payroll Specialist)

SECOND LANGUAGE ACQUISITION, PH.D.

Second language acquisition (SLA) is the systematic study of learning, using, and sometimes losing any form of language beyond the mother tongue. SLA is a burgeoning research field because today there are more people on the planet who use at least two languages than there are monolinguals. For individual learners and for every community in diaspora, second language acquisition is an experience that challenges their knowledge of language, their understanding of different cultures, and their personal identities. The experiences and challenges surrounding SLA are studied by scholars whose training is in a variety of fields—linguistics, psychology, sociology, education, anthropology, and communication arts—a variety that makes the study of SLA richly interdisciplinary.

The Ph.D. Program in Second Language Acquisition at the University of Wisconsin–Madison is a rigorous interdisciplinary academic program that embodies the university’s mission to foster the study of globally important issues. In their coursework, students in the program learn from and collaborate with experienced and distinguished faculty in many departments and, through their original dissertation research, students generate and contribute new knowledge to the field. Students develop a thorough understanding of the scope of SLA as a field of inquiry, and develop and refine research skills that will serve them as they define and pursue their own research agenda. A Ph.D. in SLA opens the door to scholarly and professional careers as university faculty, directors of foreign language programs, educational policy makers, and multilingual specialists.

ADMISSIONS

The Ph.D. Program in SLA requires a master’s degree in a foreign language, English, applied linguistics, linguistics, or education. It also requires applicants to submit GRE scores from an exam administration within five years before application to the SLA program. Please refer to the SLA website (<https://sla.wisc.edu/admissions>) for application deadlines, required application materials, and required modes of submitting these materials. In addition, general requirements for admission stipulated by the graduate school (e.g., evidence of English proficiency for certain international students) apply.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Students in the SLA program, depending on their qualifications, may receive financial support through several departments, programs, and institutes. Students with a background in foreign language or English teaching may work as graduate teaching assistants (TAs) in departments in which those languages are taught. Other students work as graduate project assistants (PA) for the Language Institute or other units on campus. In addition to these TA and PA positions, select SLA students receive university fellowships (including the Advanced Opportunity Fellowships) upon entry into the program or when working on their dissertations. If they meet the specific eligibility criteria, students may also compete, with the program’s support, in other grant and fellowship competitions, such as Foreign Language and Area Studies (FLAS) Fellowships. Additional funding opportunities are included in the information for current students on the SLA website (<https://sla.wisc.edu/content/funding-resources>).

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum 51 credits
Credit
Requirement

Minimum Residence Credit Requirement	36 coursework credits plus 9 dissertation credits, for a total of 45 credits.
Minimum Graduate Coursework Requirement	Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle).
Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	Incompletes must be resolved by the end of the next fall or spring term in which the student is enrolled. In addition, all incompletes must be resolved before students may take any portion of the preliminary examination.
Assessments and Examinations	Students must take preliminary exams within one semester of completing coursework. The dissertation proposal must be approved by the student's dissertation proposal committee no later than one calendar year after the student becomes a dissertator. The last step in completing the Ph.D. in Second Language Acquisition is the successful defense of a doctoral thesis or dissertation, followed by its deposit with the Graduate School.
Language Requirements	Typically, the student must demonstrate an advanced level of academic oral and reading proficiency in two languages prior to taking preliminary exams. A plan for meeting this requirement is developed by the student and advisor during the student's first semester in the Program. The plan must be approved by the advisor and the SLA steering committee by the end of the first academic year.
Doctoral Minor/Breadth Requirements	Because of the broad, interdisciplinary nature of the SLA program course requirements, a minor is not required. A minor is optional, and, in some cases, may be strongly suggested. Students must submit a short statement (2-3 pages) at the end of their third semester, discussing how the courses that they have taken so far, as well as those that they plan to take in the future semester(s), inform their dissertation research and their envisioned career path.

REQUIRED COURSES

Code	Title	Credits
Required Courses		
ENGL 318	Second Language Acquisition	3
ENGL 711	Research Methods in Applied Linguistics	3
Research Methods		6
<i>Quantitative Methods (choose one):</i>		
ED PSYCH 760	Statistical Methods Applied to Education I	
ED PSYCH 761	Statistical Methods Applied to Education II	
SOC/ C&E SOC 360	Statistics for Sociologists I	

Qualitative Methods (choose one):

CURRIC 714	Research and Evaluation Paradigms in Curriculum and Instruction
CURRIC 715	Design of Research in Curriculum and Instruction
CURRIC/ COUN PSY/ ED POL/ ED PSYCH/ELPA/ RP & SE 719	Introduction to Qualitative Research
CURRIC 916	Smr. Special Topics in Research & Evaluation in Curriculum & Instruction (with appropriate topic)
CURRIC 975	General Seminar (with appropriate topic)
ENGL 703	Research Methods in Composition Studies

Electives	30
Dissertation Credits ¹	9
Total Credits	51

¹ Students take a minimum of 9 dissertation credits (three semesters); in most cases four or more semesters of enrollment in dissertator credits is likely. Students enroll in dissertator credits in their advisor's department and will likely need to obtain authorization from the department to register. An advisor, under certain circumstances, may permit the student to replace the 3 dissertation credits with another 3-credit graduate course that directly supports the dissertation.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://sla.wisc.edu/content/policies-and-guidelines>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count up to 6 credits of graduate coursework from other institutions or the UW–Madison. Coursework earned ten years or more prior to admission to the SLA Program is not allowed to satisfy requirements.

UW–Madison Undergraduate

Prior coursework from the UW–Madison undergraduate career may not be applied toward the program.

UW–Madison University Special

Prior coursework from the UW–Madison University Special student career may not be applied toward the program.

PROBATION

Those students not meeting satisfactory progress requirements may be put on probation for a semester.

ADVISOR / COMMITTEE

Students are required to meet with their advisor at least once each semester to review their progress, select courses, and to discuss any outstanding issues or questions.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Students must submit plans for completing the emphasis requirement and the language requirement for approval by the steering committee within their first year of the program.

Students typically complete all of the coursework requirements within two years of enrolling in the Program. Students are required to complete all coursework and fulfill the language requirement before taking the preliminary examinations.

Students must take the preliminary examination within one semester of completing coursework.

Graduate School regulations require Ph.D. candidates to defend their dissertation five years from the date of passing their preliminary examinations.

OTHER

Students in the SLA program are typically funded through campus teaching assistantships, project assistantships or through fellowships. Contact the program for more details.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Demonstrate a strong overall understanding of the scope of the discipline of SLA (e.g., the theories on which research in the field is based; the types of questions that researchers in SLA address; and the variety of techniques used to answer these questions). Demonstrate an in-depth understanding of theories and research findings related to their focal areas of interest.

2. Develop an original research plan that advances a specific area of SLA. Retrieve, evaluate, and interpret academic publications, and use this information to identify a gap in the extant research and to develop theoretical frameworks and research designs for their own research projects. Learn to design realistic and feasible research projects and to prepare necessary protocols.

3. Collect data following relevant protocols and analyze/interpret the resulting data. Reflect on the procedures and results of their own projects to identify strengths, limitations, and implications.

4. Develop skills for disseminating their research in a variety of professional venues and domains through both presentations and manuscript preparation.

5. Participate in and communicate effectively as members of a professional community. Seek opportunities to engage in service to the program, the university and/or the wider community.

PEOPLE

SLA Core Faculty: Professors Chavez (German, Nordic, and Slavic), Evans-Romaine (German, Nordic, and Slavic), Frantzen (Spanish and Portuguese), Hawkins (Curriculum and Instruction), Mori (Asian Languages and Cultures), Thompson (African Cultural Studies), Tochon (Curriculum and Instruction), Young (English); Associate Professors Allen (French & Italian), Geyer (Asian Languages and Cultures; SLA minor advisor), Stafford (Spanish and Portuguese; SLA Director), Pacheco (Curriculum and Instruction) Vieira (English); Assistant Professors Cho (English) and Prasad (Curriculum and Instruction)

Staff: Wendy Johnson (SLA coordinator), Dianna Murphy (SLA core member), Malliga Somasundaram (Financial and Payroll Specialist)

LANGUAGE SCIENCES

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Linguistics, Doctoral Minor (p. 897)
- Linguistics, M.A. (p. 898)
- Linguistics, Ph.D. (p. 900)

PEOPLE

Faculty: Professors Li, Macaulay, Macken, Raimy (Chair), Salmons, Valentine; Lecturer Shields

LINGUISTICS, DOCTORAL MINOR

REQUIREMENTS

The doctoral minor consists of 12 credits chosen in consultation with the chair of the department, who is the minor advisor. The minor in linguistics will normally include

Code	Title	Credits
LINGUIS/ ANTHRO 301	Introduction to Linguistics: Descriptive and Theoretical	3
LINGUIS 303	Language, History, and Society	3
LINGUIS 310	Phonology	3

LINGUIS 330 Syntax 3

A doctoral minor program must be approved by the minor advisor before it commences.

PEOPLE

Faculty: Professors Li, Macaulay, Macken, Raimy (Chair), Salmons, Valentine; Lecturer Shields

LINGUISTICS, M.A.

The M.A. in linguistics is a non-admitting degree. The Department of Language Sciences admits students for the Ph.D. degree in linguistics (p. 900), and awards a master of arts degree to students in a UW–Madison Ph.D. program upon the completion of the M.A. requirements. See the Linguistics Ph.D. program entry for details on admission to the Ph.D. program.

ADMISSIONS

This master's program is offered for work leading to the Ph.D. Students may not apply directly for the master's, and should instead see the admissions information for the Ph.D. (p. 900).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

The department currently supports teaching assistantships for LINGUIS 101 Human Language, usually awarded to graduate students after their first year of study. Project assistantships are often available from both inside and outside the department. Advanced Opportunity Fellowships are possible for targeted students who are U.S. citizens or permanent residents. A small number of fellowships are available and are administered through the Graduate School. TA appointments in other departments, for instance in language departments or in the English as a second language program, are sometimes possible based on a student's skill set, since being a student in those departments is not a condition of employment.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement All linguistics courses must be completed in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>). This will be a total of at least 24 credits out of 30.

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements Students must maintain a GPA of 3.67 in substantive courses taken in the Department of Language Sciences after the third semester. Student must complete the required courses with a GPA of 3.25 to earn the M.A. degree.

Assessments and Examinations Submit and defend one prelim paper by the end of the fourth semester. Contact the program for further details.

Language Requirements Knowledge of two languages is required. One must be English. The language requirements can be satisfied in multiple ways and the program should be contacted directly for further details.

REQUIRED COURSES

All required courses are to be chosen from courses offered by the Department of Language Sciences (<http://guide.wisc.edu/courses/linguis>).

- four 300-level courses
- two 500-level courses
- LINGUIS 800 Research Methods and Materials
- one additional course at the 500 level or higher (except 800)
- two additional approved courses

Contact the department for a list of specific courses.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<http://vanhise.lss.wisc.edu/ling/?q=node/15>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 9 credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree or earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

With program approval, students are allowed to count no more than 9 credits of coursework numbered 300 or above taken as a UW–Madison Special student. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

Probation is a warning to a student who is not making satisfactory progress in the graduate program of the linguistics department. Departmental probation for grades or failure to make satisfactory progress lasts for one academic year (two consecutive semesters), while probation for an unsatisfactory prelim paper or unfinished Incompletes lasts for one semester.

If a student on probation clears up the problem that led to probation within the time period allotted, nothing else happens, and the student can continue with the program.

If the student does not resolve the problem (e.g. raise the GPA or successfully complete a prelim), the student is dropped from the program at the end of the probationary period.

ADVISOR / COMMITTEE

Every graduate student must have an official faculty advisor. New students are usually assigned to the chair by default, unless they come with the intention of working with a particular faculty member. By the end of the first year, students must decide whom they would like to work with, and must ask that person if they are willing to serve as advisor. If the faculty member agrees, the student is responsible for having the faculty member sign the blue advisor agreement form, and for making sure that it is placed in the student's file. All permanent faculty members in the department (including affiliated faculty but excluding visiting faculty) may serve as advisors. Faculty from other departments may not serve as official advisors, even though they may co-chair committees.

Every faculty member has the right to refuse to become a student's advisor. Every graduate student has the right to choose any faculty member as advisor, so long as the faculty member agrees. Students should also feel free to change advisors at any time, without fear of offending a faculty member. If a student changes advisors, a new advisor agreement form must be signed and filed, and the previous advisor must be notified by the student in writing.

The advisor guides the student in the choice of appropriate courses, in the planning of prelims and the dissertation, in choosing prelim committees and the dissertation committee, and in other professional matters. Students are reminded, however, that the fulfillment of departmental requirements is ultimately the student's responsibility.

Each semester, the student must consult in person with the advisor about courses for the following semester. Registration is blocked until this is done, and is only unblocked when the student turns in the relevant form to the department, signed by the advisor.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

The prelim paper must be completed by the end of the fourth semester.

OTHER

The department does not usually have guaranteed financial aid packages to offer prospective graduate students. Most students find support of some type, usually as a TA or PA in our department or some other program. Fulltime enrollment is assumed in order to satisfy requirements on satisfactory progress as defined in the graduate student handbook.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Articulates, critiques, or elaborates the theories, research methods, and approaches to inquiry or schools of practice in the field of linguistics.
2. Identifies sources of data and assembles evidence pertaining to questions or challenges in the field of linguistics.
3. Demonstrates understanding of linguistics in a historical, social, or global context.
4. Selects and/or utilizes the most appropriate methodologies and practices.
5. Evaluates or synthesizes information pertaining to questions or challenges in the field of linguistics.
6. Communicates clearly in ways appropriate to the field of linguistics.
7. Recognizes and applies principles of ethical and professional conduct.

PEOPLE

Faculty: Professors Li, Macaulay, Macken, Raimy (Chair), Salmons, Valentine; Lecturer Shields

LINGUISTICS, PH.D.

The Department of Language Sciences admits students for the Ph.D. degree in linguistics, and awards a master of arts degree to students in a UW–Madison Ph.D. program upon the completion of the M.A. requirements. Students admitted to the linguistics Ph.D. program must attend the department orientation and must consult with the chair in person by the beginning of classes. All students proposing to minor in linguistics must also consult with the chair, who is the minor advisor, prior to beginning the minor.

The department focuses on research in formal theories of language (encompassing cross-linguistic studies in syntax, phonology, and morphology) and American Indian languages. Other specializations, including historical-comparative linguistics or articulatory and experimental phonetics, may be created by means of interdepartmental study. Students consult with their graduate advisors in establishing their areas of specialization and in working out a coherent program. Applied linguistic studies such as the theory and practice of language teaching or the history and structure of a particular language or language family are handled in other departments, or may be assembled as a program of individual study.

The department maintains a phonetics laboratory for teaching and research in experimental and acoustic phonetics, and also maintains a

specialized library collection in the Graduate Reading Room, 1151 Van Hise Hall.

ADMISSIONS

The department admits only students whose goal is the Ph.D. degree in linguistics. Admission to the Ph.D. program does not require an undergraduate degree in linguistics. Admission is based on the applicant's personal statement, three letters of recommendation, Graduate Record Exam (GRE) scores, TOEFL scores if applicable, and transcripts of prior academic work. The personal statement is considered carefully to ensure that the applicant's goals are compatible with the program offered by the department.

The department admits new Ph.D. students for fall term only. The deadline for receipt of all materials is December 23.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

The department currently supports teaching assistantships for LINGUIS 101 Human Language, usually awarded to graduate students after their first year of study. Project assistantships are often available from both inside and outside the department. Advanced Opportunity Fellowships are possible for targeted students who are U.S. citizens or permanent residents. A small number of fellowships are available and are administered through the Graduate School. TA appointments in other departments, for instance in language departments or in the English as a second language program, are sometimes possible based on a student's skill set, since being a student in those departments is not a condition of employment.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 54 credits

Minimum Residence Credit Requirement 32 credits

Minimum Graduate Coursework Requirement All linguistics courses must be completed in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle>). This will be a total of at least 42 credits out of 54.

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements Students must maintain a GPA of 3.67 in substantive courses taken in the Department of Language Sciences after the third semester.

Assessments and Examinations Submit and defend on two prelim papers. One by the end of the fourth semester and the other by the end of the eighth semester. Contact the program for further details.

Language Requirements Knowledge of three languages is required. One must be English. The second must be a non-Indo-European language or a modern Indic language. The third is determined in consultation with the advisor according to the student's research goals. Students must complete their language requirements before their second prelim exam. The language requirements can be satisfied in multiple ways and the program should be contacted directly for further details.

Doctoral Minor/Breadth Requirements A 12-credit minor that is approved by the student's advisor is required.

REQUIRED COURSES

Code	Title	Credits
LINGUIS 310	Phonology	3
LINGUIS 322	Morphology	3
LINGUIS 330	Syntax	3
LINGUIS 340	Semantics	3
LINGUIS 510	Phonological Theories	3
LINGUIS 522	Advanced Morphology	3
LINGUIS 530	Syntactic Theories	3
LINGUIS 800	Research Methods and Materials	3

Seminars

Take 3 seminars (must be 3 credits each) from the following (may repeat the same course number for credit):

LINGUIS 977	Seminar	
LINGUIS 978	Seminar	
LINGUIS 979	Seminar	

Total Credits 33

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<http://vanhise.lss.wisc.edu/ling/?q=node/15>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 9 credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree or earned ten years or more prior to

admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

With program approval, students are allowed to count no more than 9 credits of coursework numbered 300 or above taken as a UW–Madison Special student. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

PROBATION

Probation is a warning to a student who is not making satisfactory progress in the graduate program of the linguistics department. Departmental probation for grades or failure to make satisfactory progress lasts for one academic year (two consecutive semesters), while probation for an unsatisfactory prelim paper or unfinished Incompletes lasts for one semester.

If a student on probation clears up the problem that led to probation within the time period allotted, nothing else happens, and the student can continue with the program.

If the student does not resolve the problem (e.g., raise the GPA or successfully complete a prelim), the student is dropped from the program at the end of the probationary period.

ADVISOR / COMMITTEE

Every graduate student must have an official faculty advisor. New students are usually assigned to the chair by default, unless they come with the intention of working with a particular faculty member. By the end of the first year, students must decide whom they would like to work with, and must ask that person if they are willing to serve as advisor. If the faculty member agrees, the student is responsible for having the faculty member sign the blue advisor agreement form, and for making sure that it is placed in the student's file. All permanent faculty members in the department (including affiliated faculty but excluding visiting faculty) may serve as advisors. Faculty from other departments may not serve as official advisors, even though they may co-chair committees.

Every faculty member has the right to refuse to become a student's advisor. Every graduate student has the right to choose any faculty member as advisor, so long as the faculty member agrees. Students should also feel free to change advisors at any time, without fear of offending a faculty member. If a student changes advisors, a new advisor agreement form must be signed and filed, and the previous advisor must be notified by the student in writing.

The advisor guides the student in the choice of appropriate courses, in the planning of prelims and the dissertation, in choosing prelim committees and the dissertation committee, and in other professional matters. Students are reminded, however, that the fulfillment of departmental requirements is ultimately the student's responsibility.

Each semester, the student must consult in person with the advisor about courses for the following semester. Registration is blocked until this is done, and is only unblocked when the student turns in the relevant form to the department, signed by the advisor.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

The first prelim paper must be completed by the fourth semester, the second prelim paper must be completed by the eighth semester, all language and course requirements must be completed by the end of the semester in which the second prelim paper is defended, and a dissertation proposal must be submitted and defended within two weeks of the defense of the second prelim paper.

OTHER

The department does not usually have guaranteed financial aid packages to offer prospective graduate students. Most students find support of some type, usually as a TA or PA in our department or some other program. Full-time enrollment is assumed in order to satisfy requirements on satisfactory progress as defined in the graduate student handbook.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Articulates research problems, potentials, and limits with respect to theory, knowledge, or practice within the field of linguistics.
2. Formulates ideas, concepts, designs, and/or techniques beyond the current boundaries of knowledge within linguistics.
3. Creates research that makes a substantive contribution to the understanding of human language.
4. Demonstrates breadth within their learning experiences.
5. Advances contributions of the field of linguistics to society.
6. Communicates complex ideas in a clear and understandable manner.
7. Fosters ethical and professional conduct.

PEOPLE

Faculty: Professors Li, Macaulay, Macken, Raimy (Chair), Salmons, Valentine; Lecturer Shields

LAW - SCHOOL-WIDE

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Consumer Health Advocacy, Graduate/Professional Certificate (p. 903)

- Law, Doctoral Minor (p. 904)

CONSUMER HEALTH ADVOCACY, GRADUATE/PROFESSIONAL CERTIFICATE

The Consumer Health Advocacy certificate program at the Center for Patient Partnerships educates a diversity of learners interested in health advocacy. Students around the country come to this interdisciplinary health advocacy center to learn critical health advocacy skills while helping patients navigate the complex health care system.

The Center for Patient Partnerships is a national resource for strengthening the consumer perspective in health care. We have graduate students from Law, Medicine, Pharmacy, Physician Assistant, Physical Therapy, Public Health, Social Work, Gender Studies, Engineering, and others participating in our certificate program.

Additional opportunities are available in patient experience research and organizational and legislative policy advocacy through student-led “case to cause” projects.

Click on the Requirements tab on the right side navigation bar for general program requirements.

***The certificate requirements differ based on your discipline.** Please email learning@patientpartnerships.org to talk to an advisor.

Field Placements, Clerkships, Fellowships, and Individual Courses – you can see detailed descriptions in the document UW Student opportunities here (<http://www.patientpartnerships.org/wp-content/uploads/2017/02/UW-Student-opportunities.pdf>). Please contact learning@patientpartnerships.org or call 608 263 7736 for an advising session to get started.

ADMISSIONS

All currently enrolled graduate students at UW–Madison are eligible to pursue this certificate program. We do not require any health care knowledge/background.

Please email learning@patientpartnerships.org or call 608-263-7736 to schedule an advising session to get started.

REQUIREMENTS

Code	Title	Credits
Required Courses		
LAW/MED SC-M/ NURSING 768	Consumer Health Advocacy and Patient-Centered Care Clinical (Topic: Applied Advocacy Experience Introduction)	1-7
LAW/MED SC-M/ NURSING 768	Consumer Health Advocacy and Patient-Centered Care Clinical (Topic: Applied Advocacy Experience Advanced)	1-7

LAW 940	Law and Contemporary Problems (Topic: Models of System Level Advocacy)	2-3
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Electives

Choose one from one of the topics below:

*Law, Regulation and Ethics*¹

LAW 744	Administrative Law	3
LAW 905	Bioethics and the Law	2-4
LAW 906	Law, Science and Biotechnology Seminar	2-4
LAW 935	Health Law and Administration Seminar	2-3

LAW 940	Law and Contemporary Problems (Topic: Food & Drug Law)	2-3
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LAW 940	Law and Contemporary Problems (Topic: ERISA)	2-3
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LAW 940	Law and Contemporary Problems (Topic: Health Care Fraud and Abuse)	2-3
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LAW 940	Law and Contemporary Problems (Topic: Public Health Law)	2-3
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LAW 940	Law and Contemporary Problems (Topic: Mental Health Law)	2-3
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MED HIST 559	Topics in Ethics and History of Medicine	3
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MED HIST 545	Ethical and Regulatory Issues in Clinical Investigation	1
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PHILOS/ MED HIST 558	Ethical Issues in Health Care	3
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*Health Economics*²

POP HLTH 650	Special Topics (Topic: Advanced Seminar in Health & Mental Health Economics)	1-6
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PUB AFFR/ECON/ POP HLTH 548	The Economics of Health Care	3-4
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ECON/ POP HLTH 848	Health Economics	1-3
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PUB AFFR 864	Health Policy and Policy Design	3
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*Policy, Management and Public Health*³

NURSING 703	Health Care and Public Policy in the US	3
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NURSING 761	Health Program Planning, Evaluation, and Quality Improvement	3
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POP HLTH/ ENVIR ST 471	Introduction to Environmental Health	3
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POP HLTH 650	Special Topics (Topic: Health Care Management and Policy)	1-6
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POP HLTH/ I SY E 703	Quality of Health Care: Evaluation and Assurance	1-3
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POP HLTH 780	Public Health: Principles and Practice	3
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SOC WORK 875	Health, Aging, and Disability Policy and Services	2
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- ¹ Courses in this elective area address fundamental substantive knowledge and critical thinking relevant to complex legal, regulatory, or ethical matters health advocates will face.
- ² Courses in this elective area address fundamental substantive knowledge and critical thinking regarding health care financing and economics.
Students who choose this elective are required to discuss their course selection with a Certificate Advisor and the chosen course faculty; standard pre-requisites apply.
- ³ Courses in this elective area address fundamental substantive knowledge and critical thinking regarding health policy, management, or public health issues.

LEARNING OUTCOMES

1. Develop advocacy capacity that emphasizes patient empowerment.
2. Develop critical health advocacy competencies including communication, collaborative decision making, cultural humility, and ethics.
3. Experience the discipline of advocacy from a case-based perspective, and explore how various key advocacy roles can be useful in specific situations.
4. Gain familiarity with the U. S. health care delivery system and the systemic problems that give rise to the need for advocacy at the individual organizational and policy levels.

LAW, DOCTORAL MINOR

Coursework in the Law School may be offered as a minor toward the doctoral degree. Only enrolled non-dissertator Ph.D. students can pursue a doctoral minor in Law. There is no process for applying for a law minor; the minor is not officially recorded on the student's transcript until the minor is completed and the doctoral degree is conferred.

See Courses & Schedules (<http://www.law.wisc.edu/academics/courses>) for information on Law School courses.

ADMISSIONS

There is no process for applying for a law minor; the minor is not officially recorded on the student's transcript until the minor is completed and the doctoral degree is conferred.

To enroll in Law classes, review the Law School Course Schedule (<http://law.wisc.edu/academics/courses>) and select the desired course(s). Contact the instructor directly explaining the interest in the class and then forward the instructor's permission to registrar@law.wisc.edu. Authorization will be entered for enrollment in the course and the student will be notified when s/he is able to enroll.

When 10 law credits for the law minor are complete, contact the Law Registrar at registrar@law.wisc.edu or 608-262-0050. The Law Registrar will verify your courses, credits, and grades, and sign off on the minor.

REQUIREMENTS

For a minor in law, doctoral candidates must complete 10 credits. The minimum grade requirement is a weighted average of B (on the university, not Law School, grade scale).

Only enrolled non-dissertator Ph.D. students can pursue a doctoral minor in Law. There is no process for applying for a law minor; the minor is not officially recorded on the student's transcript until the minor is completed and the doctoral degree is conferred.

See Courses & Schedules (<http://www.law.wisc.edu/academics/courses>) for information on Law School courses. To enroll in Law classes, select the desired course(s) and contact the instructor directly explaining the interest in the class. Then forward the instructor's permission to registrar@law.wisc.edu. Authorization will be entered for enrollment in the course.

When 10 law credits for the law minor are complete, contact the Law Registrar at registrar@law.wisc.edu or 608-262-0050. The Law Registrar will verify your courses, credits and grades and sign off on the minor.

PEOPLE

See the Law Faculty Directory (<http://law.wisc.edu/about/contact.php?iShowFac=y>).

LIFE SCIENCES COMMUNICATION

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Life Sciences Communication, Doctoral Minor (p. 904)
- Life Sciences Communication, M.S. (p. 905)

PEOPLE

Faculty: Professors Brossard (chair), Meiller, Reaves, Scheufele; Associate Professors Shaw (director of graduate studies), Shepard; Assistant Professor Stenhouse.

LIFE SCIENCES COMMUNICATION, DOCTORAL MINOR

The doctoral minor in Life Sciences Communication allows students enrolled in doctoral programs from the biological and physical sciences, as well as interested students from other social science and humanities departments, to supplement their existing doctoral coursework with a transcriptable minor in Life Sciences Communication.

A doctoral minor in Life Sciences Communication is particularly valuable for graduate students in the natural and physical sciences who are interested in the ethical, legal, and social implications of emerging technologies, or who want to build an intellectual foundation for a future career in policy or various mission agencies (e.g., AAAS policy

fellowships) dealing with public understanding and communication of science. Many students from these fields routinely take classes in our department, and a doctoral minor allows them to get formal recognition for their doctoral-level work in this area.

More information may be found on the department website (<http://lsc.wisc.edu/ph-d-minor-in-life-sciences-communication>).

ADMISSIONS

Students interested in pursuing the LSC doctoral minor can contact Tera Holtz (tholtz@wisc.edu) to discuss their course plans.

REQUIREMENTS

The doctoral minor in Life Sciences Communication is a course-based minor (10 credits) for students enrolled in other Ph.D. programs who would like to supplement their existing Ph.D. coursework with a minor in science communication. Courses must be at the 300 level or above and should have the graduate attribute to count toward the minimum graduate coursework (50%) rule.

Code	Title	Credits
Required Courses		
LSC 700	Colloquium in Life Sciences Communication	1
LSC 720	Introduction to Communication Theory and Research	3
or LSC 902	Public Opinion of Life Science Issues	
or LSC/ENVIR ST/ JOURN 823	Science and Environment Communication	
Approved Electives		6
LSC 350	Visualizing Science and Technology	
LSC 432	Social Media for the Life Sciences	
LSC 430	Communicating Science with Narrative	
LSC 440	Contemporary Communication Technologies and Their Social Effects	
LSC 532	Web Design for the Sciences	
LSC 560	Scientific Writing	
LSC/COM ARTS/ JOURN 617	Health Communication in the Information Age	
LSC 625	Risk Communication	
LSC 660	Data Analysis in Communications Research	
LSC/JOURN 811	Conceptualization and Design of Mass Communication Research	
LSC/ENVIR ST/ JOURN 823	Science and Environment Communication	
LSC 875	Special Topics (Topic: Qualitative Research Methods in Science Communication)	
LSC 875	Special Topics (Topic: Quantitative Research Methods in Science Communication)	

LSC 875	Special Topics (Topic: Science and Social Media)
LSC 902	Public Opinion of Life Science Issues

Total Credits 10

PEOPLE

Faculty: Professors Brossard (chair), Meiller, Reaves, Scheufele; Associate Professors Shaw (director of graduate studies), Shepard; Assistant Professor Stenhouse.

LIFE SCIENCES COMMUNICATION, M.S.

The department offers a master's degree in Life Sciences Communication, with available research/thesis or available professional course-based tracks.

The thesis track requires 30 credits. Study programs match the interests and needs of individual students. However, all students must take a communication theory course, a research methodology course, a graduate level statistics course, and LSC 700 Colloquium in Life Sciences Communication. The program requires a thesis based on original research.

The professional track is a course-based program (30 credits total) that is designed to prepare students for professional careers in life sciences communication and related fields. Students in this track will not usually pursue a Ph.D. program in the future. In fact, many graduate programs (including Life Sciences Communication) do not accept a non-thesis master's as a criterion for admission to their Ph.D. program.

Teaching and research in the department focus on science communication in the areas of emerging technologies, bioenergy, environment, agriculture, health, and food.

The M.S. in Life Sciences Communication graduate program provides advanced professional training in communication and preparation for communication research and teaching. Students in the professional track M.S. program are studying for careers in a variety of fields, including consulting, policy, journalism, strategic communication, marketing and market research, particularly in science-related fields.

For more information on the types of research our faculty and students are doing, where our M.S. alumni are now, and additional details about the program, please visit the Life Sciences Communication website (<http://lsc.wisc.edu>).

ADMISSIONS

Admissions deadlines:

For spring admission: October 15

For fall admission: May 15

In order to be eligible for various fellowships and teaching assistantships, early application is recommended.

Students must meet the minimum requirements for admission (<https://grad.wisc.edu/admissions/requirements>) set by the Graduate School.

Applicants must submit:

- An online application
- Official GRE scores
- A statement of purpose
- Official transcripts from all previously attended institutions
- A CV/resume
- Three letters of recommendation. Letters of recommendation should come from people who can speak to the scholarly abilities of the applicant.
- International applicants are required to take and attain a satisfactory score on the Test of English as a Foreign Language (TOEFL), or the International English Language Testing System (IELTS) exam.

A Life Sciences Communication graduate program application checklist is available for applicants on the program website (<http://lsc.wisc.edu/masters>).

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Financial support is available for graduate students in LSC. Historically, nearly all of our graduate students have been funded through assistantships — either in our department, working under the direction of one of our faculty members, or in one of numerous other departments and programs that regularly look to LSC to provide them with students with strong communication skills.

Assistantships

Most graduate students who receive support serve as teaching, research, or project assistants. Assistantships are typically part-time positions that pay a monthly stipend. Additionally, positions that are 33.33% or more (based on a 40-hour work week) provide tuition remission for the student and make the student eligible for comprehensive health insurance coverage (a benefit worth approximately \$4,200 annually).

Fellowships

The department nominates its most competitive grad applicants for fellowship awards. University Fellowships are awarded through the Graduate School. The Social Science division offers a Two-Year Recruitment Fellowship, which provides a stipend, tuition remission, fees, and eligibility for health insurance. The fellowship is awarded during the student's first year in the program and during the student's first year as a dissertator.

The department also nominates competitive graduate applicants for the Advanced Opportunity Fellowships (AOFs) (<http://www.cals.wisc.edu/gradstudies/scholarships>), which provide full tuition and funding to qualified minority applicants.

The department also nominates current students for Wisconsin Distinguished Graduate Fellowships (WDGF) (<http://uwmadisonoffr.wordpress.com/funding-overview/fellowships/wisconsin-distinguished-graduate-fellowships>), which are awarded by the College of Agricultural and Life Sciences.

Financial Aid

Students who are U.S. citizens or Permanent Residents can apply for Federal Stafford Loans (subsidized and unsubsidized) and for Federal Work-Study through the Office of Student Financial Aid (OSFA (<https://financialaid.wisc.edu>)). Eligibility is based on financial need. OSFA also offers information on the cost of attendance.

Short-term loans (<http://finaid.wisc.edu/159.htm>) are available on a limited basis. They are given only to assist in unanticipated emergency situations and must be repaid within the semester in which they are borrowed.

Hourly Employment

Other employment opportunities are available both on campus and in the community. Openings for full- and part-time jobs for students and spouses are listed on the Student Job Center website (<http://jobcenter.wisc.edu>).

Travel and Professional Development Grants

Every student is encouraged to apply for the Graduate School's Student Research Grants Competition (<https://grad.wisc.edu/diversity/summer-research-opportunity-program>) (formerly known as the Vilas Travel Grants) each year. These grants are intended to support both Conference Presentation Funds and Research Travel Awards. It is critical that students plan to apply early and follow campus travel policies for transportation and travel.

Also, graduate students in LSC can apply for financial support from the department for travel to academic conferences. Students can apply for up to \$1,000 for international travel and up to \$500 for domestic travel. In order to be eligible for these awards, students need to fulfill all of the criteria. For more information and a list of the criteria see this guide (<https://lsc.wisc.edu/wp-content/uploads/sites/185/2015/08/LSC-Grad-Student-Prof-Dev-Fund-8.2.15.pdf>).

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 30 credits

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.50 GPA required.

Other Grade Requirements Students must earn a B or above in all coursework to count it toward the 30-credit total.

Assessments and Examinations The research/thesis track requires a formal thesis and oral defense; the non-thesis track requires a comprehensive report or course narrative, and presentation at the culmination of coursework.

Language Requirements No language requirements.

REQUIRED COURSES

The M.S. has two tracks students can follow: a Thesis Master's Degree or a Professional M.S.

Thesis Track ¹

The Thesis Master's degree requires 24 course credits plus a thesis (6 credits). Courses taken match the interests and needs of individual students. However, all students must take LSC 720 Introduction to Communication Theory and Research, a research methodology course, a graduate level statistics course, and LSC 700 Colloquium in Life Sciences Communication. The degree also requires a thesis based on original research.

The student meets with their advisor during the first semester of the program to outline a course trajectory for the next two years. In consultation with their advisor, the student assembles a committee of three faculty members. The student defends their master's thesis in front of the committee at the end of their program.

Course work can include classes in substantive areas other than communication. For example, a student wishing to become an environmental reporter might take courses in environmental studies. A student interested in health communication might take a nutrition or preventive medicine course. However, the complete program must have coherence and focus, and students should discuss all courses with their advisor prior to enrollment.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Professional Track ¹

The Professional Studies M.S. is a course-based master's degree (30 credits total) designed to prepare students for professional careers in life sciences communication and related fields. Students in this track will usually not pursue a Ph.D. program in the future. In fact, many graduate programs (including LSC) do not accept a non-thesis master's as a criterion for admission to their Ph.D. program.

The student meets with their advisor during the first semester of the program to outline a course trajectory for the next two years. In consultation with their advisor, the student assembles a committee of three faculty members. The student present a course narrative to the committee and the end of their program, and the committee meets to approve the completed coursework.

Professional track master's students must take LSC 720 Introduction to Communication Theory and Research, a research methodology course, a graduate level statistics course, and LSC 700 Colloquium in Life Sciences Communication. Students fill their remaining credits with courses of interest after consulting with their advisor.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

POLICIES

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<http://lsc.wisc.edu/resources-2>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

In consultation with the student's advisor and with program approval, students are allowed to count no more than 6 credits of graduate coursework from other institutions. Coursework earned ten or more years prior to admission to a master's is not allowed to satisfy requirements.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

With program approval and payment of the difference in tuition (between Special and graduate tuition), students are allowed to count no more than 12 credits of coursework numbered 600 or above taken as a UW–Madison Special student. Coursework earned ten or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

Students must be in good standing in accordance with the Graduate School Policies and Procedures in order to earn and retain an assistantship within the department. Students who fall out of good standing must meet with the director of graduate studies.

ADVISOR / COMMITTEE

All students are required to meet with their advisor a minimum of once per semester.

CREDITS PER TERM ALLOWED

15 credits (however, 12 credits are highly encouraged)

TIME CONSTRAINTS

Students who pursue the thesis-track master's degree will have a limit of four semesters (including summer semesters) of LSC 990 Research/thesis enrollment. The four-semester limit starts with the first semester a student takes LSC 990 Research credits, whether or not in conjunction with other courses. Students will not be allowed to take leave once their LSC 990 Research enrollment commences. Students who do not produce and defend a thesis at the end of the four semesters will be issued a professional-track thesis.

If a student in good standing encounters extenuating circumstances and wishes to interrupt their program of graduate study, the student can take a leave of absence but must notify the LSC graduate committee in writing prior to the start of the semester they wish to take leave, and specify the reason and anticipated length of the leave. If the student wishes to extend the leave, the student must again notify the LSC graduate committee in writing to the director of graduate studies and the student services coordinator. The leave of absence guarantees re-entry to the program if the student applies to the Graduate School for readmission within the time period specified. Students whose requests are denied may later apply for readmission, but their acceptance cannot be guaranteed.

OTHER

Teaching (TA), research (RA), and project assistantships (PA) are available. All TA position announcements are distributed to current students, and students with active applications to LSC programs,

and are posted on the UW–Madison Student Job Center. RA and PA positions vary and are managed individually by the faculty.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Articulate research problems, potentials, and limits with respect to theory, knowledge, and practice within the field of study. Demonstrating knowledge of the theories, concepts, frameworks, empirical findings, and controversies in the field.
2. Identifies sources and assembles evidence pertaining to questions or challenges in the field of study.
3. Demonstrates understanding of the primary field of study in a historical, social, or global context.
4. Selects and/or utilizes the most appropriate methodologies, tools, and practices.
5. Evaluates or synthesizes information pertaining to questions or challenges in the field of study.
6. Communicates complex ideas effectively across different audiences.
7. Recognizes, fosters, and applies principles of ethical and professional conduct.

PEOPLE

Faculty: Professors Brossard (chair), Meiller, Reaves, Scheufele; Associate Professors Shaw (director of graduate studies), Shepard; Assistant Professor Stenhouse.

MANAGEMENT AND HUMAN RESOURCES

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Business: Arts Administration, M.A. (p. 909)
- Business: Arts Administration, MBA (p. 911)
- Business: Management and Human Resources, M.S. (p. 913)
- Business: Management and Human Resources, MBA (p. 915)
- Entrepreneurship, Graduate/Professional Certificate (p. 919)
- Strategic Innovation: Technology, Organizations, and Society, Graduate/Professional Certificate (p. 920)

PEOPLE

Faculty: Professors Trevor (chair), Aldag, Coff, Dunham, Gerhart; Associate Professors Eckhardt, Ganco, Posen, Stajkovic, Terlaak, Triana; Assistant Professors Kim, Navis, Sarada, Shin

BUSINESS: ARTS ADMINISTRATION, M.A.

Founded in 1900, the School of Business established one of the first five business programs in the nation. That entrepreneurial spirit remains strong.

As a student in the School of Business, you will find yourself inspired by peers, staff, alumni, business leaders, and world-renowned faculty who are focused, collaborative, and engaged in every aspect of the student experience. You will join a highly ranked program that equips you to meet both academic and career challenges. Employers value School of Business graduates because of the comprehensive preparation this learning environment provides. Graduates possess highly sought-after general management and specialized expertise in business.

Joining collaborative, inspiring, trustworthy, and progressive WSB alumni, Business Badgers graduate prepared to lead their organizations to success and transform the world of business. Together Forward!

ADMISSIONS

This master's program is offered for work leading to the Ph.D. Students may not apply directly for the master's, and should instead see the admissions information for the Ph.D. (p. 212)

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Contact the program for information on required assessments and examinations.

Language Requirements Contact the program for information on any language requirements.

REQUIRED COURSES

This master's degree is earned by students on the way to earning the Ph.D. in Business. Refer to the curricular requirements for specific tracks within the Business Ph.D. (p. 213) for required courses.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 9 credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

With program approval and payment of the difference in tuition (between special and graduate tuition), students are allowed to count no more than 9 credits of coursework numbered 700 or above taken as a UW–Madison University Special student. Coursework earned five or more years prior to the master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Students must be enrolled full-time.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Apply foundational knowledge in arts and core business topics to arts and/or nonprofit contexts that include evidence-based analysis, cultural sensitivity, artistic integrity, and appreciation for the research foundations of their work.
2. Create, communicate, and execute a strategic plan with mission-based outcomes that relies on research-based evidence, a historical context to forecast future trends, and stakeholder engagement.
3. Adaptively develop and manage the necessary resources in a mission-based organizational context to create sustainable systems that meet the needs of diverse stakeholders and honors the culture of the communities served.
4. Successfully articulate their ideas to a diverse set of constituents and stakeholders via multiple methods so as to be informative, persuasive and inspiring.
5. Make significant contributions to the thought leadership, and industry insight that strengthens and provides service to the field, lifelong learning, and career development.
6. Develop self-awareness and leadership skills necessary to: a. utilize creativity and art to articulate a clear vision; b. engage/inspire a diverse group of colleagues; c. evaluate the immediate and long-term ethical impacts of one's actions on stakeholders; d. and influence and promote progress in a variety of professional roles and contexts.
7. Engage and sustain a strong cross-functional network of professionals.

ACCREDITATION

Accreditation

AACSB International—The Association to Advance Collegiate Schools of Business (<http://www.aacsb.edu>)

Accreditation status: Accredited. Next accreditation review: 2021-2022.

BUSINESS: ARTS ADMINISTRATION, MBA

Founded in 1900, the School of Business established one of the first five business programs in the nation. That entrepreneurial spirit remains strong.

As a student in the School of Business, you will find yourself inspired by peers, staff, alumni, business leaders, and world-renowned faculty who are focused, collaborative, and engaged in every aspect of the student experience. You will join a highly ranked program that equips you to meet both academic and career challenges. Employers value School of Business graduates because of the comprehensive preparation this learning environment provides. Graduates possess highly sought-after general management and specialized expertise in business.

Joining collaborative, inspiring, trustworthy, and progressive WSB alumni, Business Badgers graduate prepared to lead their organizations to success and transform the world of business. Together Forward!

For more than four decades, the School of Business arts administration major has been the graduate degree program of choice for high-potential arts and cultural managers seeking intensive training in business, an immersion in strategic and innovative thinking, and a broad and dynamic knowledge of nonprofit cultural management. The degree has delivered on that promise through its world-class business curriculum, continual interaction with leading practitioners, and hands-on work experiences for every student. See the program website (<https://wsb.wisc.edu/programs-degrees/mba/full-time>) for more information.

ADMISSIONS

Admission consideration for the MBA program requires a four-year undergraduate degree or the equivalent, in any discipline, from an accredited institution. The School of Business seeks a minimum of two years of full-time work experience along with a strong undergraduate performance. In addition to academic credentials, GMAT scores, and work experience, personal achievements, motivation, communication skills (written and oral), international exposure, and recommendation letters are considered in the admission process at both the master's and doctoral levels.

Note: The Graduate Management Admission Test (GMAT), taken within five years of the starting term, is required of all applicants to the School of Business; the Graduate Record Exam (GRE) may be an acceptable alternative on a case-by-case basis. All applicants whose native language is not English must submit scores from the Test of English as a Foreign Language (TOEFL), the Pearson Test of English (PTE), Intensive English as a Second Language (IELTS) or show the completion of an Interlink program. A minimum iBT TOEFL score of 100 or equivalent, obtained within two years of the intended start term, is required. International applicants who have completed a degree at an institution whose primary language of instruction was English may request a waiver of this requirement on the application.

HOW TO APPLY

Students interested in Business degrees do not apply through the Graduate School application system and should instead refer to the School of Business Admissions page. (<https://wsb.wisc.edu/programs-degrees/mba/full-time/admissions>)

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Learn about costs and financial assistance on the program website (<https://wsb.wisc.edu/programs-degrees/mba/full-time/admissions/tuition-costs-financial-aid-scholarships>).

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Contact the program for information on required assessments and examinations.

Language Requirements Contact the program for information on any language requirements.

REQUIRED COURSES

Code	Title	Credits
Year One		
<i>Fall Semester</i>		
GEN BUS 704	Data to Decisions	3
ACCT I S 700	Financial Accounting	3
FINANCE 700	Introduction to Financial Management	3
M H R 706	Leading and Working in Teams	1
MARKETNG 700	Marketing Management	3
M H R 773	Seminar-Arts Administration	3
<i>Spring Semester</i>		
M H R 723	Business Strategy	3
OTM 700	Operations Management	3
OTM 732	Economics for Managers	3
M H R 774	Seminar-Arts Administration	3
M H R 799	Reading and Research-Management	1
Year Two		
<i>Fall Semester</i>		
GEN BUS 710	Ethics, Integrity and Society	1
M H R 765	Contemporary Topics (Topic: Strategic Consulting Project/Capstone)	3
M H R 728	Bargaining, Negotiating and Dispute Settlement for Managers	3
M H R 765	Contemporary Topics (Topic: Nonprofit Board LEadership)	3

M H R 799	Reading and Research-Management (Applied Learning)	1
Elective/Topic Specialization		3
<i>Spring Semester</i>		
M H R 765	Contemporary Topics (Topic: Strategic Consulting Project/Capstone)	3
M H R 765	Contemporary Topics (Topic: Nonprofit Board Leadership)	3
Elective/Topic Specialization		3
Elective/Topic Specialization		3
Total Credits		55

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

No credits of prior coursework are allowed to satisfy requirements.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

No credits of prior coursework are allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, or sometimes a committee, from

the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Students must be enrolled full-time.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Apply foundational knowledge in arts and core business topics to arts and/or nonprofit contexts that include evidence-based analysis, cultural sensitivity, artistic integrity, and appreciation for the research foundations of their work.
2. Create, communicate, and execute a strategic plan with mission-based outcomes that relies on research-based evidence, a historical context to forecast future trends, and stakeholder engagement.
3. Adaptively develop and manage the necessary resources in a mission-based organizational context to create sustainable systems that meet the needs of diverse stakeholders and honors the culture of the communities served.
4. Successfully articulate their ideas to a diverse set of constituents and stakeholders via multiple methods so as to be informative, persuasive and inspiring.
5. Make significant contributions to the thought leadership, and industry insight that strengthens and provides service to the field, lifelong learning, and career development.
6. Develop self-awareness and leadership skills necessary to: a. utilize creativity and art to articulate a clear vision; b. engage/inspire a diverse group of colleagues; c. evaluate the immediate and long-term ethical impacts of one's actions on stakeholders; d. and influence and promote progress in a variety of professional roles and contexts.
7. Engage and sustain a strong cross-functional network of professionals.

ACCREDITATION

Accreditation

AACSB International—The Association to Advance Collegiate Schools of Business (<http://www.aacsb.edu>)

Accreditation status: Accredited. Next accreditation review: 2021-2022.

BUSINESS: MANAGEMENT AND HUMAN RESOURCES, M.S.

Founded in 1900, the School of Business established one of the first five business programs in the nation. That entrepreneurial spirit remains strong.

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ADMISSIONS

This master's program is offered for work leading to the Ph.D. Students may not apply directly for the master's, and should instead see the admissions information for the Ph.D. (p. 212)

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Contact the program for information on required assessments and examinations.

Language Requirements Contact the program for information on any language requirements.

REQUIRED COURSES

This master's degree is earned by students on the way to earning the Ph.D. in Business. Refer to the curricular requirements for specific tracks within the Business Ph.D. (p. 213) for required courses.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 9 credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

With program approval and payment of the difference in tuition (between special and graduate tuition), students are allowed to count no more than 9 credits of coursework numbered 700 or above taken as a UW–Madison University Special student. Coursework earned five or more years prior to the master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Students must be enrolled full-time.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Understand the connection between human resource management and overall business strategy.
2. Analyze organization compensation strategy to identify problems and develop solutions that support the organization's strategy.
3. Discern which staffing techniques are poor, fair, and good predictors of employees' future job performance.
4. Comprehend the various challenges currently facing the labor and employment relations system to be able to address these challenges.
5. Apply appropriate tactics in competitive and cooperative negotiations individually and as part of a negotiation team.
6. Design work systems and roles that allow employees to contribute to organization performance.

PEOPLE

Faculty: Professors Trevor (chair), Aldag, Coff, Gerhart; Associate Professors Eckhardt, Ganco, Posen, Stajkovic, Terlaak, Triana; Assistant Professors Honore, Sarada, Shin

BUSINESS: MANAGEMENT AND HUMAN RESOURCES, MBA

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are focused, collaborative, and engaged in every aspect of the student experience. You will join a highly ranked program that equips you to meet both academic and career challenges. Employers value School of Business graduates because of the comprehensive preparation this learning environment provides. Graduates possess highly sought-after general management and specialized expertise in business.

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NAMED OPTION IN STRATEGIC HUMAN RESOURCES MANAGEMENT

The Wisconsin program in strategic human resource management (SHRM) produces leaders who are equipped with the necessary skills to change tomorrow. The curriculum combines expertise in human resources with the knowledge required to be a strategic business partner. Many of the functional areas of HR and core competencies are covered through academic courses and program activities outside the classroom. The combination of core MBA learning, specialized courses, applied learning opportunities, and human resources internships sets the Wisconsin SHRM program apart from its competitors. See the program website (<https://wsb.wisc.edu/programs-degrees/mba/full-time/career-specializations/strategic-human-resource-management>) for more information.

ADMISSIONS

Admission consideration for the MBA Program requires a four-year undergraduate degree or the equivalent, in any discipline, from an accredited institution. The School of Business seeks a minimum of two years of full-time work experience along with a strong undergraduate performance. In addition to academic credentials, GMAT scores and work experience, personal achievements, motivation, communication skills (written and oral), international exposure and recommendation letters are considered in the admission process at both the master's and doctoral levels.

Note: The Graduate Management Admission Test (GMAT), taken within five years of the starting term, is required of all applicants to the School of Business; the Graduate Record Exam (GRE) may be an acceptable alternative on a case by case basis. All applicants whose native language is not English must submit scores from the Test of English as a Foreign Language (TOEFL), the Pearson Test of English (PTE), Intensive English as a Second Language (IELTS), or show the completion of an Interlink program. A minimum iBT TOEFL score of 100 or equivalent, obtained within two years of the intended start term, is required. International applicants who have completed a degree at an institution whose primary language of instruction was English may request a waiver of this requirement on the application.

HOW TO APPLY

Students interested in Business degrees do not apply through the Graduate School application system and should instead refer to the School of Business Admissions page. (<https://wsb.wisc.edu/programs-degrees/mba/full-time/admissions>)

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Prospective students should see the program website for funding information.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

Note: The major is currently non-admitting. Students are admitted through one of the named options (sub-majors) below (p. 916).

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Contact the program for information on required assessments and examinations.

Language Requirements Contact the program for information on any language requirements.

REQUIRED COURSES

Select a Named Option (p. 916) for courses required.

NAMED OPTIONS (SUB-MAJORS)

A named option is a formally documented sub-major within an academic major program. Named options appear on the transcript with degree conferral. Students pursuing the MBA in Business: Management and Human Resources must select one of the following named options:

- Business: Management and Human Resources: Strategic Human Resource Management, MBA (p. 917)

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

No credits of prior coursework are allowed to satisfy requirements.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

No credits of prior coursework are allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Students must be enrolled full-time.

PROFESSIONAL DEVELOPMENT**GRADUATE SCHOOL RESOURCES**

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Understand the connection between human resource management and overall business strategy.
2. Analyze organization compensation strategy to identify problems and develop solutions that support the organization's strategy.

3. Discern which staffing techniques are poor, fair, and good predictors of employees' future job performance.

4. Comprehend the various challenges currently facing the labor and employment relations system to be able to address these challenges.

5. Apply appropriate tactics in competitive and cooperative negotiations individually and as part of a negotiation team.

6. Design work systems and roles that allow employees to contribute to organization performance.

PEOPLE

Faculty: Professors Trevor (chair), Aldag, Coff, Gerhart; Associate Professors Eckhardt, Ganco, Posen, Stajkovic, Terlaak, Triana; Assistant Professors Honore, Sarada, Shin

ACCREDITATION**Accreditation**

AACSB International—The Association to Advance Collegiate Schools of Business (<http://www.aacsb.edu>)

Accreditation status: Accredited. Next accreditation review: 2021-2022.

BUSINESS: MANAGEMENT AND HUMAN RESOURCES: STRATEGIC HUMAN RESOURCE MANAGEMENT, MBA

This is a named option in the Business: Management and Human Resources MBA. (p. 915)

ADMISSIONS

Admission consideration for the MBA Program requires a four-year undergraduate degree or the equivalent, in any discipline, from an accredited institution. The School of Business seeks a minimum of two years of full-time work experience along with a strong undergraduate performance. In addition to academic credentials, GMAT scores and work experience, personal achievements, motivation, communication skills (written and oral), international exposure and recommendation letters are considered in the admission process at both the master's and doctoral levels.

Note: The Graduate Management Admission Test (GMAT), taken within five years of the starting term, is required of all applicants to the School of Business; the Graduate Record Exam (GRE) may be an acceptable alternative on a case by case basis. All applicants whose native language is not English must submit scores from the Test of English as a Foreign Language (TOEFL), the Pearson Test of English (PTE), Intensive English as a Second Language (IELTS), or show the completion of an Interlink program. A minimum iBT TOEFL score of 100 or equivalent, obtained within two years of the intended start term, is required. International applicants who have completed a degree at an institution whose primary

language of instruction was English may request a waiver of this requirement on the application.

HOW TO APPLY

Students interested in Business degrees do not apply through the Graduate School application system and should instead refer to the School of Business Admissions page. (<https://wsb.wisc.edu/programs-degrees/mba/full-time/admissions>)

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

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Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum 30 credits

Credit Requirement

Minimum 16 credits

Residence Credit Requirement

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements

The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Contact the program for information on required assessments and examinations.

Language Requirements Contact the program for information on any language requirements.

REQUIRED COURSES

Code	Title	Credits
Year One		
<i>Fall Semester</i>		
ACCT I S 700	Financial Accounting	3
FINANCE 700	Introduction to Financial Management	3
MARKETNG 700	Marketing Management	3
GEN BUS 704	Data to Decisions	3
M H R 705	Human Resource Management	3
<i>Spring Semester</i>		
GEN BUS 710	Ethics, Integrity and Society	1
OTM 700	Operations Management	3
OTM 732	Economics for Managers	3
M H R 765	Contemporary Topics (Topic: MHR HR Capstone)	3
Elective		3
Year Two		
<i>Fall Semester</i>		
M H R 723	Business Strategy	3
M H R 728	Bargaining, Negotiating and Dispute Settlement for Managers	3
M H R 611	Personnel Staffing and Evaluation	3
Electives		6
<i>Spring Semester</i>		
M H R 610	Compensation: Theory and Administration	3
M H R 612	Labor-Management Relations	3

M H R 765	Contemporary Topics (Topic: MHR HR Capstone)	3
Electives		6
Total Credits		58

Electives must be approved by advisor.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

NAMED OPTION-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

No credits of prior coursework are allowed to satisfy requirements.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

No credits of prior coursework are allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Students must be enrolled as full-time.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

ENTREPRENEURSHIP, GRADUATE/ PROFESSIONAL CERTIFICATE

The graduate/professional certificate in entrepreneurship seeks to provide entrepreneurial knowledge and skills to students who desire to launch a new organization, work more effectively in startup situations, or explore and better understand the regulatory policies that affect company formation and performance. The certificate is available to all UW–Madison graduate degree-seeking students (excluding University Special students).

A student who has completed this certificate will have good foundational skills in recognizing promising opportunities and building a new organization or venture to create social/economic value.

Students who successfully complete the requirements for the certificate and submit the required certificate declaration and certificate completion forms to the Department of Management and Human Resources office will have the certificate noted on their official university transcripts by the Office of the Registrar.

ADMISSIONS

Before beginning any coursework, we suggest you consult with your faculty advisor (or, where appropriate, graduate program coordinator).

Note: The application for declaring your certificate must be completed prior to graduation. Your application automatically serves as a declaration of your intent to pursue the certificate. This declaration will become part of your academic record.

Application information is available on the program website (<https://bus.wisc.edu/mba/current-students/certificate-programs/entrepreneurship/#application-information>).

REQUIREMENTS

The 12-credit program draws upon entrepreneurship courses in the School of Business, but students may select approved, elective courses from a variety of schools and colleges across the university that address the ability to launch and lead new ventures. Approved courses develop and deepen students' capacity to: assess opportunities, analyze the structure of markets, develop new products, perform financial analysis, understand the consequences of entity types, use intellectual property strategically in dynamic markets, form effective teams, and formulate strategies for organizational growth. Other courses help students better understand the role of entrepreneurial activity in economic growth and the achievement of societal goals.

LEARNING OUTCOMES

1. Students will understand the different career paths in entrepreneurship.
2. Students will understand what makes an effective founding team for a new venture.
3. Students will understand critical legal issues in the management of an entrepreneurial firm.
4. Students will be able to write the central components of business plans including being able to apply critical financial and management accounting issues specific to the growing venture.
5. Students will understand key opportunities for minimizing risk and maximizing reward in new ventures.

STRATEGIC INNOVATION: TECHNOLOGY, ORGANIZATIONS, AND SOCIETY, GRADUATE/ PROFESSIONAL CERTIFICATE

The graduate/professional certificate in strategic innovation seeks to provide knowledge and skills to students around the development of innovative products, services, and processes within an existing organization. The certificate is available to all UW–Madison graduate-degree-seeking students (excluding University Special students).

ADMISSIONS

Before beginning any coursework, we suggest you consult with your faculty advisor (or, where appropriate, graduate program coordinator).

Note: The application for declaring your certificate must be completed prior to graduation. Your application automatically serves as a declaration of your intent to pursue the certificate. This declaration will become part of your academic record.

Application information is available on the program website (<https://bus.wisc.edu/mba/current-students/certificate-programs/strategic-innovation/#application-information>).

REQUIREMENTS

The 12-credit program draws upon strategy and related courses in the School of Business, but students may select approved, elective courses from a variety of schools and colleges across the university that deepen students' capacity for:

- Analyzing new markets
- Managing research and product development processes in existing organizations
- Supporting organizational creativity
- Articulating innovative business models
- Identifying and appropriating the value of intellectual property
- Assessing society-level innovation systems

The certificate program offers foundational skills and knowledge appropriate for graduate students who anticipate working in dynamic organizations that depend on innovation to compete in the marketplace and/or use innovation to create value for society more broadly.

A student who has completed the certificate will be prepared to execute in-depth new product development plans for an existing organization or identify and evaluate innovation challenges in society.

Students who successfully complete the requirements for the certificate and submit the required certificate declaration and certificate completion forms to the Department of Management and Human Resources office will have the certificate noted on their official university transcripts by the Office of the Registrar.

LEARNING OUTCOMES

1. Students will be able to recognize, evaluate, select and implement business opportunities emerging from technological solutions.
2. Students will be able to manage technological and innovative processes based on the understanding of industry and market trends.
3. Students will be able to make business decisions in an emerging technology industry context.
4. Students will be able to evaluate competitive advantage (or lack thereof) stemming from technology.
5. Students will be able to develop understanding of strategies that firms use to appropriate value from technology.

MARKETING

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Business: Marketing, M.S. (p. 921)
- Business: Marketing, MBA (p. 923)

PEOPLE

Faculty: Professors Thompson (chair), Arora, Heide, Moreau, O'Guinn, Thompson; Associate Professors Epp, Hoban, Lim, Peck, Tanner; Assistant Professors Chung, Liu, Mallucci, Polman, Weiss

BUSINESS: MARKETING, M.S.

Founded in 1900, the School of Business established one of the first five business programs in the nation. That entrepreneurial spirit remains strong.

As a student in the School of Business, you will find yourself inspired by peers, staff, alumni, business leaders, and world-renowned faculty who are focused, collaborative, and engaged in every aspect of the student experience. You will join a highly ranked program that equips you to meet both academic and career challenges. Employers value School of Business graduates because of the comprehensive preparation this learning environment provides. Graduates possess highly sought-after general management and specialized expertise in business.

Joining collaborative, inspiring, trustworthy, and progressive WSB alumni, Business Badgers graduate prepared to lead their organizations to success and transform the world of business. Together Forward!

ADMISSIONS

This master's program is offered for work leading to the Ph.D. Students may not apply directly for the master's, and should instead see the admissions information for the Ph.D. (p. 212)

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Contact the program for information on required assessments and examinations.

Language Requirements Contact the program for information on any language requirements.

REQUIRED COURSES

This master's degree is earned by students on the way to earning the Ph.D. in Business. Refer to the curricular requirements for specific tracks within the Business Ph.D. (p. 213) for required courses.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 9 credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

With program approval and payment of the difference in tuition (between special and graduate tuition), students are allowed to count no more than 9 credits of coursework numbered 700 or above taken as a UW–Madison University Special student. Coursework earned five or more years prior to the Master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Students must be enrolled full time.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Clearly articulate a business recommendation based on a discovered consumer insight. (A.C. Nielsen Specialization)
2. Demonstrate a knowledge of or ability to grow business profitably through marketing research efforts. (A.C. Nielsen Specialization)
3. Articulate a business problem and translate it into a marketing research question. (A.C. Nielsen Specialization)
4. Evaluate a business problem and apply an appropriate marketing research technique to address the problem. (A.C. Nielsen Specialization)
5. Develop key elements of a brand's business plan that drive growth. (Brand Specialization)
6. Perform business analytics used to improve a brand's business results. (Brand Specialization)
7. Articulate a plan for achieving their industry professional aspirations. (A.C. Nielsen Specialization)
8. Demonstrate professional protocols for succeeding in the corporate environment. (Brand Specialization)
9. Summarize current challenges faced by the marketing research industry and know potential solutions or how the industry is approaching the challenge. (A.C. Nielsen Specialization)
10. Effectively communicate in order to drive growth for their brand's business. (Brand Specialization)
11. Understand how to lead a cross-functional brand and product team to achieve a goal or an objective. (Brand Specialization)

PEOPLE

Faculty: Professors O'Guinn (chair), Arora, Braker, Heide, Lim, Moreau, Thompson; Associate Professors Epp, Liu, Peck, Tanner; Assistant Professors Chung, Hoban, Mallucci, Polman, Weiss

BUSINESS: MARKETING, MBA

Founded in 1900, the School of Business established one of the first five business programs in the nation. That entrepreneurial spirit remains strong.

As a student in the School of Business, you will find yourself inspired by peers, staff, alumni, business leaders, and world-renowned faculty who are focused, collaborative, and engaged in every aspect of the student experience. You will join a highly ranked program that equips you to meet both academic and career challenges. Employers value School of Business graduates because of the comprehensive preparation this learning environment provides. Graduates possess highly sought-after general management and specialized expertise in business.

Joining collaborative, inspiring, trustworthy, and progressive WSB alumni, Business Badgers graduate prepared to lead their organizations to success and transform the world of business. Together Forward!

BRAND AND PRODUCT MANAGEMENT

The Center for Brand and Product Management is the nation's first university-based center focused on producing talent and knowledge in the field of brand and product management. The center was established to fill a gap—no one was training business students to be top-notch brand managers. Brand management is the one “specialty” that requires a breadth of business skills. The Center for Brand and Product Management's unique environment—and uniquely effective blend of curriculum and applied learning—builds those skills. Since its inception in 2003, the Center for Brand and Product Management has had 100 percent internship placement and strong full-time placement at some of the best consumer-packaged-goods companies around the country. Students leave with a network, a community, and a portfolio of applied learning experiences. See the program website (<https://wsb.wisc.edu/programs-degrees/mba/full-time/career-specializations/brand-product-management>) for more information.

MARKETING RESEARCH

There is no better foundation for marketing action than marketing research. The A.C. Nielsen Center for Marketing Research offers the premier full-time MBA program with a specialization in marketing research. The center was established in 1990 and is built on the legacy and funding of the Arthur C. Nielsen Jr. family, pioneers in the field of marketing research. It was created to train MBA students in the specialized ideas, issues, and techniques of marketing research, as well as to help discover and disseminate new marketing research knowledge. See the program website (<https://wsb.wisc.edu/programs-degrees/mba/full-time/career-specializations/marketing-research>) for more information.

ADMISSIONS

Admission consideration for the MBA Program requires a four-year undergraduate degree or the equivalent, in any discipline, from an accredited institution. The School of Business seeks a minimum of two years of full-time work experience along with a strong undergraduate performance. In addition to academic credentials, GMAT scores and work experience, personal achievements, motivation, communication skills (written and oral), international exposure and recommendation letters are

considered in the admission process at both the master's and doctoral levels.

Note: The Graduate Management Admission Test (GMAT), taken within five years of the starting term, is required of all applicants to the School of Business; the Graduate Record Exam (GRE) may be an acceptable alternative on a case by case basis. All applicants whose native language is not English must submit scores from the Test of English as a Foreign Language (TOEFL), the Pearson Test of English (PTE), Intensive English as a Second Language (IELTS), or show the completion of an Interlink program. A minimum iBT TOEFL score of 100 or equivalent, obtained within two years of the intended start term, is required. International applicants who have completed a degree at an institution whose primary language of instruction was English may request a waiver of this requirement on the application.

HOW TO APPLY

Students interested in Business degrees do not apply through the Graduate School application system and should instead refer to the School of Business Admissions page. (<https://wsb.wisc.edu/programs-degrees/mba/full-time/admissions>)

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Prospective students should see the program website for funding information.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

Note: The major is currently non-admitting. Students are admitted through one of the named options (sub-majors) below (p. 924).

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Contact the program for information on required assessments and examinations.

Language Requirements Contact the program for information on any language requirements.

REQUIRED COURSES

Select a Named Option (p. 924) for courses required.

NAMED OPTIONS (SUB-MAJORS)

A named option is a formally documented sub-major within an academic major program. Named options appear on the transcript with degree conferral. Students pursuing the MBA in Business: Marketing must select one of the following named options:

- Business: Marketing: Market Research, MBA (p. 925)
- Business: Marketing: Product Management, MBA (p. 927)

POLICIES

GRADUATE SCHOOL POLICIES

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MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

No credits of prior coursework are allowed to satisfy requirements.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

No credits of prior coursework are allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

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An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements;

that coursework may not count toward Graduate School credit requirements.

OTHER

Students must be enrolled full time.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Clearly articulate a business recommendation based on a discovered consumer insight. (Market Research Named Option)
2. Demonstrate a knowledge of or ability to grow business profitably through marketing research efforts. (Market Research Named Option)
3. Articulate a business problem and translate it into a marketing research question. (Market Research Named Option)
4. Evaluate a business problem and apply an appropriate marketing research technique to address the problem. (Market Research Named Option)
5. Develop key elements of a brand's business plan that drive growth. (Product Management Named Option)
6. Perform business analytics used to improve a brand's business results. (Product Management Named Option)
7. Articulate a plan for achieving their industry professional aspirations. (Market Research Named Option)
8. Demonstrate professional protocols for succeeding in the corporate environment. (Product Management Named Option)
9. Summarize current challenges faced by the marketing research industry and know potential solutions or how the industry is approaching the challenge. (Market Research Named Option)
10. Effectively communicate in order to drive growth for their brand's business. (Product Management Named Option)
11. Understand how to lead a cross-functional brand and product team to achieve a goal or an objective. (Product Management Named Option)

PEOPLE

Faculty: Professors O'Guinn (chair), Arora, Braker, Heide, Lim, Moreau, Thompson; Associate Professors Epp, Liu, Peck, Tanner; Assistant Professors Chung, Hoban, Mallucci, Polman, Weiss

ACCREDITATION

Accreditation

AACSB International—The Association to Advance Collegiate Schools of Business (<http://www.aacsb.edu>)

Accreditation status: Accredited. Next accreditation review: 2021-2022.

BUSINESS: MARKETING: MARKET RESEARCH, MBA

This is a named option in the Business: Marketing MBA. (p. 923)

ADMISSIONS

Admission consideration for the MBA Program requires a four-year undergraduate degree or the equivalent, in any discipline, from an accredited institution. The School of Business seeks a minimum of two years of full-time work experience along with a strong undergraduate performance. In addition to academic credentials, GMAT scores and work experience, personal achievements, motivation, communication skills (written and oral), international exposure and recommendation letters are considered in the admission process at both the master's and doctoral levels.

Note: The Graduate Management Admission Test (GMAT), taken within five years of the starting term, is required of all applicants to the School of Business; the Graduate Record Exam (GRE) may be an acceptable alternative on a case by case basis. All applicants whose native language is not English must submit scores from the Test of English as a Foreign Language (TOEFL), the Pearson Test of English (PTE), Intensive English as a Second Language (IELTS), or show the completion of an Interlink program. A minimum iBT TOEFL score of 100 or equivalent, obtained within two years of the intended start term, is required. International applicants who have completed a degree at an institution whose primary language of instruction was English may request a waiver of this requirement on the application.

HOW TO APPLY

Students interested in Business degrees do not apply through the Graduate School application system and should instead refer to the School of Business Admissions page. (<https://wsb.wisc.edu/programs-degrees/mba/full-time/admissions>)

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Contact the program for information on required assessments and examinations.

Language Requirements Contact the program for information on any language requirements.

REQUIRED COURSES

Code	Title	Credits
Year One		
<i>Fall Semester</i>		
GEN BUS 704	Data to Decisions	3
ACCT I S 700	Financial Accounting	3
FINANCE 700	Introduction to Financial Management	3
MARKETNG 700	Marketing Management	3
M H R 706	Leading and Working in Teams	1
MARKETNG 710	Marketing Research	3
MARKETNG 765	Contemporary Topics	1
<i>Spring Semester</i>		
M H R 723	Business Strategy	3
OTM 700	Operations Management	3
OTM 732	Economics for Managers	3
MARKETNG 737	Creating Breakthrough New Products	3
MARKETNG 815	Marketing Analytics	3
MARKETNG 765	Contemporary Topics	1
Year Two		
<i>Fall Semester</i>		
GEN BUS 710	Ethics, Integrity and Society	1
MATH/STAT 803	Experimental Design I	3
Electives		9
MARKETNG 765	Contemporary Topics	1
<i>Spring Semester</i>		
ED PSYCH 773	Factor Analysis, Multidimensional Scaling and Cluster Analysis	3
MARKETNG 805	Qualitatively-Based Marketing Insights	3
MARKETNG 765	Contemporary Topics (Topic: Consumer Insights Consulting Practicum)	3
Elective		3
MARKETNG 765	Contemporary Topics	1
Total Credits		60

POLICIES

GRADUATE SCHOOL POLICIES

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NAMED OPTION-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

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PRIOR COURSEWORK

Graduate Work from Other Institutions

No credits of prior coursework are allowed to satisfy requirements.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

No credits of prior coursework are allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements;

that coursework may not count toward Graduate School credit requirements.

OTHER

Students must be enrolled full-time.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

BUSINESS: MARKETING: PRODUCT MANAGEMENT, MBA

This is a named option in the Business: Marketing MBA. (p. 923)

ADMISSIONS

Admission consideration for the MBA Program requires a four-year undergraduate degree or the equivalent, in any discipline, from an accredited institution. The School of Business seeks a minimum of two years of full-time work experience along with a strong undergraduate performance. In addition to academic credentials, GMAT scores and work experience, personal achievements, motivation, communication skills (written and oral), international exposure and recommendation letters are considered in the admission process at both the master's and doctoral levels.

Note: The Graduate Management Admission Test (GMAT), taken within five years of the starting term, is required of all applicants to the School of Business; the Graduate Record Exam (GRE) may be an acceptable alternative on a case by case basis. All applicants whose native language is not English must submit scores from the Test of English as a Foreign Language (TOEFL), the Pearson Test of English (PTE), Intensive English as a Second Language (IELTS), or show the completion of an Interlink program. A minimum iBT TOEFL score of 100 or equivalent, obtained within two years of the intended start term, is required. International applicants who have completed a degree at an institution whose primary language of instruction was English may request a waiver of this requirement on the application.

HOW TO APPLY

Students interested in Business degrees do not apply through the Graduate School application system and should instead refer to the School of Business Admissions page. (<https://wsb.wisc.edu/programs-degrees/mba/full-time/admissions>)

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from

the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement	30 credits
Minimum Residence Credit Requirement	16 credits
Minimum Graduate Coursework Requirement	Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (https://registrar.wisc.edu/course-guide/).
Overall Graduate GPA Requirement	3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Contact the program for information on required assessments and examinations.

Language Requirements Contact the program for information on any language requirements.

REQUIRED COURSES

Code	Title	Credits
Year One		
<i>Fall Semester</i>		
GEN BUS 704	Data to Decisions	3
ACCT I S 700	Financial Accounting	3
FINANCE 700	Introduction to Financial Management	3
MARKETNG 700	Marketing Management	3
M H R 706	Leading and Working in Teams	1
MARKETNG 710	Marketing Research	3
MARKETNG 765	Contemporary Topics (Topic: CBPM Applied Learning)	1
<i>Spring Semester</i>		
M H R 723	Business Strategy	3
OTM 700	Operations Management	3
OTM 732	Economics for Managers	3
MARKETNG 737	Creating Breakthrough New Products	3
MARKETNG 815	Marketing Analytics	3
MARKETNG 765	Contemporary Topics (Topic: CBPM Applied Learning)	1
MARKETNG 765	Contemporary Topics (Topic: Global Applied Learning (optional))	1
Year Two		
<i>Fall Semester</i>		
GEN BUS 710	Ethics, Integrity and Society	1
MARKETNG 725	Marketing Channels	3
MARKETNG 735	Brand Strategy	3
MARKETNG 765	Contemporary Topics (Topic: CBPM Applied Learning)	1
Electives		6
Optional Elective		
<i>Spring Semester</i>		
MARKETNG 460	Marketing Strategy	3
MARKETNG 715	Marketing Communications	3
MARKETNG 765	Contemporary Topics	1
Electives		6
Optional Elective		
Total Credits		61

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

NAMED OPTION-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

No credits of prior coursework are allowed to satisfy requirements.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

No credits of prior coursework are allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements;

that coursework may not count toward Graduate School credit requirements.

OTHER

Students must be enrolled full time.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

MATERIALS SCIENCE AND ENGINEERING

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Materials Engineering, M.S. (p. 929)
- Materials Engineering, Ph.D. (p. 932)
- Materials Science and Engineering, Doctoral Minor (p. 934)
- Materials Science and Engineering, M.S. (p. 934)
- Materials Science and Engineering, Ph.D. (p. 942)
- Materials Science, M.S. (p. 947)
- Materials Science, Ph.D. (p. 949)

MATERIALS ENGINEERING, M.S.

Admissions to the Materials Engineering M.S. have been suspended as of spring 2016 and will be discontinued as of fall 2019. If you have any questions, please contact the department (msaedpt@engr.wisc.edu).

The department mission is to provide local, national, and international leadership in materials research and education. Graduate research in materials science and engineering covers a full range of cutting-edge technologies.

Department faculty run internationally recognized research programs which span the field to include computational materials science, biomaterials, nanomaterials, energy related materials, metals, polymers, electronic materials, ceramics, and composites. Of the 17 full-time faculty in the Department of Materials Science and Engineering, five senior faculty belong to the National Academy of Engineering and five assistant professors introduce expertise in exciting new areas. Faculty at all levels bring leadership in research and education.

The creation of advanced materials and devices requires the application of increasingly sophisticated concepts and tools. Tailored materials with desired properties can be engineered through control of the structure of solids at all length scales ranging from centimeters down to the atomic level. Students of materials are engaged in creating and understanding new materials and new materials phenomena. After they leave Wisconsin, materials graduates find careers in private industry, national laboratories, and academia.

The UW offers two graduate programs in materials: Materials Engineering (M S & E) and the Materials Science Program (MSP). Students who apply to one are usually considered by the other. Department faculty supervise the thesis work of students from both M S & E and MSP.

The vast majority of students receive financial aid in the form of fellowships, research or teaching assistantships, or advanced opportunity grants.

ADMISSIONS

Admissions to the Materials Engineering M.S. have been suspended as of spring 2016 and will be discontinued as of fall 2019. If you have any questions, please contact the department (msaedep@engr.wisc.edu).

The requirements for the M.S. in Materials Engineering have been merged with Materials Science. See "Materials Science & Engineering M.S. (p. 934)" The information that appears in this entry is provided for the benefit of students currently admitted to the program.

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules.

Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely

online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement	30 credits
Minimum Residence Credit Requirement	16 credits
Minimum Graduate Coursework Requirement	Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (https://registrar.wisc.edu/course-guide/).
Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.
Assessments and Examinations	Contact the program for information on required assessments and examinations.
Language Requirements	Contact the program for information on any language requirements.

REQUIRED COURSES

Contact the program for information on any additional required courses.

Code	Title	Credits
CBE 660	Intermediate Problems in Chemical Engineering ¹	3
E P/E M A 547	Engineering Analysis I ¹	3
E P/E M A 548	Engineering Analysis II ¹	3
MATH 703	Methods of Applied Mathematics 1 ¹	3
MATH 704	Methods of Applied Mathematics-2 ¹	3
PHYSICS 721	Theoretical Physics-Electrodynamics ¹	3
M S & E 900	Materials Research Seminar ²	1
M S & E 530	Thermodynamics of Solids ³	3
M S & E 570	Properties of Solid Surfaces ³	3
M S & E 445	³	3
CBE 540	Polymer Science and Technology	3
CBE/E C E/ M S & E 544	Processing of Electronic Materials	3

The courses must span two or more departments, meeting the objective of an interdisciplinary education in materials.

Also within the first year, each student must select and declare to the MSP office three core courses that are fundamental to their research specialization. These courses must be approved by the student's MSP advisor. In the Research Report and Research Readiness exam, the student will be examined orally on these subjects in addition to questions on their research presentation.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count graduate coursework from other institutions toward the minimum graduate degree credit requirement and the minimum graduate coursework (50%) requirement. No credits from other institutions can be counted toward the minimum graduate residence credit requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW-Madison Undergraduate

Up to 7 credits numbered 300 or above can be counted toward the minimum graduate degree credit requirement. Up to 7 credits of MS&E courses numbered 700 or above can be counted toward the minimum graduate coursework (50%) requirement. No credits can be counted toward the minimum graduate residence credit requirement.

UW-Madison University Special

With program approval and payment of the difference in tuition (between Special and graduate tuition), students are allowed to count up to 15 credits of coursework numbered 300 or above taken as a UW-Madison Special student toward the minimum graduate residence credit requirement, and the minimum graduate degree credit requirement; if that coursework is numbered 700 or above it may satisfy the minimum graduate coursework (50%) requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could

result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

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An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

n/a

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

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PEOPLE

FACULTY:

Professors:

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Assistant Professors:

Jason Kawasaki and Jamian Hu.

AFFILIATE FACULTY:

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Lynn, Zhenqiang Jack Ma, Kristyn Masters, Luke Mawst, Robert McDermott, William Murphy, Dan Negrut, Marshall Onellion, Tim Osswald, Sean Palecek, Frank Pfefferkorn, Heidi-Lynn Ploeg, Jess Reed, Mark Rzchowski, Majid Sarmadi, J. Leon Shohet, Kumar Sridharan, Darryl Thelen, Lih-sheng Turng, Daniel van der Weide, Ray Vanderby, Douglas Weibel, Amy Wendt, Justin Williams, Michael Winokur, Huifang Xu, Zongfu Yu

MATERIALS ENGINEERING, PH.D.

Admissions to the Materials Engineering Ph.D. have been suspended as of spring 2016 and will be discontinued as of fall 2019. If you have any questions, please contact the department (msaedept@engr.wisc.edu).

The requirements for the Ph.D. in materials engineering have been merged with Materials Science. See the Materials Science and Engineering Ph.D (p. 942). The information that appears in this entry is provided for the benefit of students currently admitted to the program.

The department mission is to provide local, national, and international leadership in materials research and education. Graduate research in materials science and engineering covers a full range of cutting-edge technologies.

Department faculty run internationally recognized research programs which span the field to include computational materials science, biomaterials, nanomaterials, energy related materials, metals, polymers, electronic materials, ceramics, and composites. Of the 17 full-time faculty in the Department of Materials Science and Engineering, five senior faculty belong to the National Academy of Engineering and five assistant professors introduce expertise in exciting new areas. Faculty at all levels bring leadership in research and education.

The creation of advanced materials and devices requires the application of increasingly sophisticated concepts and tools. Tailored materials with desired properties can be engineered through control of the structure of solids at all length scales ranging from centimeters down to the atomic level. Students of materials are engaged in creating and understanding new materials and new materials phenomena. After they leave Wisconsin, materials graduates find careers in private industry, national laboratories, and academia.

The UW offers two graduate programs in materials: Materials Engineering (MS&E) and the Materials Science Program (MSP). Students who apply to one are usually considered by the other. Department faculty supervise the thesis work of students from both MS&E and MSP.

The vast majority of students receive financial aid in the form of fellowships, research or teaching assistantships, or advanced opportunity grants.

ADMISSIONS

Admissions to the Materials Engineering Ph.D. have been suspended as of spring 2016 and will be discontinued as of fall 2019. If you have any questions, please contact the department (msaedept@engr.wisc.edu).

The requirements for the M.S. in Materials Engineering have been merged with Materials Science. See "Materials Science & Engineering Ph.D. (p. 942)". The information that appears in this entry is provided for the benefit of students currently admitted to the program.

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum	51 credits
Credit Requirement	
Minimum	32 credits
Residence Credit Requirement	

Minimum Graduate Coursework Requirement	Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle).
Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.
Assessments and Examinations	Doctoral students are required to take a comprehensive preliminary/oral examination after they have cleared their record of all Incomplete and Progress grades (other than research and thesis). Deposit of the doctoral dissertation in the Graduate School is required.
Language Requirements	Contact the program for information on any language requirements.
Doctoral Minor/Breadth Requirements	All doctoral students are required to complete a minor.

REQUIRED COURSES

Contact the program for information on any additional required courses.

Code	Title	Credits
CBE 660	Intermediate Problems in Chemical Engineering ¹	3
E P/E M A 547	Engineering Analysis I ¹	3
E P/E M A 548	Engineering Analysis II ¹	3
MATH 703	Methods of Applied Mathematics 1 ¹	3
MATH 704	Methods of Applied Mathematics-2 ¹	3
PHYSICS 721	Theoretical Physics-Electrodynamics ¹	3
M S & E 900	Materials Research Seminar ²	1
M S & E 530	Thermodynamics of Solids ³	3
M S & E 570	Properties of Solid Surfaces ³	3
M S & E 445	³	3
CBE 540	Polymer Science and Technology	3
CBE/E C E/ M S & E 544	Processing of Electronic Materials	3

The courses must span two or more Departments, meeting the objective of an interdisciplinary education in materials.

Also within the first year, each student must select and declare to the MSP office three core courses that are fundamental to their research specialization. These courses must be approved by the student's MSP advisor. In the Research Report and Research Readiness exam, the student will be examined orally on these subjects in additions to questions on their research presentation.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

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PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count graduate coursework from other institutions toward the minimum graduate degree credit requirement and the minimum graduate coursework (50%) requirement. No credits from other institutions can be counted toward the minimum graduate residence credit requirement. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW-Madison Undergraduate

Up to 7 credits numbered 300 or above can be counted toward the minimum graduate degree credit requirement. Up to 7 credits of MS&E courses numbered 700 or above can be counted toward the minimum graduate coursework (50%) requirement. No credits can be counted toward the minimum graduate residence credit requirement. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW-Madison University Special

With program approval and payment of the difference in tuition (between Special and graduate tuition), students are allowed to count up to 15 credits of coursework numbered 300 or above taken as a UW-Madison Special student toward the minimum graduate residence credit requirement, and the minimum graduate degree credit requirement; if that coursework is numbered 700 or above it may satisfy the minimum graduate coursework (50%) requirement. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate

studies. An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor.

To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

OTHER

n/a

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

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PEOPLE

FACULTY:

Professors:

Mike Arnold, Sue Babcock, Chang-Beom Eom, Paul Evans, Padma Gopalan, Sindo Kou, Max Lagally, Rod Lakes, Dane Morgan, John Perepezko, Ian Robertson, Don Stone, Izabela Szlufarska, Paul Voyles, and Xudong Wang.

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McDermott, William Murphy, Dan Negrut, Marshall Onellion, Tim Osswald, Sean Palecek, Frank Pfefferkorn, Heidi-Lynn Ploeg, Jess Reed, Mark Rzchowski, Majid Sarmadi, J. Leon Shohet, Kumar Sridharan, Darryl Thelen, Lih-sheng Turng, Daniel van der Weide, Ray Vanderby, Douglas Weibel, Amy Wendt, Justin Williams, Michael Winokur, Huifang Xu, Zongfu Yu

MATERIALS SCIENCE AND ENGINEERING, DOCTORAL MINOR

The M S & E department offers a minor in Materials Science and Engineering for students studying towards a Ph.D. in other disciplines. The doctoral minor consists of at least 9 credits (typically 3 courses) of M S & E (http://guide.wisc.edu/courses/m_s_e) courses. Within those nine credits, 6 must be at the 400 level or above, and 3 must be at the 700 level or above. Students must earn a B or higher in every course.

PEOPLE

FACULTY:

Professors:

Mike Arnold, Sue Babcock, Chang-Beom Eom, Paul Evans, Padma Gopalan, Sindo Kou, Max Lagally, Rod Lakes, Dane Morgan, John Perepezko, Ian Robertson, Don Stone, Izabela Szlufarska, Paul Voyles, and Xudong Wang.

Assistant Professors:

Jason Kawasaki and Jamian Hu.

AFFILIATE FACULTY:

Nicholas Abbott, Todd Allen, Randolph Ashton, David Beebe, John Booske, Dan Botez, Weibo Cai, Naomi Chesler, Susan Coppersmith, Adrien Couet, Steven Cramer, Wendy Crone, Walter Drugan, Mark Eriksson, Melih Eriten, Pupa Gilbert, Randall Goldsmith, Shaoqin Sarah Gong, Sundaram Gunasekaran, Robert Hamers, William Hitchon, Hongrui Jiang, Song Jin, Mikhail Kats, Patricia Keely, Daniel Klingenberg, Irena Knezevic, Tom Kuech, Wang-ju Li, David Lynn, Zhenqiang Jack Ma, Kristyn Masters, Luke Mawst, Robert McDermott, William Murphy, Dan Negrut, Marshall Onellion, Tim Osswald, Sean Palecek, Frank Pfefferkorn, Heidi-Lynn Ploeg, Jess Reed, Mark Rzchowski, Majid Sarmadi, J. Leon Shohet, Kumar Sridharan, Darryl Thelen, Lih-sheng Turng, Daniel van der Weide, Ray Vanderby, Douglas Weibel, Amy Wendt, Justin Williams, Michael Winokur, Huifang Xu, Zongfu Yu

MATERIALS SCIENCE AND ENGINEERING, M.S.

The Department of Materials Science and Engineering offers opportunities for graduate study leading to the master of science and the doctor of philosophy degrees in materials science and engineering.

The department offers two distinct master of science programs. The named option program, Nanomaterials and Nanoengineering (p. 939), is an accelerated program that can be completed in one full year of study, and are designed for students wishing to pursue a career in industry or

government. The traditional master of science program is designed for students wishing to conduct research during their program.

ABOUT MATERIALS SCIENCE AND ENGINEERING

Meeting many of the most critical challenges facing modern society requires advances in the materials that underpin new technologies. Examples include providing carbon-free and renewable energy, clean water, advanced medical treatments and devices, and sustainable materials manufacturing. New materials are also required for continued economic growth in areas as diverse as aerospace, computing, and sensors.

Materials scientists and engineers at UW–Madison work toward solutions to these problems via research in a wide variety of areas.

Research areas include ceramics, computational material science; composites; corrosion; electrical, optical, magnetic materials; growth and synthesis; joining; materials for energy; metals; materials characterization and microscopy; nanomaterials; phase transformations; photonics; polymers and biomaterials; materials for nuclear energy; quantum computing; self-assembly; semiconductors; structural materials and mechanical properties; surfaces and interfaces; sustainability; thin films; and wear.

More broadly, the field of materials science and engineering is in the middle of a revolution in how we design and deploy new materials. The old way is by trial and error, which involves laboratory testing of hundreds or thousands of candidate materials, which is costly and can take decades to develop a new materials and deploy it in practical technologies. The emerging new method leverages advances in computational materials science; materials databases, data science, and machine learning; and high throughput materials synthesis and characterization to achieve true design of materials. The goal is to develop and deploy new materials much more quickly and much lower cost than ever before. Materials design is a major theme of materials research on campus, organized around the areas of materials design via atomically controlled thin film systems, modular design of nanomaterials, and integrated experimental and computational materials engineering. Materials design and these themes cut across the research and application areas list above.

Materials research extends across campus, well beyond the boundaries of the Department of Materials Science and Engineering, so graduate students in materials can pursue research with a large number of affiliate faculty. Faculty emphasize the cross-cutting, interdisciplinary nature of materials research, which is also reflected by the diverse undergraduate backgrounds of the student body, many of whom do not have undergraduate degrees in materials.

Materials research benefits from major campus facilities, including the Materials Science Center, the Wisconsin Microscopy and Characterization Center, Wisconsin Center for Applied Microelectronics, and the Soft Materials Laboratory. Research is supported by major centers, including the National Science Foundation Materials Research Science and Engineering Center and the Grainger Institute for Engineering.

Materials graduates from Wisconsin find long-term success in careers in private industry, national laboratories, and academia in the US and around the world.

ADMISSIONS

Applicants normally are expected to have a B.S. in the physical sciences or engineering. Undergraduate studies normally would include mathematics through differential equations, at least one year each of general physics and chemistry, a course in physical chemistry or modern physics, and an elementary course in properties of materials. Applicants may be admitted with deficiencies. These must be made up as soon as possible after entering the program.

IMPORTANT APPLICATION INFORMATION

Admission to the University of Wisconsin–Madison Graduate School (<http://grad.wisc.edu>) is a prerequisite for admission to study materials science. A minimum GPA of 3.0/4.0 is required. Graduate Record Examinations (<http://www.ets.org/gre>) scores on the General Test are required. Admission is highly selective. Most admitted students have an undergraduate GPA above 3.5. Mean GRE scores in the most recent admission cycle were quantitative: 166, verbal: 163, and analytical writing: 3.5. However, full consideration will be given to all students meeting the UW–Madison graduate school requirements. Please use institution code: 1846; no department code is necessary.

Foreign students must submit satisfactory results on the TOEFL (<http://www.ets.org/toefl>) or another acceptable English Language Test. Please use institution code: 1846; no department code is necessary. Information about these exams can be obtained from the Educational Testing Service, Princeton, New Jersey 08540 or Berkeley, California 94704.

Please use the online application (<https://apply.grad.wisc.edu/Account/Login?ReturnUrl=%2f>) to begin your application. To be considered for fellowships, all application materials are due by January 1. If you have questions about the application or admissions process, please do not hesitate to email msaegradadmission@engr.wisc.edu.

The graduate school offers a limited number of application fee grants (waivers of all or part of the application fee) that are available in a few specific circumstances. Further information is available here. (<https://grad.wisc.edu/admissions/feegrants>)

#Submit only the documents requested.

NOTE: PLEASE DO NOT SEND DOCUMENTS TO THE GRADUATE SCHOOL. ALL DOCUMENTS SHOULD BE UPLOADED WITH YOUR APPLICATION.

APPLICATION DEADLINES:

Spring semester: October 1

Fall semester: January 1

QUESTIONS?

Check out the Admissions FAQ or contact us at msaegradadmission@engr.wisc.edu.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

FINANCIAL ASSISTANCE

Please note that most funding is available for Ph.D. students and there is limited resources for M.S. students. International students must prove one year of funding before requesting assistance. Financial assistance is not available for students enrolled in the named option M.S. in Nanomaterials and Nanoengineering (p. 939).

Various types of financial assistance are available for entering graduate students, including research assistantships, teaching assistantships, fellowships and special grants. Decisions regarding financial support are made on the basis of letters of recommendation, grades, GRE general test scores, and, for research assistantships, the matching of the interests or experience of the applicant to the research programs of individual faculty members. January 1 is the deadline for receipt of fellowship applications. Foreign students are generally not eligible for university fellowships. Applications for other types of support are accepted until mid-February.

RESEARCH AND TEACHING ASSISTANTSHIPS

Research assistantships (RAs) are available in any materials science area. These appointments are under the supervision of the major professor directing the research. Students interested in research assistantships in a particular area are encouraged to contact professors whose work is of special interest. The faculty's research interests are given in the Department of Materials Science and Engineering faculty section. An RA permits the most rapid progress toward a degree. Research assistantships in materials science graduate students are comparable to similar stipends from other institutions. Information about stipends can be obtained from the director of graduate studies, dgs@mse.wisc.edu.

Teaching assistantships involve teaching rather than research experience. They pay approximately the same as research assistantships. Teaching experience is especially desirable for students considering an academic career. The Department of Materials Science and Engineering supports a limited number of teaching assistantships, which are allocated after admissions. Applications for teaching assistantship positions for the 2018–2019 academic year are available here (https://docs.google.com/document/d/1-L8U7xhNQ9i-FOJbk0gJA67H8tZzC09qRytlDeGZ_lo/edit).

FELLOWSHIPS

Herb Fellowships in Materials Science are given out each year. The Herb Fellowship is a one-year full-ride fellowship for incoming graduate students. It is intended to provide especially strong students extra flexibility and independence in formulating their graduate research program.

Fellowships supporting graduate education are also offered on a competitive basis by organizations such as the National Science

Foundation (<http://www.nsf.gov>), the Hertz Foundation (<http://www.hertzfndn.org>), UW–Madison Graduate School (<http://www.wisc.edu/grad>), the U.S. Department of Defense and a number of industries and foundations. Because some of these fellowships have fall application deadlines, early application is necessary. GRE scores for the General Test are required for fellowship applications.

OTHER FUNDING INFORMATION

If you choose to attend UW-Madison and plan to pursue funding on your own, the following sites could be very helpful:

- Graduate School Funding Resources (<https://grad.wisc.edu/studentfunding/prospective>)
- Graduate School Costs and Funding (<https://grad.wisc.edu/studentfunding/currentstudents>)
- Tuition & Fees (https://registrar.wisc.edu/tuition_&_fees.htm)

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum 30 credits
Credit
Requirement

Minimum Residence Credit Requirement	16 credits
Minimum Graduate Coursework Requirement	Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (https://registrar.wisc.edu/course-guide/).
Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.
Assessments and Examinations	Students must prepare a Master's thesis, present it in a public seminar, and defend it in closed examination by their Master's committee. The format and procedures must conform to the Graduate School rules for a Master's thesis, currently found at http://grad.wisc.edu/currentstudents/mastersthesis .
Language Requirements	None.

REQUIRED COURSES

Code	Title	Credits
M S & E 900	Materials Research Seminar ¹	1
M S & E 530	Thermodynamics of Solids ²	3
M S & E 551	Structure of Materials ²	3
M S & E 521	Advanced Polymeric Materials ²	3
E P/E M A 547	Engineering Analysis I ²	3
CBE 660	Intermediate Problems in Chemical Engineering ²	3
MATH 703	Methods of Applied Mathematics 1 ²	3
MATH 704	Methods of Applied Mathematics-2 ²	3
PHYSICS 721	Theoretical Physics-Electrodynamics ²	3
M S & E 752	Advanced Materials Science: Phase Transformations ²	3
Select two materials electives ³		
M S & E 790	Master's Research or Thesis ⁴	13

¹ Take two semesters.

² Take three materials core course, chosen from these options.

³ Electives are to be selected from the list below.

⁴ MS&E graduate students are required to take at least 13 credits of research study.

Elective Courses:

Code	Title	Credits
M S & E 401	Special Topics in Materials Science and Engineering	1-3

M S & E/CHEM 421	Polymeric Materials	3
M S & E/N E 423	Nuclear Engineering Materials	3
M S & E/N E 433	Principles of Corrosion	3
M S & E 434	Introduction to Thin-Film Deposition Processes	3
M S & E/M E 435	Joining of Materials: Structural, Electronic, Bio and Nano Materials	3
M S & E 441	Deformation of Solids	3
M S & E 445		3
M S & E 448	Crystallography and X-Ray Diffraction	3
M S & E 451	Introduction to Ceramic Materials	3
M S & E 456	Electronic, Optical, and Magnetic Properties of Materials	3
M S & E 461	Advanced Metal Casting	3
M S & E/M E 462	Welding Metallurgy	3
M S & E 463	Materials for Elevated Temperature Service	3
M S & E 465	Fundamentals of Heat Treatment	3
M S & E 521	Advanced Polymeric Materials	3
M S & E 530	Thermodynamics of Solids	3
M S & E/E M A 541	Heterogeneous and Multiphase Materials	3
M S & E 551	Structure of Materials	3
M S & E 553	Nanomaterials & Nanotechnology	3
M S & E 560	Fundamentals of Atomistic Modeling	3
M S & E 570	Properties of Solid Surfaces	3
M S & E 748	Structural Analysis of Materials	3
M S & E 750	Imperfections and Mechanical Properties	3
M S & E 752	Advanced Materials Science: Phase Transformations	3
M S & E 756	Structure and Properties of Advanced Electronic Materials	3
M S & E 760	Molecular Dynamics and Monte Carlo Simulations in Materials Science	3
M S & E 803	Special Topics in Materials Science	1-3
B M E/PHM SCI 430	Biological Interactions with Materials	3
B M E/M E 615	Tissue Mechanics	3
BIOCHEM/CHEM 704	Chemical Biology	2
CBE 540	Polymer Science and Technology	3
CBE 747	Advanced Colloid and Interface Science	3
CHEM 652	Chemistry of Inorganic Materials	3
CHEM 653	Chemistry of Nanoscale Materials	3
CHEM 621	Instrumental Analysis	3-4
CHEM 654	Materials Chemistry of Polymers	2-3
CHEM 664	Physical Chemistry of Macromolecules	2-3
E C E 745	Solid State Electronics	3
GEOSCI 765	Crystal Chemistry	3

PHYSICS 415	Thermal Physics	3
PHYSICS 551	Solid State Physics	3
PHYSICS 715	Statistical Mechanics	3
PHYSICS 751	Advanced Solid State Physics	3

The same course may not satisfy more than one requirement. For example, if M S & E 530 Thermodynamics of Solids is taken as a materials core course, it could not be used as a materials elective course. In addition, only one mathematics course may be counted as a materials core or materials elective course. Students or faculty may request that a course be added to the list by submitting a letter to the department graduate secretary including the course syllabus and explaining why the course is a materials-centric course.

NAMED OPTIONS (SUB-MAJORS)

A named option is a formally documented sub-major within an academic major program. Named options appear on the transcript with degree conferral.

- Materials Science and Engineering: Nanomaterials and Nanoengineering, M.S. (p. 939)

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (https://www.engr.wisc.edu/app/uploads/2016/01/MSE-Graduate-Curriculum-adopted-01_26_16-corrected-7-12-17.pdf) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count graduate coursework from other institutions toward the minimum graduate degree credit requirement and the minimum graduate coursework (50%) requirement. No credits from other institutions can be counted toward the minimum graduate residence credit requirement. For additional requirements, consult the program.

UW–Madison Undergraduate

Typically, no credits from undergraduate coursework may be counted toward graduate program requirements. However, with program approval, students are allowed to count up to 7 credits numbered 300 or above toward the minimum graduate degree credit requirement when taken in excess of the undergraduate degree requirements; if that coursework is numbered 700 or above it may be used to satisfy the minimum graduate coursework (50%) requirement. No credits can

be counted toward the minimum graduate residence credit requirement.

UW–Madison University Special

Typically, no UW–Madison University Special student credits may be counted toward graduate program requirements.

However, with program approval, students are allowed to count up to 15 credits of coursework numbered 300 or above taken as a UW–Madison Special student toward the minimum graduate residence credit requirement, and the minimum graduate degree credit requirement; if that coursework is numbered 700 or above it may satisfy the minimum graduate coursework (50%) requirement.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies. An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

Students without a researcher advisor at the end of their first year enrolled are in danger of failing to make adequate progress towards their degree. Students can be suspended from the Graduate School if they do not have an advisor.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

The Master's degree is typically completed within three years.

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

n/a

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PROGRAM RESOURCES

Find information about professional development from the College of Engineering at the following webpage: <https://epd.wisc.edu/>.

LEARNING OUTCOMES

1. Demonstrate a strong understanding of mathematical, scientific, and engineering principles in the field.
2. Demonstrate an ability to formulate, analyze, and solve advanced engineering problems.
3. Demonstrate creative, independent problem solving skills.
4. Apply the latest scientific and technological advancements, advanced techniques, and modern engineering tools to these problems.
5. Recognize and apply principles of ethical and professional conduct.

PEOPLE

FACULTY:

Professors:

Mike Arnold, Sue Babcock, Chang-Beom Eom, Paul Evans, Padma Gopalan, Sindo Kou, Max Lagally, Rod Lakes, Dane Morgan, John Perepezko, Ian Robertson, Don Stone, Izabela Szlufarska, Paul Voyles, and Xudong Wang.

Assistant Professors:

Jason Kawasaki and Jamian Hu.

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MATERIALS SCIENCE AND ENGINEERING: NANOMATERIALS AND NANOENGINEERING, M.S.

This is a non-thesis named option within the Materials Science and Engineering M.S. (p. 934)

Nanomaterials and nanoengineering are part of a rapidly expanding industrial segment. According to the NSF-funded National

Nanotechnology Initiative, up to 1 million jobs in nanotechnology are expected to be available in the United States.

IS THIS PROGRAM RIGHT FOR YOU?

The demand for engineers who specialize in nanotechnology and nanoengineering is growing rapidly. The Nanomaterials and Nanoengineering program provides students with the opportunity to build a comprehensive fundamental and applied knowledge base for nanomaterials processing, characterization, and nanodevice development.

If questions, please contact CoE Grad Admissions at msaegradadmission@engr.wisc.edu; Subject Line: MSE Grad Admissions. *Please see admission requirements on the Admissions tab.*

ADMISSIONS

Applicants normally are expected to have a B.S. in the physical sciences or engineering. Undergraduate studies normally would include mathematics through differential equations, at least one year each of general physics and chemistry, a course in physical chemistry or modern physics, and an elementary course in properties of materials. Applicants may be admitted with deficiencies. These must be made up as soon as possible after entering the program.

IMPORTANT APPLICATION INFORMATION

Admission to the University of Wisconsin–Madison Graduate School (<http://grad.wisc.edu>) is a prerequisite for admission to study materials science. A minimum GPA of 3.0/4.0 is required. Graduate Record Examinations (<http://www.ets.org/gre>) scores on the General Test are required. Admission is highly selective. Most admitted students have an undergraduate GPA above 3.5. Mean GRE scores in the most recent admission cycle were quantitative: 166, verbal: 163, and analytical writing: 3.5. However, full consideration will be given to all students meeting the UW–Madison graduate school requirements. Please use institution code: 1846; no department code is necessary.

Foreign students must submit satisfactory results on the TOEFL (<http://www.ets.org/toefl>) or another acceptable English Language Test. Please use institution code: 1846; no department code is necessary. Information about these exams can be obtained from the Educational Testing Service, Princeton, New Jersey 08540 or Berkeley, California 94704.

Please use the online application (<https://apply.grad.wisc.edu/Account/Login?ReturnUrl=%2f>) to begin your application. If you have questions about the application or admissions process, please do not hesitate to e-mail msaegradadmission@engr.wisc.edu.

The graduate school offers a limited number of application fee grants (waivers of all or part of the application fee) that are available in a few specific circumstances. Further information is available here. (<https://grad.wisc.edu/admissions/feegrants>)

#Submit only the documents requested.

NOTE: PLEASE DO NOT SEND DOCUMENTS TO THE GRADUATE SCHOOL. ALL DOCUMENTS SHOULD BE UPLOADED WITH YOUR APPLICATION.

APPLICATION DEADLINES:

Spring semester: October 1

Fall semester: January 1

QUESTIONS?

Check out the Admissions FAQ or contact us at msaegradadmission@engr.wisc.edu.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

Financial assistance from the University or the Department is not available for the named option Masters of Science program in Nanomaterials and Nanoengineering.

If you would like to pursue funding on your own, the following sites could be helpful:

- Graduate School Funding Resources (<https://grad.wisc.edu/studentfunding/prospective>)
- Graduate School Costs and Funding (<https://grad.wisc.edu/studentfunding/currentstudents>)
- Tuition & Fees (https://registrar.wisc.edu/tuition_&_fees.htm)

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	Yes

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement	30 credits
Minimum Residence Credit Requirement	16 credits
Minimum Graduate Coursework Requirement	Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (https://registrar.wisc.edu/course-guide/).
Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.
Assessments and Examinations	No formal examination is required.
Language Requirements	None.

REQUIRED COURSES

- M S & E 350 Introduction to Materials Science: must be taken during the first semester of enrollment (3 credits).
- M S & E 900 Materials Research Seminar: must be taken in both the Fall and Spring semester (1 credit each, 2 credits total).
- M S & E 553 Nanomaterials & Nanotechnology
- A minimum of 22 additional credits from the courses listed below.
 - At least 9 credits of the additional coursework must be at the graduate level.
 - At most 6 credits of M S & E 699 Independent Study may be taken.

Code	Title	Credits
M S & E 350	Introduction to Materials Science ¹	3
M S & E 900	Materials Research Seminar ^{1,2}	2
M S & E 553	Nanomaterials & Nanotechnology ¹	3
M S & E 401	Special Topics in Materials Science and Engineering (by instructor consent) ³	1-3
M S & E/CHEM 421	Polymeric Materials ³	3
M S & E 434	Introduction to Thin-Film Deposition Processes ³	3
M S & E 448	Crystallography and X-Ray Diffraction ³	3

M S & E 456	Electronic, Optical, and Magnetic Properties of Materials ³	3
M S & E 521	Advanced Polymeric Materials ³	3
M S & E 530	Thermodynamics of Solids ³	3
M S & E 551	Structure of Materials ³	3
M S & E 560	Fundamentals of Atomistic Modeling ³	3
M S & E 570	Properties of Solid Surfaces ³	3
M S & E 699	Independent Study ^{3,4}	1-4
M S & E 748	Structural Analysis of Materials ³	3
M S & E 752	Advanced Materials Science: Phase Transformations ³	3
M S & E 756	Structure and Properties of Advanced Electronic Materials ³	3
M S & E 760	Molecular Dynamics and Monte Carlo Simulations in Materials Science ³	3
M S & E 803	Special Topics in Materials Science (by instructor consent) ³	1-3

¹ Required course.

² Must be enrolled in both fall and spring semesters.

³ Electives adding to at minimum 22 credits chosen from this list.

⁴ At most 6 credits may be taken.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

NAMED OPTION-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (https://www.engr.wisc.edu/app/uploads/2016/01/MSE-Graduate-Curriculum-adopted-01_26_16-corrected-7-12-17.pdf) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count graduate coursework from other institutions toward the minimum graduate degree credit requirement and the minimum graduate coursework (50%) requirement. No credits from other institutions can be counted toward the minimum graduate residence credit requirement. For additional requirements, consult the program.

UW–Madison Undergraduate

Typically, no credits from undergraduate coursework may be counted toward graduate program requirements. However, with program approval, students are allowed to count up to 7 credits numbered 300 or above toward the minimum

graduate degree credit requirement when taken in excess of the undergraduate degree requirements; if that coursework is numbered 700 or above it may be used to satisfy the minimum graduate coursework (50%) requirement. No credits can be counted toward the minimum graduate residence credit requirement.

UW–Madison University Special

Typically, no UW-Madison University Special student credits may be counted toward graduate program requirements.

However, with program approval, students are allowed to count up to 15 credits of coursework numbered 300 or above taken as a UW–Madison Special student toward the minimum graduate residence credit requirement, and the minimum graduate degree credit requirement; if that coursework is numbered 700 or above it may satisfy the minimum graduate coursework (50%) requirement.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies. In many cases, an advisor is assigned to incoming students. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

CREDITS PER TERM ALLOWED

15 credits; Suggested course credit allocation:

- Summer session: 4 credits
- Fall semester: 13 credits
- Spring semester: 13 credits

TIME CONSTRAINTS

The Master of Science in Nanomaterials and Nanoengineering, which is a named option program within the Department of Materials Science and Engineering, must be completed within one year.

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Students enrolled in this program are not permitted to accept teaching assistantships, project assistantships, research assistantships or other appointments that would result in a tuition waiver. Students in this program cannot enroll in other graduate programs nor take courses outside the prescribed curriculum.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PROGRAM RESOURCES

Find information about professional development from the College of Engineering at the following webpage: <https://epd.wisc.edu/>.

PEOPLE

Professors:

Mike Arnold, Sue Babcock, Chang-Beom Eom, Paul Evans, Padma Gopalan, Sindo Kou, Max Lagally, Rod Lakes, Dane Morgan, John Perepezko, Ian Robertson, Don Stone, Izabela Szlufarska, Paul Voyles, and Xudong Wang.

Assistant Professors:

Jason Kawasaki and Jamian Hu.

MATERIALS SCIENCE AND ENGINEERING, PH.D.

Meeting many of the most critical challenges facing modern society requires advances in the materials that underpin new technologies. Examples include providing carbon-free and renewable energy, clean water, advanced medical treatments and devices, and sustainable materials manufacturing. New materials are also required for continued economic growth in areas as diverse as aerospace, computing, and sensors.

Materials scientists and engineers at UW–Madison work toward solutions to these problems via research in a wide variety of areas.

Research areas include ceramics, computational material science; composites; corrosion; electrical, optical, magnetic materials; growth and synthesis; joining; materials for energy; metals; materials characterization and microscopy; nanomaterials; phase transformations; photonics; polymers and biomaterials; materials for nuclear energy; quantum computing; self-assembly; semiconductors; structural materials and mechanical properties; surfaces and interfaces; sustainability; thin films; and wear.

More broadly, the field of materials science and engineering is in the middle of a revolution in how we design and deploy new materials. The old way is by trial and error, which involves laboratory testing of hundreds or thousands of candidate materials, which is costly and can take decades to develop a new materials and deploy it in practical technologies. The emerging new method leverages advances in computational materials science; materials databases, data science, and machine learning; and high throughput materials synthesis and characterization to achieve true design of materials. The goal is to develop and deploy new materials much more quickly and much lower cost than ever before. Materials design is a major theme of materials research on campus, organized around the areas of materials design via atomically controlled thin film systems, modular design of nanomaterials,

and integrated experimental and computational materials engineering. Materials design and these themes cut across the research and application areas list above.

Materials research extends across campus, well beyond the boundaries of the Department of Materials Science and Engineering, so graduate students in materials can pursue research with a large number of affiliate faculty. Faculty emphasize the cross-cutting, interdisciplinary nature of materials research, which is also reflected by the diverse undergraduate backgrounds of the student body, many of whom do not have undergraduate degrees in materials.

Materials research benefits from major campus facilities, including the Materials Science Center, the Wisconsin Microscopy and Characterization Center, Wisconsin Center for Applied Microelectronics, and the Soft Materials Laboratory. Research is supported by major centers, including the National Science Foundation Materials Research Science and Engineering Center and the Grainger Institute for Engineering.

Materials graduates from Wisconsin find long-term success in careers in private industry, national laboratories, and academia in the US and around the world.

ADMISSIONS

Applicants normally are expected to have a B.S. in the physical sciences or engineering. Undergraduate studies normally would include mathematics through differential equations, at least one year each of general physics and chemistry, a course in physical chemistry or modern physics, and an elementary course in properties of materials. Applicants may be admitted with deficiencies. These must be made up as soon as possible after entering the program.

Admission to the University of Wisconsin–Madison Graduate School (<http://grad.wisc.edu>) is a prerequisite for admission to study materials science. A minimum GPA of 3.0/4.0 is required. Graduate Record Examinations (<http://www.ets.org/gre>) scores on the General Test are required. Admission is highly selective. Most admitted students have an undergraduate GPA above 3.5. Mean GRE scores in the most recent admission cycle were quantitative: 166, verbal: 163, and analytical writing: 3.5. However, full consideration will be given to all students meeting the UW–Madison graduate school requirements. Please use institution code: 1846; no department code is necessary.

Foreign students must submit satisfactory results on the TOEFL (<http://www.ets.org/toefl>) or another acceptable English Language Test. Please use institution code: 1846; no department code is necessary. Information about these exams can be obtained from the Educational Testing Service, Princeton, New Jersey 08540 or Berkeley, California 94704.

Please use the online application (<https://apply.grad.wisc.edu/Account/Login?ReturnUrl=%2f>) to begin your application. To be considered for fellowships, all application materials are due by January 1. If you have questions about the application or admissions process, please do not hesitate to send an email to msaegradadmission@enr.wisc.edu.

The graduate school offers a limited number of application fee grants (waivers of all or part of the application fee) that are available in a few specific circumstances. Further information is available here. (<https://grad.wisc.edu/admissions/feegrants>)

APPLICATION DEADLINES:

Spring semester: October 1

Fall semester. January 1

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

FINANCIAL ASSISTANCE

Please note that most funding is available for Ph.D. students and there is limited resources for M.S. students. International students must prove one year of funding before requesting assistance. Financial assistance is not available for students enrolled in the named option M.S. in Nanomaterials and Nanoengineering (p. 939).

Various types of financial assistance are available for entering graduate students, including research assistantships, teaching assistantships, fellowships and special grants. Decisions regarding financial support are made on the basis of letters of recommendation, grades, GRE general test scores, and, for research assistantships, the matching of the interests or experience of the applicant to the research programs of individual faculty members. January 1 is the deadline for receipt of fellowship applications. Foreign students are generally not eligible for university fellowships. Applications for other types of support are accepted until mid-February.

RESEARCH AND TEACHING ASSISTANTSHIPS

Research assistantships (RAs) are available in any materials science area. These appointments are under the supervision of the major professor directing the research. Students interested in research assistantships in a particular area are encouraged to contact professors whose work is of special interest. The faculty's research interests are given in the Department of Materials Science And Engineering faculty section. An RA permits the most rapid progress toward a degree. Research assistantships in materials science graduate students are comparable to similar stipends from other institutions. Information about stipends can be obtained from the director of graduate studies, dgs@mse.wisc.edu.

Teaching assistantships involve teaching rather than research experience. They pay approximately the same as research assistantships. Teaching experience is especially desirable for students considering an academic career. The Department of Materials Science and Engineering supports a limited number of teaching assistantships, which are allocated after admissions. Applications for teaching assistantship positions for the 2018-2019 academic year are available here (https://docs.google.com/document/d/1-L8U7xhNQ9i-FOJbk0gJA67H8tZzC09qRytlDeGZ_lo/edit).

FELLOWSHIPS

Herb Fellowships in Materials Science are given out each year. The Herb Fellowship is a one-year full-ride fellowship for incoming graduate students. It is intended to provide especially strong students extra flexibility and independence in formulating their graduate research program.

Fellowships supporting graduate education are also offered on a competitive basis by organizations such as the National Science Foundation (<http://www.nsf.gov>), the Hertz Foundation (<http://www.hertzfndn.org>), UW-Madison Graduate School (<http://www.wisc.edu/grad>), the U.S. Department of Defense and a number of industries and foundations. Because some of these fellowships have fall application deadlines, early application is necessary. GRE scores for the General Test are required for fellowship applications.

OTHER FUNDING INFORMATION

If you choose to attend UW-Madison and plan to pursue funding on your own, the following sites could be very helpful:

- Graduate School Funding Resources (<https://grad.wisc.edu/studentfunding/prospective>)
- Graduate School Costs and Funding (<https://grad.wisc.edu/studentfunding/currentstudents>)
- Tuition & Fees (https://registrar.wisc.edu/tuition_&_fees.htm)

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the

advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement	51 credits
Minimum Residence Credit Requirement	32 credits
Minimum Graduate Coursework Requirement	Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle).
Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.
Assessments and Examinations	<p>Students entering without a previous master's degree:</p> <ul style="list-style-type: none"> • Students must pass a qualifying exam in Materials Science and Engineering. The exam must be attempted within 13 months of the start of the student's first semester enrolled. If the first attempt is not passed, a second attempt is required within four months. • Students must pass a preliminary exam / thesis proposal exam. This exam is typically undertaken by the end of the fourth semester enrolled and must be undertaken by the end of the fifth semester. If the first attempt is not passed, a second attempt is required within three months. • Students must prepare a doctoral dissertation, present it in a public seminar, defend it in closed examination by their doctoral committee, and deposit it with the Graduate School. <p>Students entering with a master's degree:</p> <ul style="list-style-type: none"> • Students on this track must pass the qualifying exam, thesis proposal exam, and thesis defense as described above, on the same schedule with respect to their matriculation date. Students who fail one of these exams will have the opportunity to earn a terminal Master's degree in M S & E, even if they have been granted a course substitution.
Language Requirements	None.

Doctoral Minor/Breadth Requirements	All doctoral students are required to complete a minor. If students choose a distributed minor (Option B), they must select a topic or theme and three courses around that theme. At least one course must be graduate level. There are no other restrictions on the course department or topic.
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REQUIRED COURSES

Courses for Students Starting from a Bachelor's Degree and Enrolling Directly in the Ph.D. Program

The Graduate School requires that a Ph.D. student earn at least 51 total credits, at least half of which must be at the graduate level. Thus, M S & E graduate students are required to take at least 25 additional credits of research study (51 credits - 24 course credits - 2 credits for M S & E 900 Materials Research Seminar) beyond the required lecture or laboratory courses. These credits may be research credits, additional courses, or a combination of both. For research credits, students should register for the following courses:

1. Before earning the Master's degree, students should register for M S & E 790 Master's Research or Thesis.
2. After earning the Master's degree, they should register for M S & E 890 Pre-Dissertator's Research.
3. Once they have achieved dissertator status, they should register for M S & E 990 Research and Thesis.

All course requirements are subject to modification or substitution to better serve the research needs of the student. To request a change, submit a letter to the department graduate secretary signed by the student and advisor proposing a change and explaining how the change will better suit the student's needs, especially as it pertains to their research. Course substitutions and other curriculum variances are decided by the department's director of graduate studies, subject to appeal to the department's Graduate Governance Committee and the grievance procedure.

Code	Title	Credits
M S & E 900	Materials Research Seminar ¹	1
M S & E 530	Thermodynamics of Solids ²	3
M S & E 551	Structure of Materials ²	3
M S & E 521	Advanced Polymeric Materials ²	3
E P/E M A 547	Engineering Analysis I ²	3
CBE 660	Intermediate Problems in Chemical Engineering ²	3
MATH 703	Methods of Applied Mathematics 1 ²	3
MATH 704	Methods of Applied Mathematics-2 ²	3
PHYSICS 721	Theoretical Physics-Electrodynamics ²	3
M S & E 752	Advanced Materials Science: Phase Transformations ²	3

Select two materials electives³

- ¹ Take two semesters.
- ² Take three materials core courses, chosen from these options.
- ³ Electives must be selected from the list of Material's Elective Courses.

Material's Elective Courses

Code	Title	Credits
M S & E 401	Special Topics in Materials Science and Engineering	1-3
M S & E/CHEM 421	Polymeric Materials	3
M S & E/N E 423	Nuclear Engineering Materials	3
M S & E/N E 433	Principles of Corrosion	3
M S & E 434	Introduction to Thin-Film Deposition Processes	3
M S & E/M E 435	Joining of Materials: Structural, Electronic, Bio and Nano Materials	3
M S & E 441	Deformation of Solids	3
M S & E 445		3
M S & E 448	Crystallography and X-Ray Diffraction	3
M S & E 451	Introduction to Ceramic Materials	3
M S & E 456	Electronic, Optical, and Magnetic Properties of Materials	3
M S & E 461	Advanced Metal Casting	3
M S & E/M E 462	Welding Metallurgy	3
M S & E 463	Materials for Elevated Temperature Service	3
M S & E 465	Fundamentals of Heat Treatment	3
M S & E 521	Advanced Polymeric Materials	3
M S & E 530	Thermodynamics of Solids	3
M S & E/E M A 541	Heterogeneous and Multiphase Materials	3
M S & E 551	Structure of Materials	3
M S & E 553	Nanomaterials & Nanotechnology	3
M S & E 560	Fundamentals of Atomistic Modeling	3
M S & E 570	Properties of Solid Surfaces	3
M S & E 748	Structural Analysis of Materials	3
M S & E 750	Imperfections and Mechanical Properties	3
M S & E 752	Advanced Materials Science: Phase Transformations	3
M S & E 756	Structure and Properties of Advanced Electronic Materials	3
M S & E 760	Molecular Dynamics and Monte Carlo Simulations in Materials Science	3
M S & E 803	Special Topics in Materials Science	1-3
B M E/PHM SCI 430	Biological Interactions with Materials	3
B M E/M E 615	Tissue Mechanics	3
BIOCHEM/CHEM 704	Chemical Biology	2
CBE 540	Polymer Science and Technology	3
CBE 747	Advanced Colloid and Interface Science	3
CHEM 652	Chemistry of Inorganic Materials	3
CHEM 653	Chemistry of Nanoscale Materials	3
CHEM 621	Instrumental Analysis	3-4
CHEM 654	Materials Chemistry of Polymers	2-3

CHEM 664	Physical Chemistry of Macromolecules	2-3
E C E 745	Solid State Electronics	3
GEOSCI 765	Crystal Chemistry	3
PHYSICS 415	Thermal Physics	3
PHYSICS 551	Solid State Physics	3
PHYSICS 715	Statistical Mechanics	3
PHYSICS 751	Advanced Solid State Physics	3

Additionally, the student's research advisor must sign a form available from the department graduate secretary approving the five courses taken to fulfill the materials core and materials electives requirements.

Courses for Students Starting from a Master's Degree and Enrolling Directly in the Ph.D. Program

These requirements cover students who (1) have already earned a master's degree in M S & E or a related field and (2) do not wish to earn an M S & E master's from UW.

Students must enroll in the introductory seminar, M S & E 900 Materials Research Seminar, for their first two semesters of enrollment.

Students must satisfy all of the course requirements for the Ph.D. given in the preceding section. However, they may request that courses taken as part of a previous master's degree at another institution serve to satisfy a portion of the requirements. Students will have one month after matriculation to identify that they wish to follow this track to their Ph.D. and to submit all their course substitution requests. Course substitutions will not be considered later in the student's Ph.D. studies.

To make such a request, the student should submit a request to the department graduate secretary describing (1) the course from a previous institution; (2) the UW course equivalent; (3) the M S & E course requirement that will be satisfied. The request must include sufficient information to determine if the courses are equivalent. Typically, a syllabus listing the course textbook and lecture topics is sufficient. A course catalog description is typically insufficient. Courses taken while enrolled as an undergraduate student at another institution will not be considered for substitution. This includes courses at the graduate level taken while the student is enrolled as an undergraduate.

If a request is not approved, the student must fulfill the corresponding requirement at the University of Wisconsin–Madison.

If one or more course substitutions are accepted, the student will not earn a master's degree in Materials Science and Engineering from UW–Madison as part of their Ph.D. studies.

POLICIES**GRADUATE SCHOOL POLICIES**

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (https://www.engr.wisc.edu/app/uploads/2016/01/MSE-Graduate-Curriculum-adopted-01_26_16-corrected-7-12-17.pdf) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count graduate coursework from other institutions toward the minimum graduate degree credit requirement and the minimum graduate coursework (50%) requirement. No credits from other institutions can be counted toward the minimum graduate residence credit requirement. For additional requirements, consult the program.

UW–Madison Undergraduate

With program approval, students are allowed to count up to 7 credits numbered 300 or above toward the minimum graduate degree credit requirement when taken in excess of the undergraduate degree requirements; if that coursework is numbered 700 or above it may be used to satisfy the minimum graduate coursework (50%) requirement. No credits can be counted toward the minimum graduate residence credit requirement.

UW–Madison University Special

Typically, no UW-Madison University Special student credits may be counted toward graduate program requirements. However, with program approval, students are allowed to count up to 15 credits of coursework numbered 300 or above taken as a UW–Madison Special student toward the minimum graduate residence credit requirement, and the minimum graduate degree credit requirement; if that coursework is numbered 700 or above it may satisfy the minimum graduate coursework (50%) requirement.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies. An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

Students without a researcher advisor at the end of their first year enrolled are in danger of failing to make adequate progress towards their degree. Students can be suspended from the Graduate School if they do not have an advisor.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

The Ph.D. is typically completed within six years. A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

n/a

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PROGRAM RESOURCES

Find information about professional development from the College of Engineering at the following webpage: <https://epd.wisc.edu/>.

LEARNING OUTCOMES

1. Demonstrate an ability to synthesize knowledge from a subset of the biological, physical, and social sciences to help frame problems critical to the future of their discipline.
2. Conduct original research.
3. Demonstrate an ability to create new knowledge and communicate it to their peers.
4. Fosters ethical and professional conduct.

PEOPLE

FACULTY:

Professors:

Mike Arnold, Sue Babcock, Chang-Beom Eom, Paul Evans, Padma Gopalan, Sindo Kou, Max Lagally, Rod Lakes, Dane Morgan, John Perepezko, Ian Robertson, Don Stone, Izabela Szlufarska, Paul Voyles, and Xudong Wang.

Assistant Professors:

Jason Kawasaki and Jamian Hu.

AFFILIATE FACULTY:

Nicholas Abbott, Todd Allen, Randolph Ashton, David Beebe, John Booske, Dan Botez, Weibo Cai, Naomi Chesler, Susan Coppersmith, Adrien Couet, Steven Cramer, Wendy Crone, Walter Drugan, Mark Eriksson, Melih Eriten, Pupa Gilbert, Randall Goldsmith, Shaoqin Sarah Gong, Sundaram Gunasekaran, Robert Hamers, William Hitchon, Hongrui Jiang, Song Jin, Mikhail Kats, Patricia Keely, Daniel Klingenberg, Irena Knezevic, Tom Kuech, Wang-ju Li, David Lynn, Zhenqiang Jack Ma, Kristyn Masters, Luke Mawst, Robert McDermott, William Murphy, Dan Negrut, Marshall Onellion, Tim Osswald, Sean Palecek, Frank Pfefferkorn, Heidi-Lynn Ploeg, Jess Reed, Mark Rzchowski, Majid Sarmadi, J. Leon Shohet, Kumar Sridharan, Darryl Thelen, Lih-sheng Turng, Daniel van der Weide, Ray Vanderby, Douglas Weibel, Amy Wendt, Justin Williams, Michael Winokur, Huifang Xu, Zongfu Yu

MATERIALS SCIENCE, M.S.

Admissions to the Materials Science M.S. have been suspended as of spring 2016 and will be discontinued as of fall 2019. If you have any questions, please contact the department (msadept@engr.wisc.edu).

OVERVIEW

Society's demand for a rapid and diverse succession of new, specialized materials requires a flexible and interdisciplinary approach to materials research and education. In the past, specialized materials were developed through a trial-and-error process. Today, the tools and expertise of scientists are being combined with those of engineers resulting in productive cooperation in both applied and theoretical areas.

Our search for new materials and the need to make better use of old ones continues to broaden the field of materials science. Creating the next generation of advanced materials—polymers, ceramics, metals, semiconductors or biomaterials—and advanced devices—such as lasers, micromotors, nanoscale technology or engineered tissues—requires a mastery of materials and interfaces with atomic to macroscopic level understanding. This is the challenging and exciting domain of materials science.

The Materials Science Program at UW–Madison is nationally recognized and is committed to providing leadership in research, education and outreach services. Graduate studies in our program at UW–Madison can lead to the M.S. and Ph.D. degrees in materials science.

The Materials Science Program provides excellent opportunities for interdisciplinary research through its faculty advisory committee made up of many faculty from departments throughout the UW–Madison campus. Represented in the MSP are virtually all of the engineering departments, as well as chemistry, physics, geology, human ecology, biological systems engineering, as well as several of the biological and medical sciences. Graduate students select their thesis research topics based on materials and interfaces that involve polymers, superconductors, semiconductors, advanced metals, composites, biological materials, or ceramics. Degree requirements are extremely flexible, permitting the student and advisors to formulate an educational plan that is optimal for the student's educational and professional objectives.

The Materials Science Center (MSC) has state-of-the-art electron microscopes, X-ray diffractometers, atomic force microscopes, surface analysis equipment, and advanced light microscopes available for

hands-on use by materials science students. Augmenting the Center's capabilities is an impressive array of dedicated campus facilities, including the Synchrotron Radiation Center, and the Wisconsin Center for Applied Microelectronics. Kurt F. Wendt Library houses a comprehensive collection of reference material in engineering and the physical sciences. The MSC and MSP offices are located on the engineering campus, near Union South, a student center with a snack bar, cafeteria, and social, game, and activity areas.

A weekly seminar program provides students with an opportunity to hear and meet outstanding materials scientists and engineers from around the world.

Research assistantships generally are available to qualified applicants. Opportunities to obtain teaching assistantships are available directly with the departments of our faculty and not through the Materials Science Program office. Exceptionally well-qualified applicants are eligible for graduate fellowships.

ADMISSIONS

Admissions to the Materials Science M.S. have been suspended as of spring 2016 and will be discontinued as of fall 2019. If you have any questions, please contact the department (msadept@engr.wisc.edu).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules.

Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Contact the program for information on required assessments and examinations.

Language Requirements Contact the program for information on any language requirements.

REQUIRED COURSES

A minimum of five classroom courses consisting of at least 14 credits. The following additional requirements and restrictions apply to these five courses:

- At least three courses consisting of at least eight credits must be at or above the 600 level. Students can petition for exceptions for other courses that must not be generally regarded as part of undergraduate curricula. (Examples of exceptions: M S & E 530 Thermodynamics of Solids, M S & E 570 Properties of Solid Surfaces, M S & E 445, CBE 540 Polymer Science and Technology, CBE/E C E/M S & E 544 Processing of Electronic Materials. Others possible by petition.)
- The courses must span two or more Departments, meeting the objective of an interdisciplinary education in materials.
- M S & E 900 Materials Research Seminar may not be used to satisfy any aspect of this requirement.

Two semesters of M S & E 900 Materials Research Seminar, which must be taken in the first and second semester of enrollment if it does not conflict with other requirements.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count up to two graduate courses from other institutions toward the minimum graduate degree credit requirement and the minimum graduate coursework (50%) requirement. No credits from other institutions can be counted toward the minimum graduate residence credit requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

When rigorous and consistent with expectations of graduate work, up to 7 credits numbered 300 and above may be counted toward the minimum graduate degree credit requirement; if those courses are numbered 700 or above, they may be counted toward the minimum graduate coursework (50%) requirement. No credits can be counted toward the minimum graduate residence credit requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison University Special

With program approval and payment of the difference in tuition (between Special and graduate tuition), students are allowed to count up to 15 credits of coursework taken as a UW–Madison Special student numbered 300 or above toward the minimum graduate residence credit requirement and the minimum graduate degree credit requirement; if the coursework is numbered 700 or above, it may count toward the minimum graduate coursework (50%) requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

n/a

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PEOPLE

Faculty: Professor Vanderby (director) (BME/Ortho); Associate Professor Stone (associate director) (Materials Science and Engineering); Professors Abbott (Chemical and Biological Engineering), Anderson (Civil and Environmental Engineering), Babcock (Materials Science and Engineering), Beebe (Biomedical Engineering), Blick (Electrical and Computer Engineering), Booske (Electrical and Computer Engineering), Botez (Electrical and Computer Engineering), Coppersmith (Physics), Cramer (Civil and Environmental Engineering), Drugan (Engineering Physics), Eom (Materials Science and Engineering), Eriksson (Physics), Giacomini (Mechanical Engineering), Gilbert (Physics), Hamers (Chemistry), Hitchon (Electrical and Computer Engineering), Keely (Cell and Regenerative Biology), Klingenberg (Chemical and Biological Engineering), Kou (Materials Science and Engineering), Kuech (Chemical and Biological Engineering), Lagally (Materials Science and Engineering), Lakes (Engineering Physics/Biomedical Engineering), Martin (Mechanical Engineering), Mawst (Electrical and Computer Engineering), McCaughan (Electrical and Computer Engineering), Nealey (Chemical and Biological Engineering), Onellion (Physics), Osswald (Mechanical Engineering), Perepezko (Materials Science and Engineering), Rowlands (Mechanical Engineering), Sarmadi (Human Ecology), Shohet (Electrical and Computer Engineering), Tikoff (Geology and Geophysics), Turng (Mechanical

Engineering), Vanderweide (Electrical and Computer Engineering), Wendt (Electrical and Computer Engineering), Winokur (Physics), Wong (Bacteriology); Associate Professors Allen (Engineering Physics), Block (Medical Physics), Chesler (Biomedical Engineering), Crone (Engineering Physics), Evans (Materials Science and Engineering), Gopalan (Materials Science and Engineering), Gong (Biomedical Engineering), Jiang (Electrical and Computer Engineering), Jin (Chemistry), Li (Mechanical Engineering), Lynn (Chemical and Biological Engineering), Ma (Electrical and Computer Engineering), Masters (Biomedical Engineering), Morgan (Materials Science and Engineering), Murphy (Biomedical Engineering), Negrut (Mechanical Engineering), Palecek (Chemical and Biological Engineering), Pfeifferkorn (Mechanical Engineering), Ploeg (Mechanical Engineering), Root (Chemical and Biological Engineering), Rzchowski (Physics); Szlufarska (Materials Science and Engineering), Thelen (Mechanical Engineering), Voyles (Materials Science and Engineering), Williams (Biomedical Engineering), Xu (Geology and Geophysics); Assistant Professors Arnold (Materials Science and Engineering), Cai (Radiology/Medical Physics), Li (BME/Ortho), Mahanthappa (Chemistry), McDermott (Physics), Ogle (Biomedical Engineering), Sheinis (Astronomy), Wang (Materials Science and Engineering), Weibel (Biochemistry)

MATERIALS SCIENCE, PH.D.

Admissions to the Materials Science Ph.D. have been suspended as of spring 2016 and will be discontinued as of fall 2019. If you have any questions, please contact the department (msaedept@engr.wisc.edu).

Society's demand for a rapid and diverse succession of new, specialized materials requires a flexible and interdisciplinary approach to materials research and education. In the past, specialized materials were developed through a trial-and-error process. Today, the tools and expertise of scientists are being combined with those of engineers resulting in productive cooperation in both applied and theoretical areas.

Our search for new materials and the need to make better use of old ones continues to broaden the field of materials science. Creating the next generation of advanced materials—polymers, ceramics, metals, semiconductors or biomaterials—and advanced devices—such as lasers, micromotors, nanoscale technology or engineered tissues—requires a mastery of materials and interfaces with atomic to macroscopic level understanding. This is the challenging and exciting domain of materials science.

The Materials Science Program at UW–Madison is nationally recognized and is committed to providing leadership in research, education and outreach services. Graduate studies in our program at UW–Madison can lead to the M.S. and Ph.D. degrees in materials science.

The Materials Science Program provides excellent opportunities for interdisciplinary research through its faculty advisory committee made up of many faculty from departments throughout the UW–Madison campus. Represented in the MSP are virtually all of the engineering departments, as well as chemistry, physics, geology, human ecology, biological systems engineering, as well as several of the biological and medical sciences. Graduate students select their thesis research topics based on materials and interfaces that involve polymers, superconductors, semiconductors, advanced metals, composites, biological materials, or ceramics. Degree requirements are extremely flexible, permitting the student and advisors to formulate an educational

plan that is optimal for the student's educational and professional objectives.

The Materials Science Center (MSC) has state-of-the-art electron microscopes, X-ray diffractometers, atomic force microscopes, surface analysis equipment, and advanced light microscopes available for hands-on use by materials science students. Augmenting the Center's capabilities is an impressive array of dedicated campus facilities, including the Synchrotron Radiation Center, and the Wisconsin Center for Applied Microelectronics. Kurt F. Wendt Library houses a comprehensive collection of reference material in engineering and the physical sciences. The MSC and MSP offices are located on the engineering campus, near Union South, a student center with a snack bar, cafeteria, and social, game, and activity areas.

A weekly seminar program provides students with an opportunity to hear and meet outstanding materials scientists and engineers from around the world.

Research assistantships generally are available to qualified applicants. Opportunities to obtain teaching assistantships are available directly with the departments of our faculty and not through the Materials Science Program office. Exceptionally well-qualified applicants are eligible for graduate fellowships.

ADMISSIONS

Admissions to the Materials Science Ph.D. have been suspended as of spring 2016 and will be discontinued as of fall 2019. If you have any questions, please contact the department (msaedpt@engr.wisc.edu).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses

and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules.

Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum 51 credits
Credit Requirement

Minimum 32 credits
Residence Credit Requirement

Minimum Graduate Coursework Requirement Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Doctoral students are required to take a comprehensive preliminary/oral examination after they have cleared their record of all Incomplete and Progress grades (other than research and thesis). Deposit of the doctoral dissertation in the Graduate School is required.

Language Requirements Contact the program for information on any language requirements.

Doctoral Minor/Breadth Requirements All doctoral students are required to complete a minor.

REQUIRED COURSES

A minimum of 10 classroom courses consisting of at least 28 credits. The following additional requirements and restrictions apply to these 10 courses:

- At least one course (3 or more credits) must be in mathematical analysis techniques or emphasizing its application (choose from CBE 660 Intermediate Problems in Chemical Engineering, MATH 703

Methods of Applied Mathematics 1, MATH 704 Methods of Applied Mathematics-2, or PHYSICS 721 Theoretical Physics-Electrodynamics. Others possible by petition).

- At least five courses consisting of at least 14 credits must be at or above the 600 level. Students can petition for exceptions for other courses that must not be generally regarded as part of undergraduate curricula (examples of exceptions: M S & E 530 Thermodynamics of Solids, M S & E 570 Properties of Solid Surfaces, m s & e 445 , CBE 540 Polymer Science and Technology, CBE/E C E/M S & E 544 Processing of Electronic Materials. Others possible by petition).
- M S & E 900 Materials Research Seminar may not be used to satisfy any aspect of this requirement.
- The courses must span two or more Departments, meeting the objective of an interdisciplinary education in materials.

Two semester of M S & E 900 Materials Research Seminar, which must be taken in the first and second semester of enrollment if it does not conflict with other requirements.

Within the first year, each student must select and declare to the MSP office three core courses that are fundamental to their research specialization. These courses must be approved by the student's MSP advisor. In the RRE exam, the student will be examined orally on these subjects in addition to questions on their research presentation.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count up to two graduate courses from other institutions toward the minimum graduate degree credit requirement and the minimum graduate coursework (50%) requirement. No credits from other institutions can be counted toward the minimum graduate residence credit requirement. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW-Madison Undergraduate

When rigorous and consistent with expectations of graduate work, up to 7 credits numbered 300 and above may be counted toward the minimum graduate degree credit requirement; if those courses are numbered 700 or above, they may be counted toward the minimum graduate coursework (50%) requirement. No credits can be counted toward the minimum graduate residence credit requirement. Coursework

earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements

UW-Madison University Special

With program approval and payment of the difference in tuition (between Special and graduate tuition), students are allowed to count up to 15 credits of coursework taken as a UW-Madison Special student numbered 300 or above toward the minimum graduate residence credit requirement, and the minimum graduate degree credit requirement; if the coursework is numbered 700 or above, it may count toward the minimum graduate coursework (50%) requirement. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies. An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor.

To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

OTHER

n/a

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PEOPLE

Faculty: Professor Vanderby (director) (BME/Ortho); Associate Professor Stone (associate director) (Materials Science and Engineering); Professors Abbott (Chemical and Biological Engineering), Anderson (Civil and Environmental Engineering), Babcock (Materials Science and Engineering), Beebe (Biomedical Engineering), Blick (Electrical and Computer Engineering), Booske (Electrical and Computer Engineering), Botez (Electrical and Computer Engineering), Coppersmith (Physics), Cramer (Civil and Environmental Engineering), Drugan (Engineering Physics), Eom (Materials Science and Engineering), Eriksson (Physics), Giacomini (Mechanical Engineering), Gilbert (Physics), Hamers (Chemistry), Hitchon (Electrical and Computer Engineering), Keely (Cell and Regenerative Biology), Klingenberg (Chemical and Biological Engineering), Kou (Materials Science and Engineering), Kuech (Chemical and Biological Engineering), Lagally (Materials Science and Engineering), Lakes (Engineering Physics/Biomedical Engineering), Martin (Mechanical Engineering), Mawst (Electrical and Computer Engineering), McCaughan (Electrical and Computer Engineering), Nealey (Chemical and Biological Engineering), Onellion (Physics), Osswald (Mechanical Engineering), Perepezko (Materials Science and Engineering), Rowlands (Mechanical Engineering), Sarmadi (Human Ecology), Shohet (Electrical and Computer Engineering), Tikoff (Geology and Geophysics), Turng (Mechanical Engineering), Vanderweide (Electrical and Computer Engineering), Wendt (Electrical and Computer Engineering), Winokur (Physics), Wong (Bacteriology); Associate Professors Allen (Engineering Physics), Block (Medical Physics), Chesler (Biomedical Engineering), Crone (Engineering Physics), Evans (Materials Science and Engineering), Gopalan (Materials Science and Engineering), Gong (Biomedical Engineering), Jiang (Electrical and Computer Engineering), Jin (Chemistry), Li (Mechanical Engineering), Lynn (Chemical and Biological Engineering), Ma (Electrical and Computer Engineering), Masters (Biomedical Engineering), Morgan (Materials Science and Engineering), Murphy (Biomedical Engineering), Negrut (Mechanical Engineering), Palecek (Chemical and Biological Engineering), Pfefferkorn (Mechanical Engineering), Ploeg (Mechanical Engineering), Root (Chemical and Biological Engineering), Rzechowski (Physics); Szlufarska (Materials Science and Engineering), Thelen (Mechanical Engineering), Voyles (Materials Science and Engineering), Williams (Biomedical Engineering), Xu (Geology and Geophysics); Assistant Professors Arnold (Materials Science and Engineering), Cai (Radiology/Medical Physics), Li (BME/Ortho), Mahanthappa (Chemistry), McDermott (Physics), Ogle (Biomedical Engineering), Sheinis (Astronomy), Wang (Materials Science and Engineering), Weibel (Biochemistry)

MATHEMATICS

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Mathematics, Doctoral Minor (p. 952)
- Mathematics, M.A. (p. 953)
- Mathematics, Ph.D. (p. 957)

PEOPLE

Faculty: Professors Anderson, Angenent, Arinkin, Assadi, Bolotin, Boston, Căldăraru, Craciun, Denissov, Ellenberg, Feldman, Gong, Jin, Lempp, Mari Beffa (chair), Maxim, Miller, Mitchell, Paul, Roch, Seeger, Seppäläinen, Smith, Terwilliger, Thiffeault, Valko, Waleffe, M. Wood, Yang; Associate Professors Dymarz, Gurevich, Kent, Stechmann, Street, Yin; Assistant Professors Andrews, Erman, Ifrim, Kim, Li, Marshall, Sam, Soskova, Spagnolie, Stovall, Tran, Bi. Wang, Bo. Wang, L. Wang, P. Wood; Affiliate Faculty Bach, Cai, Del Pia, Ferris, Ron, Sifakis.

MATHEMATICS, DOCTORAL MINOR

REQUIREMENTS

I. THE MATH DEPARTMENT MINOR REQUIREMENTS

The general requirements for a minor are stated in the Guide. Listed here are the requirements for a mathematics minor under Option A.

1. A math minor consists of at least 12 graduate credits in mathematics courses (<http://guide.wisc.edu/courses/math>) that are approved by a math minor advisor. These courses must be taken as a graduate student. All courses must be completed with a grade of B or better. Graduate mathematics credits transferred from another university may be considered but prior approval by the math minor advisor is necessary.
2. At least 6 credits must be in math courses at the 700 level or above.
3. At most one course cross-listed with the major department may be used for the math minor. This course must be staffed by the mathematics department and it may not be applied to any requirement for the major department.
4. According to rules of the Graduate School, graduate credit can be given only for courses above 300. The math department has a more restrictive policy; it typically does not consider math courses below 500 as graduate courses. Hence, credit for math classes below 500 will not be counted for the doctoral minor in mathematics.

II. THE PROCESS

1. Students should plan which courses they would like to use to meet the minor requirements. They can use this form (<https://go.wisc.edu/d3i695>) for planning the coursework. Students and the math minor advisor (<http://www.math.wisc.edu/contactus/#gradminor>) complete this form and students keep a copy of it. (Students can print a copy

of the form and fill in some parts before the meeting.) Completion of the planning form is not required, but a completed form, signed by a math minor advisor, does offer a guarantee that the math department will accept the courses for a minor. The course program for a math minor must be approved by a math minor advisor at some point, but this approval could also be obtained after the courses have been taken.

2. Students will need a form signed by a math minor advisor certifying approval of their course selection for the math minor, and/or certifying completion of the minor requirements. The department may have forms for these purposes, or students can use a Math Department Minor Agreement Form (http://atrium.math.wisc.edu/sites/default/files/graduate_minor_in_mathematics_form.pdf).

3. When everything is completed, students need to have the Graduate School warrant signed. The major department will request a warrant from the Graduate School. Students take the warrant to one of the math minor advisors for a signature and then take it back to the major department.

PEOPLE

Faculty: Professors Anderson, Angenent, Arinkin, Assadi, Bolotin, Boston, Căldăraru, Craciun, Denissov, Ellenberg, Feldman, Gong, Jin, Lempp, Mari Beffa (chair), Maxim, Miller, Mitchell, Paul, Roch, Seeger, Seppäläinen, Smith, Terwilliger, Thiffeault, Valko, Waleffe, M. Wood, Yang; Associate Professors Dymarz, Gurevich, Kent, Stechmann, Street, Yin; Assistant Professors Andrews, Erman, Ifrim, Kim, Li, Marshall, Sam, Soskova, Spagnolie, Stovall, Tran, Bi. Wang, Bo. Wang, L. Wang, P. Wood; Affiliate Faculty Bach, Cai, Del Pia, Ferris, Ron, Sifakis.

MATHEMATICS, M.A.

Ph.D. students in the math department and students enrolled in other UW Ph.D. programs are eligible to earn an M.A. degree in Mathematics.

The M.A. degree is available with the named option titled Foundations of Advanced Studies (FAS) (p. 955). It is designed to strengthen the student's mathematics background and enhance the opportunities for applications to Ph.D. programs and for employment as a mathematician in nonacademic environments.

ADMISSIONS

The M.A. (no named option) is offered for work leading to the Ph.D. Students may not apply directly for the master's, and should instead see the admissions information for the Ph.D (p. 957).

Students may also apply to the M.A. Named Option in Foundations of Advanced Studies (p. 955).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum 30 credits

Credit Requirement

Minimum 16 credits

Residence Credit Requirement

Minimum Graduate Coursework Requirement The coursework must consist of graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall 3.00 GPA required.

Graduate GPA Requirement

Other Grade Requirements At least 12 credits from a specified list of 700 courses are required to be passed with grade B or higher.

Assessments and Examinations None.

Language Requirements No language requirements.

REQUIRED COURSES

Code	Title	Credits
(i) Core Courses: ¹		12
<i>Select four of the following:</i>		
MATH 703	Methods of Applied Mathematics 1	
MATH 704	Methods of Applied Mathematics-2	
MATH/ COMP SCI 714	Methods of Computational Mathematics I	
MATH/ COMP SCI 715	Methods of Computational Mathematics II	
MATH 721	A First Course in Real Analysis	
MATH 722	Complex Analysis	
MATH 725	A Second Course in Real Analysis	
MATH/STAT 733	Theory of Probability I	
MATH/STAT 734	Theory of Probability II	
MATH 741	Abstract Algebra	
MATH 742	Abstract Algebra	
MATH 751	Introductory Topology I	
MATH 752	Introductory Topology II	
MATH 761	Differentiable Manifolds	
MATH 770	Foundations of Mathematics	
MATH 771	Set Theory	
MATH 773	Computability Theory	
MATH 776	Model Theory	
(ii) Four Mathematics courses at 600 level or above passed with a grade of B or higher ^{1,2}		12
(iii) Electives (500 level or above)		6
(iv) Advanced Computer Science Course:		
Students must complete an advanced computer science course which involves substantial programming. Other courses require prior approval of the director of graduate studies. This requirement is waived for Math Ph.D. students, provided two qualifying exams have been passed.		
COMP SCI 400	Programming III	
COMP SCI 536	Introduction to Programming Languages and Compilers	
COMP SCI 537	Introduction to Operating Systems	
COMP SCI 564	Database Management Systems: Design and Implementation	
COMP SCI 704	Principles of Programming Languages	
COMP SCI/ MATH 714	Methods of Computational Mathematics I	
COMP SCI/ MATH 715	Methods of Computational Mathematics II	
COMP SCI/ I SY E 719	Stochastic Programming	
COMP SCI/I SY E/ MATH 730	Nonlinear Optimization II	

Total Credits

30

¹ Students must pass with a grade of B or higher.

² The graduate advisor may also approve to have courses at the 500 level counted for this requirement (but typically no introductory courses such as MATH 521 Analysis I, MATH 541 Modern Algebra or MATH 551 Elementary Topology).

30 graduate credits related to mathematics, including at least 24 credits in the mathematics department (cross-listed courses included). At least 12 credits from a specified list of 700 core courses must be taken.

NAMED OPTIONS (SUB-MAJORS)

A named option is a formally documented sub-major within an academic major program. Named options appear on the transcript with degree conferral.

- Mathematics: Foundations of Advanced Studies, M.A. (p. 955)

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (https://www.math.wisc.edu/graduate_gsh_toc) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

Students in the M.A. program are allowed to count no more than 14 credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

No more than 7 credits from a UW–Madison undergraduate degree are allowed to count toward the degree. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison University Special

With program approval, students are allowed to count no more than 15 credits of coursework numbered 300 or above taken as a UW–Madison Special student. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could

result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

ADVISOR / COMMITTEE

Students are recommended to meet with an advisor.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Two years. Extensions have to be approved by the program.

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

n/a

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Learn a substantial body of mathematics presented in introductory graduate level courses in mathematics.
2. Select and utilize appropriate methodologies to solve problems.
3. Communicate clearly in written/oral presentations.
4. Recognize and apply principles of ethical and professional conduct.

PEOPLE

Faculty: Professors Anderson, Angenent, Arinkin, Assadi, Bolotin, Boston, Căldăraru, Craciun, Denissov, Ellenberg, Feldman, Gong, Jin, Lempp, Mari Beffa (chair), Maxim, Miller, Mitchell, Paul, Roch, Seeger, Seppäläinen, Smith, Terwilliger, Thiffeault, Valko, Waleffe, M. Wood, Yang; Associate Professors Dymarz, Gurevich, Kent, Stechmann, Street, Yin; Assistant Professors Andrews, Erman, Ifrim, Kim, Li, Marshall, Sam, Soskova,

Spagnolie, Stovall, Tran, Bi. Wang, Bo. Wang, L. Wang, P. Wood; Affiliate Faculty Bach, Cai, Del Pia, Ferris, Ron, Sifakis.

MATHEMATICS: FOUNDATIONS OF ADVANCED STUDIES, M.A.

This is a named option within the Mathematics M.A. It is designed to strengthen the student's mathematics background and enhance the opportunities for applications to Ph.D. programs and for employment as a mathematician in nonacademic environments.

ADMISSIONS

Admission is competitive. Applicants to the Ph.D. program are automatically considered for financial support. For more information about application to the Ph.D. and M.A. programs, see the department's admission website (<https://www.math.wisc.edu/graduate/admissions>).

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

The Department of Mathematics cannot provide financial support for the Master's–Foundations of Advanced Studies Degree program. Students enrolled in this program may not accept University appointments which grant waivers of tuition and/or academic fees, cf. the policy on campus employment.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	Yes

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement The coursework must consist of graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements None.

Assessments and Examinations None.

Language Requirements No language requirements.

REQUIRED COURSES

Code	Title	Credits
Required Courses:		

These courses must be taken by all students, except when it is determined by the director of graduate studies that equivalent courses were taken prior to entering the program.

MATH 522	Analysis II	3
MATH 542	Modern Algebra	3

Basic Electives:

All other 500-level and all 600-level courses in Mathematics may be taken as elective courses. Currently the following courses are available. Select four of the following: 12

MATH/ COMP SCI 513	Numerical Linear Algebra	
MATH/ COMP SCI 514	Numerical Analysis	
MATH 519	Ordinary Differential Equations	
MATH/COMP SCI/ I SY E/STAT 525	Linear Programming Methods	
MATH 531	Probability Theory	
MATH 552	Elementary Geometric and Algebraic Topology	
MATH 561	Differential Geometry	
MATH 567	Elementary Number Theory	
MATH/ PHILOS 571	Mathematical Logic	
MATH 605	Stochastic Methods for Biology	
MATH/B M I/ BIOCHEM/ BMOLCHEM 606	Mathematical Methods for Structural Biology	
MATH 608	Mathematical Methods for Continuum Modeling in Biology	
MATH/B M I/ BIOCHEM/ BMOLCHEM 609	Mathematical Methods for Systems Biology	
MATH 619	Analysis of Partial Differential Equations	
MATH 621	Analysis III	
MATH 623	Complex Analysis	
MATH 627	Introduction to Fourier Analysis	
MATH 629	Introduction to Measure and Integration	
MATH/I SY E/ OTM/STAT 632	Introduction to Stochastic Processes	
MATH 635	An Introduction to Brownian Motion and Stochastic Calculus	
MATH/E C E 641	Introduction to Error-Correcting Codes	

Advanced Electives:

All 700 level courses in Mathematics may be taken as elective courses. Students must pass at least four of the following core graduate courses with a Grade of B or higher. Select four of the following: 12

MATH 703	Methods of Applied Mathematics 1	
MATH 704	Methods of Applied Mathematics-2	
MATH/ COMP SCI 714	Methods of Computational Mathematics I	
MATH/ COMP SCI 715	Methods of Computational Mathematics II	
MATH 721	A First Course in Real Analysis	
MATH 722	Complex Analysis	

MATH 725	A Second Course in Real Analysis
MATH/STAT 733	Theory of Probability I
MATH/STAT 734	Theory of Probability II
MATH 741	Abstract Algebra
MATH 742	Abstract Algebra
MATH 751	Introductory Topology I
MATH 752	Introductory Topology II
MATH 761	Differentiable Manifolds
MATH 770	Foundations of Mathematics
MATH 771	Set Theory
MATH 773	Computability Theory
MATH 776	Model Theory

Total Credits 30

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

ADVISOR / COMMITTEE

Students are recommended to meet with an advisor.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Two years. Extensions have to be approved by the program.

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

The Department of Mathematics cannot provide financial support for the Master's—Foundations of Advanced Studies Degree program. Students enrolled in this program may not accept university appointments which grant waivers of tuition and/or academic fees.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PEOPLE

Faculty: Professors Anderson, Angenent, Arinkin, Assadi, Bolotin, Boston, Căldăraru, Craciun, Denissov, Ellenberg, Feldman, Gong, Jin, Lempp, Mari Beffa (chair), Maxim, Miller, Mitchell, Paul, Roch, Seeger, Seppäläinen, Smith, Terwilliger, Thiffeault, Valko, Waleffe, M. Wood, Yang; Associate Professors Dymarz, Gurevich, Kent, Stechmann, Street, Yin; Assistant Professors Andrews, Erman, Ifrim, Kim, Li, Marshall, Sam, Soskova, Spagnolie, Stovall, Tran, Bi. Wang, Bo. Wang, L. Wang, P. Wood; Affiliate Faculty Bach, Cai, Del Pia, Ferris, Ron, Sifakis.

MATHEMATICS, PH.D.

The department offers the doctor of philosophy degree with a major in mathematics and a master of arts degree in mathematics.

The Ph.D. degree requires proficiency in basic and advanced graduate mathematics and the completion of a dissertation containing a

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

NAMED OPTION-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (https://www.math.wisc.edu/graduate_gsh_toc) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

Students in the M.A. program are allowed to count no more than 14 credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

No more than 7 credits from a UW–Madison undergraduate degree are allowed to count toward the degree. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison University Special

With program approval, students are allowed to count no more than 15 credits of coursework numbered 300 or above taken as a UW–Madison Special student. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

significant piece of original research in some area of mathematics. The scope of the research program in mathematics is broad. The Ph.D. specialty and dissertation may be in any area of mathematics, including but not limited to algebra, algebraic geometry, applied mathematics, combinatorics, computational mathematics, complex analysis, differential equations, differential geometry, dynamical systems, harmonic analysis, logic, mathematical biology, number theory, probability, and topology. A complete list of faculty and their areas of expertise is available through the department website (<https://www.math.wisc.edu/graduate>).

Students in the Ph.D. program also have the option to earn a master of arts degree (p. 953).

ADMISSIONS

Admission is competitive. Applicants to the Ph.D. program are automatically considered for financial support. For more information about application to the Ph.D. and M.A. programs, see the department's admission website (<https://www.math.wisc.edu/graduate/admissions>).

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Prospective students should see the program website for funding information (<https://www.math.wisc.edu/graduate/financialsupport>).

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 54 credits

Minimum Residence Credit Requirement 32 credits

Minimum Graduate Coursework Requirement For students in the Ph.D. program the coursework in the mathematics department is expected to consist only of graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements No additional grade requirements.

Assessments and Examinations All students are required to pass at least one qualifying exam by the beginning of their fourth semester (the spring semester of the second year), and two by the beginning of their sixth semester (the spring semester of the third year.)

Students must satisfy all the requirements for dissertator status by the end of the eighth semester (end of fourth year).

Language Requirements No language requirements.

Doctoral Minor/Breadth Requirements All doctoral students are required to complete a 12-credit minor.

REQUIRED COURSES

Take a total of 54 graduate credits, or generally 18 courses. This includes courses in math and in a minor. In the Ph.D. program, math courses

numbered above 700 are for graduate credit. Math courses below 700 must be approved by the academic advisor.

There are five general and overlapping areas of specialization¹ within the department:

- Algebra, Algebraic Geometry, Combinatorics and Number theory
- Analysis, Differential Equations and Probability
- Applied and Computational Mathematics
- Logic
- Geometry and Topology

There is also a specialty in Mathematics Education¹. The course requirement is the same as for the other specialties except that the required 54 credits should include 18 credits in courses that relate to mathematics education, and at least one of the courses must be on research techniques in education. The 18 credits may come (wholly or in part) from courses included in the minor.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (https://www.math.wisc.edu/graduate_gsh_toc) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students in the Ph.D. program are allowed to count no more than 22 credits of graduate coursework from other institutions. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

No more than 7 credits from a UW–Madison undergraduate degree are allowed to count toward the degree. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison University Special

With program approval, students are allowed to count no more than 15 credits of coursework numbered 300 or above taken as a UW–Madison Special student. Coursework earned ten

years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

ADVISOR / COMMITTEE

Students who are not yet working with a dissertation advisor are required to meet semiannually with their academic advisor. All students must have a dissertation advisor by the end of the sixth semester.

CREDITS PER TERM ALLOWED

15 credits. Minimum of 6/semester, other than dissertators.

TIME CONSTRAINTS

Eight years. Extensions have to be approved by the program.

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

n/a

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Learn a substantial body of mathematics in introductory and research level graduate courses in mathematics.

2. Complete a dissertation under the guidance of an advisor. The dissertation should make an original and substantive contribution to its subject matter.
3. Demonstrate breadth within the learning experiences.
4. Present research in seminar talks, conferences or publications.
5. Communicate complex ideas in a clear and understandable manner.
6. Foster ethical and professional conduct.

PEOPLE

Faculty: Professors Anderson, Angenent, Arinkin, Assadi, Bolotin, Boston, Căldăraru, Craciun, Denissov, Ellenberg, Feldman, Gong, Jin, Lempp, Mari Beffa (chair), Maxim, Miller, Mitchell, Paul, Roch, Seeger, Seppäläinen, Smith, Terwilliger, Thiffeault, Valko, Waleffe, M. Wood, Yang; Associate Professors Dymarz, Gurevich, Kent, Stechmann, Street, Yin; Assistant Professors Andrews, Erman, Ifrim, Kim, Li, Marshall, Sam, Soskova, Spagnolie, Stovall, Tran, Bi. Wang, Bo. Wang, L. Wang, P. Wood; Affiliate Faculty Bach, Cai, Del Pia, Ferris, Ron, Sifakis.

MEAD WITTER SCHOOL OF MUSIC

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Music, Doctoral Minor (p. 960)
- Music, M.A. (p. 966)
- Music, Ph.D. (p. 970)
- Music: Education, M.M. (p. 975)
- Music: Performance, DMA (p. 979)
- Music: Performance, M.M. (p. 992)

PEOPLE

Faculty: Professors Cook (director), Blasius, Calderón, Chisholm, Crook, DiSanza, Dill, Doing, Fischer, Fulmer, Hetzler, Hyer, Johnson, Karp, Koza, Leckrone, Perry, Rowe, Schaffer, Schwendinger, Stowe, Swack, B. Taylor, C. Taylor, Teeple, Thimmig, Vardi, Vallon; Associate Professors Dobbs, Grabois, Wallmann; Assistant Professors Altino, Lee, Ronis

The faculty of the Mead Witter School of Music is a distinguished group of educators, performing musicians, and active scholars. The backgrounds of performance faculty include rich experiences as professional musicians, researchers, recording artists, and entrepreneurs. Faculty in music education have particular insight into their field as a result of their backgrounds as school educators, performers, and scholars. In areas such as music theory and musicology, the musical community has high regard for the past and current contributions to the study of musical theory, historical perspectives on music, the role of music in societies around the world, and the unique contributions of American musicians. Teaching is a priority for the faculty, who are readily accessible to students for advice and support. Faculty, staff, and students cooperate in extraordinary ways with joint ventures that reach across disciplines both in research or instruction.

MUSIC, DOCTORAL MINOR

REQUIREMENTS

Breadth is a required component of doctoral work at UW–Madison. Coursework taken as part of a minor area of study do not count for requirements in the major program.

Doctoral students who are not music majors, but are seeking to pursue a minor in a music field, are encouraged to contact the Mead Witter School of Music graduate office for further information. The defined programs below are excellent models of minor plans for students from non-music programs.

Course credits taken in a minor plan of study will not satisfy requirements in the major. This is important to consider in planning a minor plan of study, especially for DMA students.

Below are outlines for the minor programs approved for students in Ph.D.–music and DMA programs. Note that most of the plans restrict eligibility for students based upon major specialty. Exceptions to the stated requirements are extremely rare.

TRACKS IN THE MUSIC DOCTORAL MINOR

Brass Instrument Performance Track ¹

This minor plan is not available to students completing a track in horn, trumpet, trombone, euphonium, or tuba performance.

Code	Title	Credits
Minor Performance Instrument		
Enroll in course corresponding to minor performance instrument:		
<i>First semester</i>		4
MUS PERF 417	Advanced Horn	
MUS PERF 419	Advanced Trumpet	
MUS PERF 421	Advanced Trombone	
MUS PERF 423	Advanced Euphonium	
MUS PERF 425	Advanced Tuba	
<i>Second semester</i>		2
MUS PERF 417	Advanced Horn	
MUS PERF 419	Advanced Trumpet	
MUS PERF 421	Advanced Trombone	
MUS PERF 423	Advanced Euphonium	
MUS PERF 425	Advanced Tuba	
AND		
MUS PERF 499	Senior Recital	2
AND		
MUSIC 798	Seminar-Instrumental Literature ²	2
or MUSIC 799	Independent Work	
AND		
Any 2 credits from the following:		2
MUSIC 562	Jazz Ensemble	
MUSIC 565	Advanced Ensemble-Woodwind	
MUSIC 567	Advanced Ensemble-Brass	
MUSIC 570	University Symphony Orchestra	

MUSIC 571	Chamber Orchestra	
MUSIC 573	Contemporary Chamber Ensemble	
MUSIC 574	Wind Ensemble	
Total Credits		12

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

² MUSIC 799 Independent Work is eligible to satisfy this requirement ONLY with prior approval by the minor professor.

Choral Conducting Track ¹

This minor is not available to DMA students completing a track in conducting.

Code	Title	Credits
Minor Plan I		

MUS PERF 532	Advanced Conducting (2 semesters, 3 credits each semester)	
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AND

MUSIC 541 & MUSIC 542	Seminar in Choral Literature and Choral Literature and Performance Practices of Today (4 credits total)	
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AND

2 semesters of participation in choral ensembles:

MUSIC 558	Madrigal Singers	
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MUSIC 577	Chorale	
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MUSIC 578	Concert Choir	
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MUSIC 579	Masters Singers	
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AND

MUS PERF 499	Senior Recital	
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Total Minor Plan I Credits		14
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Minor Plan II

MUS PERF 532	Advanced Conducting (2 semesters, 3 credits each semester)	
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MUSIC 511 or MUSIC 542	Historical Performance Practices Choral Literature and Performance Practices of Today	
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MUS PERF 499	Senior Recital ²	
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Total Minor Plan II Credits		15
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¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

² For the recital the student must be the conductor of the choral ensemble or organization in the performance.

Collaborative Piano Track ¹

This minor is not available to students completing a track in organ performance, piano performance, or piano pedagogy and performance.

Code	Title	Credits
MUS PERF 542	Advanced Accompanying	2
MUS PERF 542	Advanced Accompanying	2

MUSIC 346	Repertoire ²	2
or MUSIC 792	Seminar in Vocal Literature	
MUSIC 796	Seminar in Duo Sonata Literature	3
MUS PERF 499	Senior Recital (as accompanist)	2

AND

2-3 credits from the following: 2-3

MUSIC 466	Diction for Singers	
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MUSIC 513	Survey of Opera	
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MUSIC 557	Opera Workshop	
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MUSIC 569	Advanced Ensemble-String	
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MUSIC 573	Contemporary Chamber Ensemble	
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Total Credits		13-14
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¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

² MUSIC 346 Repertoire topic must be Vocal Literature.

Composition Track ¹

MUSIC 523 Orchestration I or its equivalent is a prerequisite for acceptance to this minor plan of study.

Code	Title	Credits
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Two minor plans are possible. Consult with the minor professor. ²

Minor Plan I

Composition applied study

MUS PERF 447 & MUS PERF 448	Fourth Year Composition and Fourth Year Composition	6
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MUSIC 927	Seminar in Composition	3
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MUSIC 927	Seminar in Composition ³	3
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Minor Plan I Total Credits		12
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Minor Plan II

Composition applied study

MUS PERF 447	Fourth Year Composition	3
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MUS PERF 448	Fourth Year Composition	3
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MUS PERF 447 or MUS PERF 448	Fourth Year Composition ⁴	3
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MUSIC 927	Seminar in Composition	3
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Minor Plan II Total Credits		12
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¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

² In both minor plans, MUSIC 799 Independent Work is available as an option for credit. However The Graduate School allows only 32 credits of Independent Work to count toward minor credits.

³ MUSIC 927 Seminar in Composition may be taken twice (with different topics) or, with approval of the minor professor, MUSIC 799 Independent Work (3 credits) may substitute for one of the courses.

⁴ If necessary, MUSIC 799 Independent Work (3 credits) may substitute for one of the semesters of applied composition study.

Early Music Track¹

Code	Title	Credits
MUSIC 461	Collegium Musicum	3
Any MUSIC PERF course at the 400-level or above focusing on an instrument. or MUSIC 799		1-3
Additional Credits from the following:		
MUSIC 412	Survey of Music in the Renaissance	
MUSIC 413	Survey of Music in the Baroque Era	
MUSIC 511	Historical Performance Practices	
MUSIC 621	Renaissance Polyphony	
MUSIC 622	Baroque Counterpoint	
MUSIC 821	Historical Music Theories 1	
MUSIC 822	Historical Music Theories 2	
MUSIC 921	Current Issues in Musical Thought 1 ²	
MUSIC 927	Seminar in Composition ²	
Any MUSIC PERF course at the 400-level or above focusing on an instrument or MUSIC 799		
Total Credits		12

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

² If approved by minor professor.

Guitar Performance Track¹

This minor is not available to students completing a track in violin, viola, violoncello, string bass, or harp performance.

Code	Title	Credits
MUS PERF 440	Advanced Guitar (2 semesters, 3 credits each semester)	3
MUS PERF 440	Advanced Guitar	3
MUS PERF 499	Senior Recital	2
MUSIC 572 & 572	Advanced Ensemble-Classical Guitar and Advanced Ensemble-Classical Guitar (2 semesters)	2
AND any combination of 2 of the following courses:		2
MUSIC 562	Jazz Ensemble	
MUSIC 569	Advanced Ensemble-String	
MUSIC 573	Contemporary Chamber Ensemble	
MUSIC 799	Independent Work (prior approval of minor professor required)	
Total Credits		12

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Harpichord Performance Track¹

This minor is not available to students completing a track in piano performance, piano performance and pedagogy, or collaborative piano.

Students accepted into this minor plan must have sufficient prior study of harpsichord. An audition is required.

Code	Title	Credits
MUS PERF 402	Advanced Harpsichord	4
MUS PERF 402	Advanced Harpsichord	2
MUSIC 461 & 461	Collegium Musicum and Collegium Musicum ²	2
MUSIC 511 or MUSIC 502	Historical Performance Practices ³ Figured Bass and Basso Continuo	3
MUS PERF 499	Senior Recital	2
Total Credits		13

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

² Two semesters of MUSIC 561 Advanced Ensemble-Piano are required.

³ MUSIC 799 Independent Work may substitute for MUSIC 502 Figured Bass and Basso Continuo, with approval of minor professor.

Historical Musicology Track¹

This minor is not available to students completing an Ethnomusicology track. Students with a minor in historical musicology write a minor field preliminary examination. Course credits in a minor DO NOT count for requirements in the major. A DMA student or Ph.D.–music: music theory student must still meet the major requirements for courses in musicology.

Code	Title	Credits
Three of the following courses (3 credits each) ²		9
MUSIC 411	Survey of Music in the Middle Ages	
MUSIC 412	Survey of Music in the Renaissance	
MUSIC 413	Survey of Music in the Baroque Era	
MUSIC 414	Survey of Music in the Classic Era	
MUSIC 415	Survey of Music in the Romantic Era	
MUSIC 416	Survey of Music in the Twentieth Century	
MUSIC 419	Music in the United States	
MUSIC/AFROAMER 509	Seminar in Afro-American Music History and Criticism	
MUSIC 511	Historical Performance Practices	
MUSIC 513	Survey of Opera	
MUSIC 620	Proseminar in Musicology	
Plus one of the following courses:		3
MUSIC 821	Historical Music Theories 1	
MUSIC 822	Historical Music Theories 2	
MUSIC 911	Seminar in Musicology	
Total Credits		12

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

² MUSIC 799 Independent Work and MUSIC 497 Special Topics in Music are eligible to satisfy this requirement ONLY with prior approval by the minor professor.

Jazz Studies Track ¹

Code	Title	Credits
At least 3 of the following courses are required:		
MUSIC 331	Jazz Improvisation	10
MUSIC 332	Jazz Improvisation	
MUSIC 562	Jazz Ensemble (multiple sections available)	10
MUS PERF 457	Jazz Composition and Arranging	
MUS PERF 458	Jazz Composition and Arranging	2
And also required:		
MUS PERF 499	Senior Recital	2
Total Credits		12

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Music Theory Track ¹

Course credits in a minor DO NOT count for requirements in the major. A DMA student or Ph.D.–music: musicology student must still meet the major requirements for courses in music theory.

Code	Title	Credits
Courses selected from the following, with a maximum of 2 courses at the 600-level: ²		
MUSIC 621	Renaissance Polyphony	2
MUSIC 622	Baroque Counterpoint	
MUSIC 623	Form and Analysis	2
MUSIC 624	Form and Analysis II	
MUSIC 799	Independent Work (approval by the minor professor required)	2
MUSIC 821	Historical Music Theories 1	
MUSIC 822	Historical Music Theories 2	2
MUSIC 823	Schenkerian Analysis	
MUSIC 824	Post-tonal Analysis	2
MUSIC 921	Current Issues in Musical Thought 1	
MUSIC 925	Topics in Music Analysis 1	2
MUSIC 926	Topics in Music Analysis 2	

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

² MUSIC 799 Independent Work and MUSIC 497 Special Topics in Music are eligible to satisfy this requirement ONLY with prior approval by the minor professor.

Organ Performance Track ¹

This minor is not available to students completing a track in piano performance, collaborative piano, or piano performance and pedagogy.

Code	Title	Credits
Organ Applied Study		6

MUS PERF 403	Advanced Organ (2 semesters, 3 credits each semester)	4
Additional Courses in the Major		
MUSIC 591 & MUSIC 346	Organ Literature and Design and Repertoire ²	4
OR		
MUS PERF 561 & MUS PERF 562	Organ Improvisation and Liturgy and Organ Improvisation and Liturgy	2
MUS PERF 499	Senior Recital	
Total Credits		12

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

² MUSIC 346 Repertoire topic must be Organ Repertoire, 2 credits.

Opera Production Track ¹

Code	Title	Credits
MUSIC 497	Special Topics in Music (topic: opera production)	2-3
MUSIC 799	Independent Work (advised by director of opera)	2
Remaining credits from the following courses:		8-9
MUSIC 413	Survey of Music in the Baroque Era	2
MUSIC 414	Survey of Music in the Classic Era	
MUSIC 415	Survey of Music in the Romantic Era	2
MUSIC 416	Survey of Music in the Twentieth Century	
MUSIC 419	Music in the United States	2
MUSIC 511	Historical Performance Practices	
MUSIC 513	Survey of Opera	2
MUSIC 553	Advanced Conducting Seminar	
MUSIC 556	University Opera (in directorial capacity only)	2
MUSIC 623	Form and Analysis (opera and vocal literature topics only)	
MUSIC 624	Form and Analysis II (opera and vocal literature topics only)	2
MUSIC 925	Topics in Music Analysis 1 (opera and vocal literature topics only)	
MUSIC 926	Topics in Music Analysis 2 (opera and vocal literature topics only)	2
Total Credits		12-14

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Opera/Voice Coaching Track ¹

This minor is available only to students in Piano Performance, Piano Performance and Pedagogy, Collaborative Piano, Conducting, or other track with approval of the Voice & Opera faculty. All courses are selected in consultation with the minor professor.

Code	Title	Credits
Required courses:		6-10
MUSIC 467 & MUSIC 468	Language Diction for Singing I and Language Diction for Singing II ²	
MUSIC 556 or MUSIC 497	University Opera ^{4,5} Special Topics in Music	
MUSIC 799	Independent Work ³	
Remaining credits from the following:		
MUS PERF 405	Advanced Voice (audition and voice faculty approval required)	
MUSIC 413	Survey of Music in the Baroque Era	
MUSIC 414	Survey of Music in the Classic Era	
MUSIC 415	Survey of Music in the Romantic Era	
MUSIC 416	Survey of Music in the Twentieth Century	
MUSIC 419	Music in the United States	
MUSIC 497	Special Topics in Music (topic: acting for singers)	
MUSIC 511	Historical Performance Practices	
MUSIC 513	Survey of Opera	
MUSIC 553	Advanced Conducting Seminar	
MUSIC 557	Opera Workshop (two semesters are eligible)	
MUSIC 623	Form and Analysis (opera and vocal literature topics only)	
MUSIC 624	Form and Analysis II (opera and vocal literature topics only)	
MUSIC 792	Seminar in Vocal Literature	
MUSIC 911	Seminar in Musicology (opera and vocal literature topics only)	
MUSIC 925	Topics in Music Analysis 1 (opera and vocal literature topics only)	
MUSIC 926	Topics in Music Analysis 2 (opera and vocal literature topics only)	
Minimum Total Credits		12

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

² With the approval of the minor professor, MUSIC 466 Diction for Singers may be eligible to fulfill this requirement.

³ This course is taken under the supervision of the director of opera.

⁴ Enrollment in MUSIC 556 University Opera should be for 2 credits.

⁵ MUSIC 497 Special Topics in Music is only eligible to fulfill this requirement if the topic is opera production.

Orchestral Conducting Track¹

This minor is not available to DMA students completing a track in conducting.

Code	Title	Credits
12 credits chosen from the following:		
MUS PERF 532	Advanced Conducting (multiple semesters possible)	3

AND remaining credits from the following courses:

Code	Title
MUSIC 346	Repertoire
MUSIC 511	Historical Performance Practices
MUSIC 523	Orchestration I
MUSIC 799	Independent Work (prior approval by minor professor required)

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Piano Pedagogy Track¹

This minor is not available to students completing a track in organ performance, piano performance, or collaborative piano.

Code	Title	Credits
MUS PERF 401	Advanced Piano	4
Additional credits from the following:		
MUSIC 799	Independent Work ²	7
MUSIC 548	Piano Pedagogy II	
MUSIC 551	Class Piano Pedagogy	
MUSIC 560	Practicum in Advanced Studio Teaching-Piano	
MUSIC 751	Seminar in Piano Pedagogy	
DANCE 560	Current Topics in Dance: Workshop (topic: Feldenkrais for the performing musician)	

AND

MUSIC 799	Independent Work (final project)	1
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Total Credits 12

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Piano Performance Track¹

This minor is not available to students completing a track in organ performance, collaborative piano, or piano performance and pedagogy.

Code	Title	Credits
MUS PERF 401	Advanced Piano	4
MUS PERF 401	Advanced Piano	2
MUS PERF 499	Senior Recital	2
AND		
4 credits selected from the following:		
MUSIC 548	Piano Pedagogy II	
MUSIC 551	Class Piano Pedagogy	
MUSIC 560	Practicum in Advanced Studio Teaching-Piano	
MUSIC 561	Advanced Ensemble-Piano	
MUSIC 565	Advanced Ensemble-Woodwind	
MUSIC 567	Advanced Ensemble-Brass	
MUSIC 568	Advanced Ensemble-Percussion	
MUSIC 569	Advanced Ensemble-String	
MUSIC 791	Seminar in Piano Literature	

MUSIC 799	Independent Work (approval by minor professor required)	
Total Credits		12

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

String Instrument Performance Track ¹

This minor is not available to students completing a track in violin, viola, violoncello, string bass, harp, or guitar performance

Code	Title	Credits
1 semester instrumental applied study.		4
Enroll in the course corresponding to the minor instrument:		
MUS PERF 431	Advanced Violin	
MUS PERF 433	Advanced Viola	
MUS PERF 435	Advanced Cello	
MUS PERF 437	Advanced String Bass	
MUS PERF 439	Advanced Harp	
1 semester instrumental applied study.		2
MUS PERF 431	Advanced Violin	
MUS PERF 433	Advanced Viola	
MUS PERF 435	Advanced Cello	
MUS PERF 437	Advanced String Bass	
MUS PERF 439	Advanced Harp	
AND		
MUS PERF 499	Senior Recital	2
One of the following courses:		2
MUSIC 346	Repertoire	
MUSIC 543	Advanced String Pedagogy	
MUSIC 546	String Literature	
MUSIC 799	Independent Work ²	
AND		
Any combination of the following:		2
MUSIC 569	Advanced Ensemble-String	
MUSIC 570	University Symphony Orchestra	
MUSIC 571	Chamber Orchestra	
Total Credits		12

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

² MUSIC 799 Independent Work may only be used to fulfill this requirement if the other course choices in this category are not available.

Wind Conducting Track ¹

This minor is not available to DMA students completing a track in conducting.

Code	Title	Credits
12 credits chosen from the following:		

MUS PERF 532	Advanced Conducting (multiple semesters possible)	3
AND remaining credits from the following courses:		
MUSIC 346	Repertoire	
MUSIC 511	Historical Performance Practices	
MUSIC 523	Orchestration I	
MUSIC 524	Orchestration II	
MUSIC 799	Independent Work (prior approval by minor professor required)	

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Woodwind Instrument Performance Track ¹

This minor is not available to students completing a track in a woodwind instrument.

Code	Title	Credits
1 semester minor instrument applied study:		4
Enroll for the course number that corresponds to the minor instrument.		
MUS PERF 407	Advanced Flute	
MUS PERF 409	Advanced Oboe	
MUS PERF 411	Advanced Clarinet	
MUS PERF 413	Advanced Saxophone	
MUS PERF 415	Advanced Bassoon	
1 semester minor instrument applied study		2
MUS PERF 407	Advanced Flute	
MUS PERF 409	Advanced Oboe	
MUS PERF 411	Advanced Clarinet	
MUS PERF 413	Advanced Saxophone	
MUS PERF 415	Advanced Bassoon	
Recital		
MUS PERF 499	Senior Recital	2
Additional courses selected from the following:		4
MUSIC 562	Jazz Ensemble	
MUSIC 565	Advanced Ensemble-Woodwind	
MUSIC 570	University Symphony Orchestra	
MUSIC 571	Chamber Orchestra	
MUSIC 573	Contemporary Chamber Ensemble	
MUSIC 574	Wind Ensemble	
Total Credits		12

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

PEOPLE

Faculty: Professors Cook (director), Blasius, Calderón, Chisholm, Crook, DiSanza, Dill, Doing, Fischer, Fulmer, Hetzler, Hyer, Johnson, Karp, Koza, Leckrone, Perry, Rowe, Schaffer, Schwendinger, Stowe, Swack, B. Taylor,

C. Taylor, Teeple, Thimmig, Vardi, Vallon; Associate Professors Dobbs, Grabois, Wallmann; Assistant Professors Altino, Lee, Ronis

The faculty of the Mead Witter School of Music is a distinguished group of educators, performing musicians, and active scholars. The backgrounds of performance faculty include rich experiences as professional musicians, researchers, recording artists, and entrepreneurs. Faculty in music education have particular insight into their field as a result of their backgrounds as school educators, performers, and scholars. In areas such as music theory and musicology, the musical community has high regard for the past and current contributions to the study of musical theory, historical perspectives on music, the role of music in societies around the world, and the unique contributions of American musicians. Teaching is a priority for the faculty, who are readily accessible to students for advice and support. Faculty, staff, and students cooperate in extraordinary ways with joint ventures that reach across disciplines both in research or instruction.

MUSIC, M.A.

The mission of the Mead Witter School of Music is:

- to provide a rich, integrated program of undergraduate and graduate education that promotes the highest levels of professional, creative, and scholarly development while challenging students to achieve their greatest potential;
- to cultivate an environment that inspires creativity, stimulates intellectual curiosity, and fosters critical thinking; and
- to serve the university community, the public, and the profession through performance, composition, scholarship, music education, outreach, and engagement.

The Mead Witter School of Music enriches students' educational experience by hosting guest artists and scholars for master classes, recitals, colloquia, seminars, and festivals. Its performing organizations and ensembles perform more than 350 recitals and concerts every year, making a significant contribution to the cultural life of the university and the wider Madison community.

DEGREES AND MAJORS

The master of arts in music is offered with concentrations in the two areas of historical musicology and music theory.

A double master's degree with the Information School is also offered.

Master's degrees require a minimum of 30 credits. Each degree track varies slightly and may impose additional requirements. Details on the degrees are available through the Requirements tab. Contact the Mead Witter School of Music graduate office, gradadmissions@music.wisc.edu, for further information about the M.A. degree.

The M.A.–music degree offers tracks in historical musicology, and music theory. The appropriate faculty area appoints an advisor for each new student the first semester of enrollment. When the time comes for comprehensive examinations in the second year, an examination committee is formed. Upon completing the thesis, the student sits for an oral examination by the examination committee, consisting of members of the area faculty.

A summary of important academic policies are available through the Policies (p. 969) tab. A more complete document, the Mead Witter School of Music Graduate Handbook (<http://www.music.wisc.edu/>

[wp-content/uploads/2014/05/SOM-Graduate-Handbook-Booklet-jrdrev-2.pdf](http://www.music.wisc.edu/wp-content/uploads/2014/05/SOM-Graduate-Handbook-Booklet-jrdrev-2.pdf)), lists all academic policies and procedures in music graduate programs. All students need to be familiar with the Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>).

Mentoring of students is of prime importance to faculty members at Mead Witter School of Music. The faculty advisor and the director of graduate studies both guide the student's course planning. While each faculty member has a unique style of mentoring, every student can be assured of abundant time working closely with more than one mentor in addition to the advisor during the course of a UW–Madison degree program.

FACILITIES

The Mosse Humanities Building, built in 1969, houses most of the music classrooms, rehearsal rooms, faculty studios, and 111 practice rooms. Most recitals and concerts take place in one of three performance spaces: Mills Concert Hall, Morphy Recital Hall, and Eastman Organ Recital Hall. The school's extensive collection of instruments, both common and unusual, is available to both faculty and students. Music Hall with its clock tower, built in 1879, is a campus landmark. Renovated in 1985, it is the home of the opera program. The new Hamel Music Center, scheduled for opening in 2019, will include a concert hall, a recital hall, and a large ensemble rehearsal space.

Memorial Library is the home of the Mills Music Library, which offers extensive research and circulating collections, attractive study space, and personal staff assistance with research. Music materials on campus number over half a million, ranging from scores and sheet music to archival collections and historic audio recordings. Through Mills Music Library and other UW–Madison libraries, students have access to a wide range of online research databases as well as millions of articles, books, and streaming media. All genres of music are represented, with notably strong collections in Americana and ethnic music. Nationally known special collections include the Tams–Witmark Collection, a treasury of early American musical theater materials, and the Wisconsin Music Archives.

The Mead Witter School of Music is a member of the National Association of Schools of Music (NASM), the national accreditation body for schools of music, and was reaccredited in 2014.

ADMISSIONS

Minimum admission requirements of the Graduate School apply to all applicants for graduate study in music. The Mead Witter School of Music has additional requirements. Applicants should have a bachelor's degree in music or equivalent foundational course work as required by each area of study. An undergraduate GPA of 3.0 (on a 4.0 scale, calculated on the last 60 credit hours) is necessary for full admission. M.A. applicants are required to submit Graduate Record Exam (GRE) scores and samples of research writing. The M.A. program involves substantial academic work and requires excellent reading, writing, and speaking skills. Therefore, all international students are required to submit a TOEFL score. See the Mead Witter School of Music graduate admissions website (<http://www.music.wisc.edu/admissions/graduate>) for information on minimum score requirements. The Mead Witter School of Music does **not** waive the TOEFL score requirement for students who have completed a degree at an American university. For details on specific audition requirements and additional application materials, visit the Mead Witter School of Music

graduate admissions website (<http://www.music.wisc.edu/admissions/graduate>).

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

The Mead Witter School of Music also offers teaching and project assistantships in music history, music theory, piano, conducting, voice, and other performance areas. These positions offer tuition remission plus a salary and health care benefits. In addition, the Mead Witter School of Music selects qualified applicants for the University Fellowship and Advanced Opportunity Fellowship. The UW–Madison Office of Student Financial Services assists students in obtaining general grants and loans. All Mead Witter School of Music students who receive funding are required to maintain full-time enrollment status. Many students also take advantage of work-study opportunities on campus, and many are employed part-time in area musical organizations or business entities.

Most M.A. and Ph.D. students are eligible for teaching assistant appointments in the respective area, providing positions are available. All M.A. and Ph.D. students may be considered for a University Fellowship, and qualified applicants may be considered for the Advanced Opportunity Fellowship. Feel free to direct questions about any of these funding opportunities to the Mead Witter School of Music graduate admissions office, gradadmissions.music.wisc.edu.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses

and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules.

Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement	30 credits
Minimum Residence Credit Requirement	16 credits
Minimum Graduate Coursework Requirement	Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (https://registrar.wisc.edu/course-guide/).
Overall Graduate GPA Requirement	3.25 GPA required.

Other Grade Requirements Graduate students at UW–Madison must meet expectations for satisfactory progress toward completion of the degree while enrolled. In School of Music graduate programs, a graduate student must maintain a cumulative grade point average (GPA) of 3.25. Even though grades below B do not count for graduate credit toward the degree, those grades are included in computation of the GPA.

In the first semester in which the cumulative GPA falls below 3.25 the director of graduate studies will notify the student in writing. After a second semester in which the GPA remains below 3.25 the student will be placed on probation for the next semester enrolled. This action suspends all financial aid awards through UW–Madison, though loans and work-study are not affected. Failure to raise the GPA to 3.25 or above in the probation semester results in the student's withdrawal from the Graduate School and from the School of Music program.

To maintain satisfactory progress School of Music students on UW–Madison funding (teaching assistants, project assistants, fellows, and scholarship recipients) must maintain full-time status. A student's satisfactory progress is also in jeopardy should a major project or recital be judged incomplete or deficient. Failure of one or more parts of the comprehensive examinations, preliminary examinations, or final defense is also considered a lapse in satisfactory progress.

Assessments and Examinations In addition to evaluations in individual classes, School of Music programs examine graduate students at defined points in their career.

For master's students, comprehensive examinations measure the candidate's range of musical knowledge in both fields of music history and the major.

Language Requirements All School of Music doctoral programs require proficiency at the intermediate level in at least one foreign language. The Historical Musicology track requires proficiency in German. Foreign language proficiency assures that the student has the tools needed to pursue comprehensive research in the major field. Details on foreign language requirements and ways to fulfill proficiency expectations are outlined in the course lists available through the Requirements tab for each degree. This information is also available in the advising worksheets for each degree major track.

REQUIRED COURSES

Direct any questions about the coursework or required proficiencies to the Mead Witter School of Music graduate admissions office, gradadmissions@music.wisc.edu.

Historical Musicology Track ¹

Code	Title	Credits
Entering students will take a short diagnostic examination in music history during the first week of classes to be used for advising purposes only.		
Coursework in Musicology		9

Choose from the following courses:

MUSIC 411	Survey of Music in the Middle Ages
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MUSIC 412	Survey of Music in the Renaissance	
MUSIC 413	Survey of Music in the Baroque Era	
MUSIC 414	Survey of Music in the Classic Era	
MUSIC 415	Survey of Music in the Romantic Era	
MUSIC 416	Survey of Music in the Twentieth Century	
MUSIC 511	Historical Performance Practices	
MUSIC 513	Survey of Opera	
MUSIC 821	Historical Music Theories 1	
MUSIC 822	Historical Music Theories 2	
Musicology Seminars (two required)		6
MUSIC 911	Seminar in Musicology	
Ethnomusicology—choose from the following:		3
MUSIC/ AFROAMER 400	Music Cultures of the World: Africa, Europe, the Americas	
MUSIC/ FOLKLORE 401	Musical Cultures of the World	
MUSIC/ FOLKLORE 402	Musical Cultures of the World	
MUSIC/ FOLKLORE 404	Music of S.E. Asia: Tradition, Innovation, Politics, and Religion	
MUSIC/ FOLKLORE 515	Proseminar in Ethnomusicology	
Other required courses		
MUSIC 900	Colloquium	0
MUSIC/L I S 619	Music Research Methods and Materials	3

Theory Proficiency

Satisfied by completion of one graduate-level course taught by music theory faculty. Theory credits may count toward electives.²

The following courses may fulfill this requirement:²

MUSIC 990	Masters Thesis (consult advisor for details)	1-4
Electives (300-level or above)		7

Language Proficiency: German required

Language study may be satisfied by one of the following:

Four semesters of undergraduate study completed during the last five years, earning a grade of B or better in the last semester OR

German may be satisfied by taking the German for Reading Knowledge I, GERMAN 391, earning a grade of B or better OR

Study on your own or through courses offered by the Division of Continuing Studies. After completing the online course you must pass the DCS exam at the Intermediate level. Contact the Division of Continuing studies or <http://dcs.wisc.edu/lisa/languages>.

Other courses do not fulfill this requirement unless specifically approved by the musicology faculty.³

Total Credits 29-32

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do

not appear in the Graduate School admissions application, and they will not appear on the transcript.

² Other courses do not fulfill this requirement unless specifically approved by the music theory and musicology faculty.

³ Other courses do not fulfill this requirement unless specifically approved by the musicology faculty.

Music Theory Track ¹

Code	Title	Credits
Courses in Music Theory and Composition		12
Choose from the following. The first four courses are recommended. ²		
MUSIC 821	Historical Music Theories 1	
MUSIC 822	Historical Music Theories 2	
MUSIC 823	Schenkerian Analysis	
MUSIC 824	Post-tonal Analysis	
MUSIC 621	Renaissance Polyphony	
MUSIC 622	Baroque Counterpoint	
MUSIC 623	Form and Analysis	
MUSIC 624	Form and Analysis II	
MUSIC 725	Music Theory Pedagogy	
MUSIC 921	Current Issues in Musical Thought 1	
MUSIC 925	Topics in Music Analysis 1	
MUSIC 926	Topics in Music Analysis 2	
MUSIC 927	Seminar in Composition	
Research Methods		
MUSIC/L I S 619	Music Research Methods and Materials	3
Musicology and/or Literature Courses		6
Choose from the following courses: ³		
MUSIC 411	Survey of Music in the Middle Ages	
MUSIC 412	Survey of Music in the Renaissance	
MUSIC 413	Survey of Music in the Baroque Era	
MUSIC 414	Survey of Music in the Classic Era	
MUSIC 415	Survey of Music in the Romantic Era	
MUSIC 416	Survey of Music in the Twentieth Century	
MUSIC 419	Music in the United States	
MUSIC 500		
MUSIC/AFROAMER 509	Seminar in Afro-American Music History and Criticism	
MUSIC 511	Historical Performance Practices	
MUSIC 513	Survey of Opera	
MUSIC/FOLKLORE 515	Proseminar in Ethnomusicology	
MUSIC/FOLKLORE 535	American Folk and Vernacular Music	
MUSIC 620	Proseminar in Musicology	
MUSIC 909		
MUSIC 911	Seminar in Musicology	
MUSIC/FOLKLORE 915	Seminar in Ethnomusicology	
MUSIC 923	Seminar in Notation	

Thesis	4
MUSIC 990	Masters Thesis
Electives	5
Choose coursework in the School of Music at 300-level or above. These may include Music (600) or Music Performance (664) courses.	
Total Credits	30

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

² Other courses do not fulfill this requirement unless specifically approved by the music theory faculty.

³ Other courses do not fulfill this requirement unless specifically approved by the musicology and music theory faculty.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<http://www.music.wisc.edu/wp-content/uploads/2014/05/SOM-Grad-Handbook-1.pdf>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

No more than 6 credits may be approved for graduate coursework taken at other institutions.

UW-Madison Undergraduate

The Graduate School allows departments to review requests to count up to 7 credits of undergraduate work at UW-Madison toward graduate program requirements, but this is rarely approved by the Mead Witter School of Music faculty.

UW-Madison University Special

Some students may have completed coursework at 300 level or above at UW-Madison as a Special Student; with program approval coursework so taken may be considered to fulfill up to 6 credits of graduate program requirements. However the Graduate School mandates that fees be paid in these cases.

PROBATION

M.A. students who fail to make satisfactory progress in any of the four following areas: grades, course load, time constraints, or exams, will be notified in writing by the DGS. At the end of the second semester of failing to make satisfactory progress the student is placed on probation effective the next semester. This action suspends financial aid (but does not affect loans or work-study). For details see Satisfactory Progress for Master's Students

(<http://uwsom.wpengine.com/wp-content/uploads/2014/05/MastersSatisfactoryProgress.pdf>).

ADVISOR / COMMITTEE

All programs provide for faculty from several disciplines to follow the student's progress through the degree, provide mentorship along the way, and assess the student's success in reaching expected learning outcomes. Committee structures differ among degrees and majors. The principal advisor for most graduate students in the Mead Witter School of Music is generally referred to as the major professor.

In M.A. and Ph.D. programs the advisor may not be the eventual thesis or dissertation advisor. In all programs the major professor is determined with the student's particular interests in mind. The director of graduate studies is also an advisor for all graduate students in Mead Witter School of Music programs. Students are expected to consult with the director of graduate studies at least once per semester to determine appropriate course plans. Consultation is mandatory in the semester before intended graduation.

Music students have a committee of three or more graduate faculty, including the major professor.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

M.M. and M.A. students not receiving university funding are expected to complete requirements and pass comprehensive examinations within seven years from the time of enrollment in the program. While graduate students may enroll on a part-time basis, this time constraint still applies.

All M.M. and M.A. students holding teaching assistant, project assistant, or fellowship appointments must complete requirements for the degree within four semesters (not counting summer sessions or thesis credits). If the appointment is more than 33.4% the expectation is to complete requirements in the sixth semester.

OTHER

n/a

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Articulates and critiques the theories, research methods, and approaches to inquiry in music-related scholarship.
2. Identifies and employs a variety of sources and analytical approaches to inform discussion of topics in music.

3. Demonstrates knowledge of musical study in historical and cultural contexts.

4. Selects appropriate methodologies for research and discussion of musical topics.

5. Rationally evaluates and synthesizes information from both primary sources and secondary scholarship, posing original questions and offering fresh insight into musical topics.

6. Communicates clearly, both verbally and in writing, to colleagues in the field.

7. Recognizes and applies principles of ethical and professional conduct.

PEOPLE

Faculty: Professors Cook (director), Blasius, Calderón, Chisholm, Crook, DiSanza, Dill, Doing, Fischer, Fulmer, Hetzler, Hyer, Johnson, Karp, Koza, Leckrone, Perry, Rowe, Schaffer, Schwendinger, Stowe, Swack, B. Taylor, C. Taylor, Teeple, Thimmig, Vardi, Vallon; Associate Professors Dobbs, Grabois, Wallmann; Assistant Professors Altino, Lee, Ronis

The faculty of the Mead Witter School of Music is a distinguished group of educators, performing musicians, and active scholars. The backgrounds of performance faculty include rich experiences as professional musicians, researchers, recording artists, and entrepreneurs. Faculty in music education have particular insight into their field as a result of their backgrounds as school educators, performers, and scholars. In areas such as music theory and musicology, the musical community has high regard for the past and current contributions to the study of musical theory, historical perspectives on music, the role of music in societies around the world, and the unique contributions of American musicians. Teaching is a priority for the faculty, who are readily accessible to students for advice and support. Faculty, staff, and students cooperate in extraordinary ways with joint ventures that reach across disciplines both in research or instruction.

ACCREDITATION

ACCREDITATION

National Association of Schools of Music (<https://nasm.arts-accredit.org>)

Accreditation status: Accredited. Next accreditation review: 2022–2023

MUSIC, PH.D.

The mission of the Mead Witter School of Music is:

- to provide a rich, integrated program of undergraduate and graduate education that promotes the highest levels of professional, creative, and scholarly development while challenging students to achieve their greatest potential;
- to cultivate an environment that inspires creativity, stimulates intellectual curiosity, and fosters critical thinking; and
- to serve the university community, the public, and the profession through performance, composition, scholarship, music education, outreach, and engagement.

The Mead Witter School of Music enriches students' educational experience by hosting guest artists and scholars for master classes, recitals, colloquia, seminars, and festivals. Its performing organizations and ensembles perform more than 350 recitals and concerts every year, making a significant contribution to the cultural life of the university and the wider Madison community.

DEGREES AND MAJORS

The Ph.D. in music, a research degree, is offered in the two areas of historical musicology and music theory.

Ph.D. degrees require significant work beyond the master's degree, including the extensive independent work described above. Each degree track varies slightly. See the Course Lists available through the Requirements tab for details on each track. Contact the Mead Witter School of Music graduate office, gradadmissions@music.wisc.edu, for further information about the Ph.D. music degree.

The Ph.D.–music program is suited to students who have proven their scholarly discipline, motivation, and ability to write fluently and cogently in the historical musicology or music theory fields. The principal outcome of the program is a dissertation that makes a significant contribution to the relevant major field. A minor field of study (p. 960), required of all Ph.D.–music students, assures breadth in a field of study outside the major specialty. Proficiency in foreign languages supports research in the major field.

Each Ph.D. student benefits from the mentorship of multiple faculty members, whether from the student's own specialty or from other areas of scholarship or performance. An advisor is assigned upon the student's entering the program, and the musicology or music theory area faculty, as appropriate, participate in the preliminary examinations. The dissertation committee is designated with the student's particular research interests in mind. Through their guidance and support of the student through the degree program, faculty members offer multiple perspectives on the student's performance and research.

A summary of important information on academic policies for the Ph.D. program is available through the Policies (p. 974) tab. Complete information is available in the Mead Witter School of Music Graduate Handbook (<http://www.music.wisc.edu/wp-content/uploads/2014/05/SOM-Grad-Handbook-1.pdf>). Since the School of Music offers the Ph.D. program under the aegis of the UW–Madison Graduate School, all Ph.D. students also need to be familiar with the UW–Madison Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>). In addition to the area faculty advisor, academic guidance is available through the director of graduate studies and the graduate office in the Mead Witter School of Music.

FACILITIES

The Mosse Humanities Building, built in 1969, houses most of the music classrooms, rehearsal rooms, faculty studios, and 111 practice rooms. Most recitals and concerts take place in one of three performance spaces: Mills Concert Hall, Morphy Recital Hall, and Eastman Organ Recital Hall. The school's extensive collection of instruments, both common and unusual, is available to both faculty and students. Music Hall with its clock tower, built in 1879, is a campus landmark. Renovated in 1985, it is the home of the opera program. The new Hamel Music Center is scheduled for opening in 2019 and will include a concert hall, a recital hall, and a large ensemble rehearsal space.

Memorial Library is the home of the Mills Music Library, which offers extensive research and circulating collections, attractive study space, and personal staff assistance with research. Music materials on campus number over half a million, ranging from scores and sheet music to archival collections and historic audio recordings. Through Mills Music Library and other UW–Madison libraries, students have access to a wide range of online research databases as well as millions of articles, books, and streaming media. All genres of music are represented, with notably strong collections in Americana and ethnic music. Nationally known special collections include the Tams–Witmark Collection, a treasury of early American musical theater materials, and the Wisconsin Music Archives.

The Mead Witter School of Music is a member of the National Association of Schools of Music (NASM), the national accreditation body for schools of music, and was reaccredited in 2014.

ADMISSIONS

Minimum admission requirements of the Graduate School apply to all applicants for graduate study in music. The Mead Witter School of Music has additional requirements. Applicants should have a master's degree in music or equivalent foundational course work as required by each area of study. A cumulative GPA of 3.0 (on a 4.0 scale, calculated on the last 60 credit hours) is necessary for full admission. The Ph.D. program in music involves substantial academic work and requires excellent reading, writing, and speaking skills. Therefore, all international students are required to submit a TOEFL score. See the Mead Witter School of Music graduate admissions website (<http://www.music.wisc.edu/admissions/graduate>) for information on minimum score requirements. The Mead Witter School of Music does **not** waive the TOEFL score requirement for students who have completed a degree at an American university. All Ph.D. applicants must submit a scholarly paper as part of the application. Ph.D. applicants are also expected to submit Graduate Record Exam (GRE) scores. A visit to campus for a personal interview is recommended, especially if the applicant wishes to be considered for financial aid. For details on specific audition requirements and additional application materials, visit the Mead Witter School of Music graduate admissions website (<http://www.music.wisc.edu/admissions/graduate>).

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Mead Witter School of Music offers teaching and project assistant appointments in music history, music theory, piano, conducting, voice,

and other areas. These positions offer tuition remission plus a stipend and health care benefits. In addition, Mead Witter School of Music selects qualified applicants for the University Fellowship and Advanced Opportunity Fellowship. The UW–Madison Office of Student Financial Services assists students in obtaining general grants and loans. All Mead Witter School of Music students who receive funding are required to enroll full-time with 8–12 graduate credits.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 51 credits

Minimum Residence Credit Requirement 32 credits

Minimum Graduate Coursework Requirement Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle>).

Overall Graduate GPA Requirement 3.25 GPA required.

Other Grade Requirements Graduate students at UW–Madison must meet expectations for satisfactory progress toward completion of the degree while enrolled. In School of Music graduate programs, a graduate student must maintain a cumulative grade point average (GPA) of 3.25. Even though grades below B do not count for graduate credit toward the degree, those grades are included in computation of the GPA.

In the first semester in which the cumulative GPA falls below 3.25 the director of graduate studies will notify the student in writing. After a second semester in which the GPA remains below 3.25 the student will be placed on probation for the next semester enrolled. This action suspends all financial aid awards through UW–Madison, though loans and work-study are not affected. Failure to raise the GPA to 3.25 or above in the probation semester results in the student's withdrawal from the Graduate School and from the School of Music program.

To maintain satisfactory progress School of Music students on UW–Madison funding (teaching assistants, project assistants, fellows, and scholarship recipients) must maintain full-time status. A student's satisfactory progress is also in jeopardy should a major project or recital be judged incomplete or deficient. Failure of one or more parts of the comprehensive examinations, preliminary examinations, or final defense is also considered a lapse in satisfactory progress.

Assessments and Examinations In addition to evaluations in individual classes, School of Music programs examine graduate students at defined points in their career.

For doctoral students, preliminary examinations are tools to evaluate the student's currency and knowledge of the major field and the minor area of study, but also to determine the readiness to embark on the final stage of research. The first part of the Comprehensive Examination is written, and the second part is an oral exam attended by the student's committee members.

Once doctoral candidates have completed all their work, the oral defense is an opportunity for the dissertation (Ph.D.) or DPRC (DMA) committee to address the contributions made through the dissertation (Ph.D.) or the doctoral performance and research (DMA). No grades are reported on the transcript for these program-level examinations.

Language Requirements All School of Music doctoral programs require proficiency at the intermediate level in at least one foreign language. Foreign language proficiency assures that the student has the tools needed to pursue comprehensive research in the major field. Details on foreign language requirements and ways to fulfill proficiency expectations are outlined in the course lists available through the Requirements tab for each degree. This information is also available in the advising worksheets for each degree major track.

Doctoral Minor/Breadth Requirements All doctoral students are required to complete a minor. Minors with coursework entirely within the School of Music total 12 credits and are taken as Option B—distributed minors. These distributed minors are narrowly defined to ensure the principle of breadth in relation to the major specialty.

REQUIRED COURSES

Historical Musicology Track ¹

Code	Title	Credits
Required Seminars		21
Coursework from the following:		
MUSIC 911	Seminar in Musicology (every semester offered)	
MUSIC 821	Historical Music Theories 1	
MUSIC 822	Historical Music Theories 2	
MUSIC 799	Independent Work (requires approval of musicology faculty)	
MUSIC 909		
MUSIC/FOLKLORE 915	Seminar in Ethnomusicology (one course required if offered)	
MUSIC 921	Current Issues in Musical Thought 1	
MUSIC 925	Topics in Music Analysis 1	
MUSIC 926	Topics in Music Analysis 2	
MUSIC 927	Seminar in Composition	

Other Required Courses

MUSIC 900	Colloquium	0
MUSIC/L I S 619	Music Research Methods and Materials	3
MUSIC 923	Seminar in Notation (offered every two years)	3

Doctoral Minor 9-12

9–12 credits in a field other than the major specialty. See the Doctoral Minors page or the Mead Witter School of Music Graduate Handbook for details.

Language Proficiency

Intermediate-level proficiency is required in two foreign languages, one of which must be German. The second language may be French, Italian, or any other language which can be argued as essential to the proposed doctoral research. Each language requirement may be satisfied with:

Four semesters of undergraduate-level study (completed within five years prior to matriculation), earning a grade of B or better in the final semester OR

One semester of the following with a grade of B or better:

GERMAN 391 German for Graduate Reading Knowledge I

ITALIAN 301 Italian for Reading Knowledge

FRENCH 391 French for Reading Knowledge

OR satisfactory completion of an approved language reading examination at the intermediate level.

Consult with the area faculty or with the Mead Witter School of Music graduate office for further details.

Preliminary Examinations

Preliminary examinations occur in the semester all of the above requirements are fulfilled. See the Policies tab or, for full information on policies and procedures, the Mead Witter School of Music Graduate Handbook for full information.

Preliminary examinations are administered by the Musicology area faculty.

After preliminary examinations continuous registration for exactly three research-related credits is required.

Dissertation

MUSIC 999	PhD Diss/DMA Project	1-3
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Oral Defense

The oral defense is to be scheduled with the dissertation committee after ALL WORK is complete.

Total Credits	37-42
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¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Music Theory Track ¹

Code	Title	Credits
Seminars and Independent Work		21

The following courses are required:

MUSIC 821	Historical Music Theories 1	
MUSIC 822	Historical Music Theories 2	
MUSIC 823	Schenkerian Analysis	
MUSIC 824	Post-tonal Analysis	

Additional courses—2 seminars may be in Musicology

MUSIC 911	Seminar in Musicology	
MUSIC 921	Current Issues in Musical Thought 1	
MUSIC 923	Seminar in Notation (musicology)	
MUSIC 925	Topics in Music Analysis 1	
MUSIC 926	Topics in Music Analysis 2	
MUSIC 927	Seminar in Composition	
MUSIC 799	Independent Work	

Other required courses 3

MUSIC/L I S 619	Music Research Methods and Materials	3
MUSIC 900	Colloquium	0

Doctoral Minor

9-12 credits in a field other than the major specialty. See the Doctoral Minors page or the Mead Witter School of Music Graduate Handbook for details.

Language Proficiency

Intermediate-level reading knowledge is required in two languages. Languages must be approved by the music theory area. The most common ways of meeting the language proficiency requirements are:

Four semesters of undergraduate-level study (completed within five years prior to matriculation), earning a grade of B or better in the final semester OR

1 semester of the following:

GERMAN 391	German for Graduate Reading Knowledge I
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FRENCH 391 French for Reading Knowledge

ITALIAN 301 Italian for Reading Knowledge

OR satisfactory completion of an approved language reading examination at the intermediate level.

Consult with the area faculty or with the Mead Witter School of Music graduate office for further details.

Students should note that the course credits as described above total 33 at minimum. Up to 11 additional credits (including Dissertation credits) may be needed to earn the degree minimum of 51 credits.

Preliminary Examinations

Preliminary Examinations occur in the semester all of the above requirements are fulfilled. See the Policies tab or, for full information on policies and procedures, the Mead Witter School of Music Graduate Handbook for full information.

Preliminary Examinations are administered by the Music Theory Area.

After preliminary examinations continuous registration for exactly three research-related credits is required.

Oral Defense

The oral defense is to be scheduled with the Dissertation Committee after ALL WORK is complete.

- ¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<http://www.music.wisc.edu/wp-content/uploads/2014/05/SOM-Grad-Handbook-1.pdf>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

No more than 6 credits may be approved for graduate coursework taken at other institutions.

UW–Madison Undergraduate

The Graduate School allows departments to review requests to count up to 7 credits of undergraduate work at UW–Madison toward graduate program requirements, but this is rarely approved by the School of Music faculty.

UW–Madison University Special

Some students may have completed coursework at 300 level or above at UW–Madison as a Special Student; with program approval coursework so taken may be considered to fulfill up to 6 credits of graduate program requirements. However the Graduate School mandates that fees be paid in these cases.

PROBATION

Ph.D students who fail to make satisfactory progress in any of the following four areas: grades, course load, time constraints, or exams, will be notified in writing by the DGS. At the end of the second semester of failing to make satisfactory progress the student is placed on probation effective the next semester. This action suspends financial aid (but does not affect loans or work-study). For details see Satisfactory Progress for Doctoral Students (<http://uwsom.wpengin.com/wp-content/uploads/2014/05/DoctoralSatisfactoryProgressDocument.pdf>).

ADVISOR / COMMITTEE

All programs provide for faculty from several disciplines to follow the student's progress through the degree, provide mentorship along the way, and assess the student's success in reaching expected learning outcomes. Committee structures differ among degrees and majors. The principal advisor for most graduate students in the Mead Witter School of Music is generally referred to as the major professor.

In M.A. and Ph.D. programs the advisor may not be the eventual thesis or dissertation advisor. In all programs the major professor is determined with the student's particular interests in mind. The director of graduate studies is also an advisor for all graduate students in Mead Witter School of Music programs. Students are expected to consult with the director of graduate studies at least once per semester to determine appropriate course plans. Consultation is mandatory in the semester before intended graduation.

Ph.D. students have two committees: a four-member preliminary examination committee composed of the major professor, minor professor, and two others determined by the area; and a dissertation committee with four faculty including the major professor and a faculty member from a program other than the major. Three of these four members must be graduate faculty.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Graduate students in DMA or Ph.D. programs are allowed a maximum of four calendar years from the date entering the program to complete all course work requirements and successfully pass the preliminary examinations. The candidate must complete the dissertation (Ph.D.) or doctoral performance and research (DMA) within five years after passing the preliminary examinations.

OTHER

n/a

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Articulates research problems, potentials and limits with respect to theory and cultural understanding of music.
2. Formulates ideas and concepts beyond the current boundaries of knowledge in the field of music study.
3. Demonstrates breadth within the learning experiences in an area of study outside the principal field of inquiry.
4. Accomplishes research that makes a substantive contribution to the field.
5. Creates well-written monographs based upon original research that make substantive contributions to the field.
6. Communicates complex ideas in a clear and understandable manner, both verbally and in writing.
7. Fosters ethical and professional conduct.

PEOPLE

Faculty: Professors Cook (director), Blasius, Calderón, Chisholm, Crook, DiSanza, Dill, Doing, Fischer, Fulmer, Hetzler, Hyer, Johnson, Karp, Koza, Leckrone, Perry, Rowe, Schaffer, Schwendinger, Stowe, Swack, B. Taylor, C. Taylor, Teeple, Thimmig, Vardi, Vallon; Associate Professors Dobbs, Grabois, Wallmann; Assistant Professors Altino, Lee, Ronis

The faculty of the Mead Witter School of Music is a distinguished group of educators, performing musicians, and active scholars. The backgrounds of performance faculty include rich experiences as professional musicians, researchers, recording artists, and entrepreneurs. Faculty in music education have particular insight into their field as a result of their backgrounds as school educators, performers, and scholars. In areas such as music theory and musicology, the musical community has high regard for the past and current contributions to the study of musical theory, historical perspectives on music, the role of music in societies around the world, and the unique contributions of American musicians. Teaching is a priority for the faculty, who are readily accessible to students for advice and support. Faculty, staff, and students cooperate in extraordinary ways with joint ventures that reach across disciplines both in research or instruction.

ACCREDITATION

ACCREDITATION

National Association of Schools of Music (<https://nasm.arts-accredit.org>)

Accreditation status: Accredited. Next accreditation review: 2022–2023

MUSIC: EDUCATION, M.M.

The mission of the Mead Witter School of Music is:

- to provide a rich, integrated program of undergraduate and graduate education that promotes the highest levels of professional, creative, and scholarly development while challenging students to achieve their greatest potential;
- to cultivate an environment that inspires creativity, stimulates intellectual curiosity, and fosters critical thinking; and
- to serve the university community, the public, and the profession through performance, composition, scholarship, music education, outreach, and engagement.

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THE MASTER OF MUSIC: EDUCATION PROGRAM

The master of music: education program is suited to those who wish to emphasize music content in advanced study of education. Those who wish to explore music education within the context of education at large should consider the curriculum and instruction M.S. program in the School of Education. A double master's degree with the School of Library and Information Studies is also offered.

Applicants to the master's program in music education are strongly encouraged to contact the music education faculty to schedule an interview and visit to the school. A cumulative GPA of 3.0 (on a 4.0 scale, calculated on the last 60 credit hours) is necessary for full admission. Refer to the Admissions tab for details on admission requirements.

Contact the Mead Witter School of Music graduate office, gradadmissions@music.wisc.edu, for further details about the M.M.–music education degree.

The M.M.–music education degree offers the opportunity for advanced study in the field of musical education. Upon enrollment in the program, one of the music education faculty members acts as advisor for the student. This is usually the major professor, who the faculty determine based upon a student's particular interests. The examination committee for comprehensive examinations in the second year is comprised of the major professor along with two other faculty members.

A summary of important academic policies are available through the Policies (p. 978) tab. A more complete document, the Mead Witter School of Music Graduate Handbook (<http://www.music.wisc.edu/wp-content/uploads/2014/05/SOM-Graduate-Handbook-Booklet-jrdrev-2.pdf>), lists all academic policies and procedures in music graduate programs. All students need to be familiar with the Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>).

Mentoring of students is of prime importance to faculty members at Mead Witter School of Music. The faculty advisor and the director of graduate studies both guide the student's course planning. While each faculty member has a unique style of mentoring, every student in can

be assured of abundant time working closely with more than one mentor in addition to the advisor during the course of a UW–Madison degree program.

FACILITIES

The Mosse Humanities Building, built in 1969, houses most of the music classrooms, rehearsal rooms, faculty studios, and 111 practice rooms. Most recitals and concerts take place in one of three performance spaces: Mills Concert Hall, Morphy Recital Hall, and Eastman Organ Recital Hall. The school's extensive collection of instruments, both common and unusual, is available to both faculty and students. Music Hall with its clock tower, built in 1879, is a campus landmark. Renovated in 1985, it is the home of the opera program. The new Hamel Music Center is scheduled for opening in 2019 and will include a concert hall, a recital hall, and a large ensemble rehearsal space.

Memorial Library is the home of the Mills Music Library, which offers extensive research and circulating collections, attractive study space, and personal staff assistance with research. Music materials on campus number over half a million, ranging from scores and sheet music to archival collections and historic audio recordings. Through Mills Music Library and other UW–Madison libraries students have access to a wide range of online research databases as well as millions of articles, books, and streaming media. All genres of music are represented, with notably strong collections in Americana and ethnic music. Nationally known special collections include the Tams–Witmark Collection, a treasury of early American musical theater materials, and the Wisconsin Music Archives.

The Mead Witter School of Music is a member of the National Association of Schools of Music (NASM), the national accreditation body for schools of music, and was reaccredited in 2014.

ADMISSIONS

Minimum admission requirements of the Graduate School apply to all applicants for graduate study in music. The Mead Witter School of Music has additional requirements. Applicants should have a bachelor's degree in music or equivalent foundational course work as required by each area of study. An undergraduate GPA of 3.0 (on a 4.0 scale, calculated on the last 60 credit hours) is necessary for full admission. M.M. applicants in music education should have an undergraduate degree in music education and at least two years of music teaching experience—interested students are encouraged to contact the music education faculty prior to application. The M.M.–music education program involves substantial academic work and requires excellent reading, writing, and speaking skills. Therefore, all international students are required to submit a TOEFL score. See the Mead Witter School of Music graduate admissions website (<http://www.music.wisc.edu/admissions/graduate>) for information on minimum score requirements. The Mead Witter School of Music does **not** waive the TOEFL score requirement for students who have completed a degree at an American university. For details on specific audition requirements and additional application materials, visit the School of Music graduate admissions website (<http://www.music.wisc.edu/admissions/graduate>).

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have

researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

The Mead Witter School of Music also offers teaching and project assistantships in music history, music theory, piano, conducting, voice, and other performance areas. These positions offer tuition remission plus a salary and health care benefits. In addition, the Mead Witter School of Music selects qualified applicants for the University Fellowship and Advanced Opportunity Fellowship. The UW–Madison Office of Student Financial Services assists students in obtaining general grants and loans. All Mead Witter School of Music students who receive funding are required to maintain full-time enrollment status. Many students also take advantage of work-study opportunities on campus, and many are employed part-time in area musical organizations, education, or business entities.

M.A.–music: education students may be considered for Teaching Assistant appointments, providing positions are available. All M.M. students may be considered for a University Fellowship, and qualified applicants may be considered for the Advanced Opportunity Fellowship. Feel free to direct questions about any of these funding opportunities to the Mead Witter School of Music graduate admissions office, gradadmissions.music.wisc.edu.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules.

Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.25 GPA required.

Other Grade Requirements Graduate students at UW–Madison must meet expectations for satisfactory progress toward completion of the degree while enrolled. In School of Music graduate programs, a graduate student must maintain a cumulative grade point average (GPA) of 3.25. Even though grades below B do not count for graduate credit toward the degree, those grades are included in computation of the GPA.

In the first semester in which the cumulative GPA falls below 3.25 the director of graduate studies will notify the student in writing. After a second semester in which the GPA remains below 3.25 the student will be placed on probation for the next semester enrolled. This action suspends all financial aid awards through UW–Madison, though loans and work-study are not affected. Failure to raise the GPA to 3.25 or above in the probation semester results in the student's withdrawal from the Graduate School and from the School of Music program.

To maintain satisfactory progress School of Music students on UW–Madison funding (teaching assistants, project assistants, fellows, and scholarship recipients) must maintain full-time status. A student's satisfactory progress is also in jeopardy should a major project or recital be judged incomplete or deficient. Failure of one or more parts of the comprehensive examinations, preliminary examinations, or final defense is also considered a lapse in satisfactory progress.

Assessments and Examinations In addition to evaluations in individual classes, School of Music programs examine graduate students at defined points in their career.

For master's students, comprehensive examinations measure the candidate's range of musical knowledge in both fields of music history and the major.

Language Requirements All School of Music doctoral programs require proficiency at the intermediate level in at least one foreign language. Foreign language proficiency assures that the student has the tools needed to pursue comprehensive research in the major field. Details on foreign language requirements and ways to fulfill proficiency expectations are outlined in the course lists available through the Requirements tab for each degree. This information is also available in the advising worksheets for each degree major track.

REQUIRED COURSES

You may direct any questions about the coursework or required proficiencies to the Mead Witter School of Music graduate admissions office, gradadmissions.music.wisc.edu, or directly to the faculty of the music education area.

Code	Title	Credits
Comprehensive Music Education		
Choose three courses from the following; may include other courses approved by the advisor:		9
CURRIC 945	Seminar in Music Education	
CURRIC 946	Past Perspectives on Music Education	
CURRIC 947	Current Issues in Music Education	
CURRIC 948	Diversity Issues in Music Teaching	
Area of Specialty		5
Advisor-approved courses		
Musicology and Theory		9
At least one course must be taken in Musicology and one in Music Theory. 9 credits must be earned at UW–Madison.		
Eligible musicology courses include: ¹		
MUSIC/ FOLKLORE 401	Musical Cultures of the World	
MUSIC/ FOLKLORE 402	Musical Cultures of the World	
MUSIC 411	Survey of Music in the Middle Ages	
MUSIC 412	Survey of Music in the Renaissance	
MUSIC 413	Survey of Music in the Baroque Era	
MUSIC 414	Survey of Music in the Classic Era	
MUSIC 415	Survey of Music in the Romantic Era	
MUSIC 416	Survey of Music in the Twentieth Century	
MUSIC 497	Special Topics in Music (approved topic only; also eligible as music theory, approved topic only)	
MUSIC 511	Historical Performance Practices	
MUSIC 513	Survey of Opera	
MUSIC 620	Proseminar in Musicology	

MUSIC 911	Seminar in Musicology	
MUSIC/ FOLKLORE 915	Seminar in Ethnomusicology	
MUSIC 923	Seminar in Notation	
Eligible music theory courses include: ²		
MUSIC 621	Renaissance Polyphony	
MUSIC 622	Baroque Counterpoint	
MUSIC 623	Form and Analysis	
MUSIC 624	Form and Analysis II	
MUSIC 523	Orchestration I	
MUSIC 331	Jazz Improvisation	
MUSIC 725	Music Theory Pedagogy	
MUSIC 821	Historical Music Theories 1 (also eligible as a musicology course)	
MUSIC 822	Historical Music Theories 2 (also eligible as a musicology course)	
MUSIC 823	Schenkerian Analysis	
MUSIC 824	Post-tonal Analysis	
MUSIC 921	Current Issues in Musical Thought 1	
MUSIC 925	Topics in Music Analysis 1	
MUSIC 926	Topics in Music Analysis 2	
MUSIC 927	Seminar in Composition	
Final Project		2-4
CURRIC 699	Independent Reading	
Electives		5
Courses approved by advisor		
Total Credits		30-32

¹ Other courses do not fulfill this requirement unless specifically approved by the Musicology faculty.

² Other courses do not fulfill this requirement unless specifically approved by the Music Theory faculty.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<http://www.music.wisc.edu/wp-content/uploads/2014/05/SOM-Grad-Handbook-1.pdf>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

No more than 6 credits may be approved for graduate coursework taken at other institutions.

UW–Madison Undergraduate

The Graduate School allows departments to review requests to count up to 7 credits of undergraduate work at UW–Madison toward graduate program requirements, but this is rarely approved by the Mead Witter School of Music faculty.

UW–Madison University Special

Some students may have completed coursework at 300-level or above at UW–Madison as a Special Student; with program approval coursework so taken may be considered to fulfill up to 6 credits of graduate program requirements. However, the Graduate School mandates that fees be paid in these cases.

PROBATION

M.M. students who fail to make satisfactory progress in any of the four following areas: grades, course load, time constraints, or exams, will be notified in writing by the DGS. At the end of the second semester of failing to make satisfactory progress the student is placed on probation effective the next semester. This action suspends financial aid (but does not affect loans or work-study). See details at the Satisfactory Progress for Masters Students (<http://uwsom.wpengine.com/wp-content/uploads/2014/05/MastersSatisfactoryProgress.pdf>).

ADVISOR / COMMITTEE

All programs provide for faculty from several disciplines to follow the student's progress through the degree, provide mentorship along the way, and assess the student's success in reaching expected learning outcomes. Committee structures differ among degrees and majors.

Music education students have a committee of three or more graduate faculty, including the major professor.

The principal advisor for most graduate students in the Mead Witter School of Music is generally referred to as the major professor. In all programs the major professor is determined with the student's particular interests in mind.

The director of graduate studies is also an advisor for all graduate students in Mead Witter School of Music programs. Students are expected to consult with the director of graduate studies at least once per semester to determine appropriate course plans. Consultation is mandatory in the semester before intended graduation.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

M.M. and M.A. students not receiving university funding are expected to complete requirements and pass comprehensive examinations within seven years from the time of enrollment in the program. While graduate students may enroll on a part-time basis, this time constraint still applies.

All M.M. and M.A. students holding teaching assistant, project assistant, or fellowship appointments must complete requirements for the degree within four semesters (not counting summer sessions or thesis credits). If the appointment is more than 33.4% the expectation is to complete requirements in the sixth semester.

OTHER

n/a

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Communicates clearly in multiple modes, including written and verbal, a well-developed foundational understanding, scholarly and practically, of the field of music education as it currently exists.
2. Demonstrates understanding of music education from multiple perspectives, including but not limited to social, cultural, historical and musical perspectives.
3. Draws upon extensive understandings of music learning and teaching as socially situated and constructed in multiple ways, honoring human difference as a rich source of information and demonstrates this in coursework and final projects.
4. Understands and applies principles of ethical and professional conduct.
5. Respects colleagues and values contributions of others in both individual and collaborative endeavors.

PEOPLE

Faculty: Professors Cook (director), Blasius, Calderón, Chisholm, Crook, DiSanza, Dill, Doing, Fischer, Fulmer, Hetzler, Hyer, Johnson, Karp, Koza, Leckrone, Perry, Rowe, Schaffer, Schwendinger, Stowe, Swack, B. Taylor, C. Taylor, Teeple, Thimmig, Vardi, Vallon; Associate Professors Dobbs, Grabois, Wallmann; Assistant Professors Altino, Lee, Ronis

The faculty of the Mead Witter School of Music is a distinguished group of educators, performing musicians, and active scholars. The backgrounds of performance faculty include rich experiences as professional musicians, researchers, recording artists, and entrepreneurs. Faculty in music education have particular insight into their field as a result of their backgrounds as school educators, performers, and scholars. In areas such as music theory and musicology, the musical community has high regard for the past and current contributions to the study of musical theory, historical perspectives on music, the role of music in societies around the world, and the unique contributions of American musicians. Teaching is a priority for the faculty, who are readily accessible to students for advice and support. Faculty, staff, and students cooperate in extraordinary ways with joint ventures that reach across disciplines both in research or instruction.

ACCREDITATION

ACCREDITATION

National Association of Schools of Music (<https://nasm.arts-accredit.org>)

Accreditation status: Accredited. Next accreditation review: 2022–2023

MUSIC: PERFORMANCE, DMA

The mission of the Mead Witter School of Music is:

- to provide a rich, integrated program of undergraduate and graduate education that promotes the highest levels of professional, creative, and scholarly development while challenging students to achieve their greatest potential;
- to cultivate an environment that inspires creativity, stimulates intellectual curiosity, and fosters critical thinking; and
- to serve the university community, the public, and the profession through performance, composition, scholarship, music education, outreach, and engagement.

The Mead Witter School of Music enriches students' educational experience by hosting guest artists and scholars for master classes, recitals, colloquia, seminars, and festivals. Mead Witter School of Music organizations and ensembles perform more than 350 recitals and concerts every year, making a significant contribution to the cultural life of the university and the wider Madison community.

Mead Witter School of Music views its goals and objectives as complementary to those of the University of Wisconsin–Madison, which include "to provide an environment in which faculty and students can discover, examine critically, preserve and transmit the knowledge, wisdom and values that will help ensure the survival of the present and future generations with improvement in the quality of life."

The University of Wisconsin–Madison School of Music is accredited by the National Association of Schools of Music (NASM), and has been an institutional member of NASM since 1966.

THE DOCTOR OF MUSICAL ARTS DEGREE

The DMA (Doctor of Musical Arts) and the Ph.D. are the highest degrees conferred by the Mead Witter School of Music. The DMA is granted for evidence of general proficiency and distinctive attainment in a specialized field of performance. The student's ability in independent investigation is demonstrated through a series of public recital performances and in a final project presenting original research and creative scholarship.

Every major track in the DMA program consists of, first, course and proficiency requirements including a minor field of study outside the student's major performance specialty. In addition to this, the core of the degree program is the doctoral candidate's Doctoral Performance and Research. This is a body of performances and scholarship that is, as a whole, the candidate's significant contribution to the field of musical performance.

The DMA in music: performance is offered with concentrations in: brass; composition; guitar; percussion; piano performance; collaborative piano; piano performance and pedagogy; organ; string performance; vocal

performance; opera; woodwinds; multiple woodwinds; choral conducting; orchestral conducting; wind conducting.

The DMA degrees requires significant work beyond the master's degree, including the extensive independent work described above. Each major track varies slightly. See the course lists available through the Requirements tab for details. Contact the Mead Witter School of Music graduate office for complete explanations of the degrees offered at the master's or doctoral levels: gradadmissions@music.wisc.edu. (gradadmissions@music.wisc.edu)

Doctor of Musical Arts students have achieved a high level of artistry as a performing musician before beginning the program at Mead Witter School of Music. The curriculum is designed to challenge students, broaden their musical knowledge and experience, and foster their growth in accomplishing independent research as well as formulating a unique approach to musical performance. Coursework in musicology and music theory, study of pedagogy and literature, and close mentorship by a group of supportive faculty members all contribute toward deepening a DMA student's encounter with music. A minor field of study (p. 960), required of all DMA students, assures breadth by ensuring work in a field of study outside the major specialty. Proficiency in a foreign language supports research in the major field.

All DMA curricula in the Mead Witter School of Music are built on a similar model: applied study in the field of major specialty, related courses in the major specialty, a variety of musicology and theory courses, a minor field of study, and proficiency in at least one foreign language. The tracks differ in details, such as the number and nature of recital performances. The core of the DMA program, of course, is doctoral performance and research, a body of work comprised of public performances (recorded and available to scholars and musicians) and a doctoral research project. The whole is the DMA candidate's contribution to the community of performers and scholars.

Each DMA student has a faculty committee, the doctoral performance and research committee. Mentoring, evaluating, and supporting the student through the degree program, this committee provides multiple perspectives on the student's performance and research.

Important information on academic policies for the DMA program is available, in summary, through the Policies page. Complete information is available in the Mead Witter School of Music Graduate Handbook (<http://www.music.wisc.edu/wp-content/uploads/2014/05/SOM-Grad-Handbook-1.pdf>). Since the School of Music offers the DMA program through the aegis of the UW-Madison Graduate School, all DMA students also need to be familiar with the UW-Madison Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>). Advising is available through the major professor as well as through the director of graduate studies and the graduate office in the Mead Witter School of Music.

ADMISSIONS

Minimum admission requirements of the Graduate School apply to all applicants for graduate study in music. The Mead Witter School of Music has additional requirements. Applicants should have a master's degree in music or equivalent foundational course work as required by each area of study. A cumulative GPA of 3.0 (on a 4.0 scale, calculated on the last 60 credit hours) is necessary for full admission. Admission to the DMA program assumes a high level of performance ability determined by audition. Composition applicants must have completed a master's degree

or equivalent in composition. The DMA program involves substantial academic work and requires excellent reading, writing, and speaking skills. Therefore, all international students are required to submit a TOEFL score. See the Mead Witter School of Music graduate admissions website (<http://www.music.wisc.edu/admissions/graduate>) for information on minimum score requirements. The Mead Witter School of Music does **not** waive the TOEFL score requirement for students who have completed a degree at an American university. All DMA applicants must submit a scholarly paper as part of the application. Typically, performance applicants are required to audition in person. For details on specific audition requirements and additional application materials, visit the Mead Witter School of Music graduate admissions website (<http://www.music.wisc.edu/admissions/graduate>).

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Through the generosity of Paul J. Collins, the Mead Witter School of Music is the recipient of a substantial fellowship fund which, in combination with the Graduate School and University Foundation, allows the school to offer multiple-year funding to the highest quality graduate students in performance. The Collins fellowships, along with The Lorna Wendt and Anonymous Fund Fellowships for Choral and Voice students are offered as Wisconsin Distinguished Fellowships and provide full tuition and fees, a generous stipend, additional funds, and comprehensive health care. Nomination by a performance faculty member—usually following an on-site audition—is required for consideration.

The Mead Witter School of Music also offers teaching and project assistantships in music history, music theory, piano, conducting, voice, and other performance areas. These positions offer tuition remission plus a salary and health care benefits. In addition, the Mead Witter School of Music selects qualified applicants for the Chancellor's Fellowship, University Fellowship, and Advanced Opportunity Fellowship. The UW-Madison Office of Student Financial Services assists students in obtaining general grants and loans. All Mead Witter School of Music students who receive funding are required to enroll full-time with 8–12 graduate credits.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 51 credits

Minimum Residence Credit Requirement 32 credits

Minimum Graduate Coursework Requirement Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle>).

Overall Graduate GPA Requirement 3.25 GPA required.

Other Grade Requirements Graduate students at UW–Madison must meet expectations for satisfactory progress toward completion of the degree while enrolled. In School of Music graduate programs, a graduate student must maintain a cumulative grade point average (GPA) of 3.25. Even though grades below B do not count for graduate credit toward the degree, those grades are included in computation of the GPA.

In the first semester in which the cumulative GPA falls below 3.25 the director of graduate studies will notify the student in writing. After a second semester in which the GPA remains below 3.25 the student will be placed on probation for the next semester enrolled. This action suspends all financial aid awards through UW–Madison, though loans and work-study are not affected. Failure to raise the GPA to 3.25 or above in the probation semester results in the student's withdrawal from the Graduate School and from the School of Music program.

To maintain satisfactory progress School of Music students on UW–Madison funding (teaching assistants, project assistants, fellows, and scholarship recipients) must maintain full-time status. A student's satisfactory progress is also in jeopardy should a major project or recital be judged incomplete or deficient. Failure of one or more parts of the comprehensive examinations, preliminary examinations, or final defense is also considered a lapse in satisfactory progress.

Assessments and Examinations In addition to evaluations in individual classes, School of Music programs examine graduate students at defined points in their career.

For doctoral students, preliminary examinations are tools to evaluate the student's currency and knowledge of the major field and the minor area of study, but also to determine the readiness to embark on the final stage of research. The first part of the Comprehensive Examination is written, and the second part is an oral exam attended by the student's committee members.

Once doctoral candidates have completed all their work, the oral defense is an opportunity for the dissertation (Ph.D.) or DPRC (DMA) committee to address the contributions made through the dissertation (Ph.D.) or the doctoral performance and research (DMA). No grades are reported on the transcript for these program-level examinations.

Language Requirements All School of Music doctoral programs require proficiency at the intermediate level in at least one foreign language. Foreign language proficiency assures that the student has the tools needed to pursue comprehensive research in the major field. Details on foreign language requirements and ways to fulfill proficiency expectations are outlined in the course lists available through the Requirements tab for each degree. This information is also available in the advising worksheets for each degree major track.

Doctoral Minor/Breadth Requirements All doctoral students are required to complete a minor. Minors with coursework entirely within the School of Music total 12 credits and are taken as Option B—distributed minors. These distributed minors are narrowly defined to ensure the principle of breadth in relation to the major specialty.

REQUIRED COURSES

The tables below outline requirements for each major track. If you have questions about any of our programs, we invite you to contact the Mead Witter School of Music graduate admissions office.

Brass Track ¹

Code	Title	Credits
Doctoral Level Applied Instrument Study		16
4 semesters, 4 credits each semester		
Select course corresponding to the major instrument:		
MUS PERF 717	Doctoral Level-Horn	
MUS PERF 719	Doctoral Level-Trumpet	
MUS PERF 721	Doctoral Level-Trombone	
MUS PERF 723	Doctoral Level Euphonium	
MUS PERF 725	Doctoral Level Tuba	

Literature		4
MUSIC 798	Seminar-Instrumental Literature (topics course; two semesters required) ²	

Reference and Research Materials

MUSIC/L I S 619	Music Research Methods and Materials	3
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Musicology and Music Theory Courses 9

At least one course must be taken in Musicology and one in Music Theory. 9 credits must be earned at UW-Madison.

For a summary of the courses eligible for this requirement refer to the last table on this page: DMA: Courses Qualifying for Musicology and Music Theory Requirement

Doctoral Minor 9-12

9-12 credits in a field other than the major specialty. See the Doctoral Minors page or the Mead Witter School of Music Graduate Handbook for details.

Language Proficiency

One foreign language at intermediate level reading knowledge. French or German preferred. See Mead Witter School of Music Graduate Handbook for details on meeting the Foreign Language Proficiency.

Students should note that the course credits required as described above total 45 credits at minimum (including 4 recitals). Up to an additional six credits (including the lecture-recital and DMA research project) may be needed to reach the required 51 credits.

Preliminary Examinations

Preliminary Examinations occur in the semester all of the above requirements are fulfilled. See the Policies tab or, for full information on policies and procedures, the Mead Witter School of Music Graduate Handbook for full information.

After preliminary examinations continuous registration for exactly three research-related credits is required. This may include both degree recitals (MUS PERF 999) and Research (MUSIC 999).

Doctoral Performance and Research

1. Recitals

Enroll for each recital as a 1-credit course.

5 recitals are required: one solo recital, one chamber recital, one solo/chamber/combination recital, one concerto performance (preferably with orchestra), and one lecture recital. The lecture recital is usually scheduled after preliminary examinations.

MUS PERF 999	DMA Recital
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2. DMA Research Project

MUSIC 999	PhD Diss/DMA Project
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Enroll in 1-3 credits to bring course load total to 3 credits.

Oral Defense

The oral defense is to be scheduled with the Doctoral Performance and Research Committee after ALL WORK is complete.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

² One semester focuses on literature, the other on pedagogy.

Choral Conducting Track ¹

Code	Title	Credits
Doctoral Level Conducting Applied Study		8
2 credits each semester		
MUS PERF 732	Doctoral Level Conducting	
Advanced Conducting Seminar		6
3 semesters required		
MUSIC 553	Advanced Conducting Seminar	
Seminar: Choral Literature		4
2 semesters required		
MUSIC 541	Seminar in Choral Literature	

Reference and Research Materials

MUSIC/L I S 619	Music Research Methods and Materials	
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Musicology and Music Theory Courses

At least one course must be taken in Musicology and one in Music Theory. 9 credits must be earned at UW-Madison.

For a summary of the courses eligible for this requirement refer to the last table on this page: DMA: Courses Qualifying for Musicology and Music Theory Requirement

Doctoral Minor 9-12

9-12 credits in a field other than the major specialty. See the Doctoral Minors page or the Mead Witter School of Music Graduate Handbook for details.

Foreign Language Proficiency

Two foreign languages (one must be German) at intermediate level reading knowledge. See Mead Witter School of Music Graduate Handbook for details on meeting the Foreign Language Proficiency.

Students should note that the course credits required as described above total 42 credits at minimum (including 3 recitals). Up to an additional 9 credits (including 2 recitals and DMA research project) may be needed to reach the minimum of 51 credits earned in the program.

Preliminary Examinations

Preliminary Examinations occur in the semester all of the above requirements are fulfilled. See the Policies tab or, for full information on policies and procedures, the Mead Witter School of Music Graduate Handbook for full information.

After preliminary examinations continuous registration for exactly three research-related credits is required. This may include both degree recitals (MUS PERF 999) and Research (MUSIC 999).

Doctoral Performance and Research

1. Recitals

5 recitals required as described below. The lecture-recital and final performance are normally presented after preliminary examinations, while all others are normally presented before preliminary examinations. Enroll for each recital as a separate 1-credit course.

MUS PERF 999	DMA Recital
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1 small group recital

1 a cappella recital

1 recital with voices and instruments

1 lecture-recital performance

1 final performance

2. DMA Research Project

Enroll in 1-3 credits to bring course load total to 3 credits.

MUSIC 999	PhD Diss/DMA Project
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Oral Defense

The oral defense is to be scheduled with the Doctoral Performance and Research Committee after ALL WORK is complete.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Collaborative Piano Track ¹

Code	Title	Credits
Doctoral Level Piano Accompanying Applied Study		8
4 semesters, 2 credits each semester		
MUS PERF 742	Doctoral Level Private Instruction in Accompanying	

Other Coursework in the Major

MUSIC 796	Seminar in Duo Sonata Literature	3
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MUSIC 792	Seminar in Vocal Literature	3
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MUSIC 467	Language Diction for Singing I	4
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& MUSIC 468	and Language Diction for Singing II	
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or MUSIC 466	Diction for Singers	
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Reference and Research Materials

MUSIC/L I S 619	Music Research Methods and Materials	3
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Doctoral Minor	9-12
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9-12 credits in a field other than the major specialty. See the Doctoral Minors page or the Mead Witter School of Music Graduate Handbook for details.

Language Proficiency

Proficiency in the pronunciation of English, French, German, Italian, and knowledge of the International Phonetic Alphabet system are required and determined by the major professor. The basis for doctoral study in collaborative piano is 2 semesters each of elementary German, French, and Italian. Depending upon the area of focus (vocal or instrumental), doctoral students normally continue to the intermediate level in 2 languages. The language requirement will be monitored by the major professor.

Students should note that the course credits as described above total 43 at minimum (including 4 recitals). Up to an additional 8 credits (including recitals and DMA Research Project) may be needed to earn the degree minimum of 51 credits.

Preliminary Examinations

Preliminary Examinations occur in the semester all of the above requirements are fulfilled. See the Policies tab or, for full information on policies and procedures, the Mead Witter School of Music Graduate Handbook for full information.

After preliminary examinations continuous registration for exactly three research-related credits is required. This may include both degree recitals (MUS PERF 999) and Research (MUSIC 999).

Doctoral Performance and Research

This body of work, comprising degree recitals and the DMA Research Project, is the core of the DMA degree.

1. Recitals

6 recitals are required. These must include at least 1 vocal, 1 instrumental, with four recitals normally performed before preliminary examinations. After preliminary examinations recitals usually include 1 lecture-recital and 1 final recital (prepared independently).

Enroll for each recital as a separate 1-credit course.

MUS PERF 999	DMA Recital
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2. DMA Research Project

Enroll in 1-3 credits to bring course load total to 3 credits.

MUSIC 999	PhD Diss/DMA Project
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Oral Defense

The oral defense is to be scheduled with the Doctoral Performance and Research Committee after ALL WORK is complete.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Composition Track ¹

Code	Title	Credits
Doctoral Composition Applied Study		12
4 semesters, 3 credits each semester		

MUS PERF 747	Doctoral Level Composition (taken twice)	
MUS PERF 748	Doctoral Level Composition (taken twice)	
Seminars in Composition		6
The following courses qualify for this requirement:		
MUSIC 523	Orchestration I	
MUSIC 927	Seminar in Composition	
Historical Musicology		6
The following courses qualify for this requirement:		
MUSIC 411	Survey of Music in the Middle Ages	
MUSIC 412	Survey of Music in the Renaissance	
MUSIC 413	Survey of Music in the Baroque Era	
MUSIC 414	Survey of Music in the Classic Era	
MUSIC 415	Survey of Music in the Romantic Era	
MUSIC 416	Survey of Music in the Twentieth Century	
MUSIC 419	Music in the United States	
MUSIC 511	Historical Performance Practices	
MUSIC 513	Survey of Opera	
MUSIC 911	Seminar in Musicology	
Music Theory		6
The following courses qualify for this requirement: ²		
MUSIC 623	Form and Analysis	
MUSIC 624	Form and Analysis II	
MUSIC 821	Historical Music Theories 1	
MUSIC 822	Historical Music Theories 2	
MUSIC 823	Schenkerian Analysis	
MUSIC 824	Post-tonal Analysis	
MUSIC 921	Current Issues in Musical Thought 1	
MUSIC 925	Topics in Music Analysis 1	
MUSIC 926	Topics in Music Analysis 2	
Conducting		6
Consult with major professor on course choices.		
Other Required Courses		
MUSIC/L I S 619	Music Research Methods and Materials	3
MUSIC 900	Colloquium	0
Doctoral Minor		9-12
9-12 credits in a field other than composition. See Doctoral Minors page or the Mead Witter School of Music Graduate Handbook for more information.		
Foreign Language Proficiency		
One foreign language at intermediate level reading knowledge. French or German preferred. See Mead Witter School of Music Graduate Handbook for details on meeting the Foreign Language Proficiency.		
<i>Students should note that the course credits as described above total 48 at minimum. Up to an additional 3 credits (including the lecture-recital and DMA composition project) may be needed to reach the minimum of 51 credits earned.</i>		
Preliminary Examinations		

Preliminary Examinations occur in the semester all of the above requirements are fulfilled. See the Policies tab or, for full information on policies and procedures, the Mead Witter School of Music Graduate Handbook for full information.

After preliminary examinations continuous registration for exactly three research-related credits is required. This may include both degree recitals (MUS PERF 999) and Research (MUSIC 999).

Doctoral Performance and Research

1. Lecture-recital.

The lecture-recital is scheduled after the preliminary examinations.

MUS PERF 999	DMA Recital	1
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2. DMA Composition Project

Enroll in 1-3 credits to bring course load total to 3 credits.

MUSIC 999	PhD Diss/DMA Project ³	1-3
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Oral Defense

The oral defense is to be scheduled with the Doctoral Performance and Research Committee after ALL WORK is complete.

- These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.
- Note that MUSIC 621 Renaissance Polyphony and MUSIC 622 Baroque Counterpoint are considered deficiencies for a DMA student. All students need to have taken those courses before beginning the program. MUSIC 621 and MUSIC 622 will not fulfill the requirement for Music Theory courses in the composition major.
- Although ideally every DMA project will look different, there are a number of criteria students should keep in mind while preparing their DMA projects: 1) The project should show a certain level of ambition and rigor, either in the size or scope of the creative work chosen (e.g., an opera, symphonic work, concerto, to name a few examples); 2) Although it may be based on pre-existing text, or other materials, the bulk of the project must be original creative work, done by the DMA candidate. 3) DMA candidates should discuss their project proposals fully with the major professor and with all members of their DPRC before starting their project. 4) Examples of successful DMA projects are available in Mills Music Library on the UW-Madison campus.

Orchestral Conducting Track ¹

Code	Title	Credits
Doctoral Level Conducting Applied Study		8
2 credits each semester		
MUS PERF 732	Doctoral Level Conducting	
Choral Conducting		2
MUSIC 553	Advanced Conducting Seminar ²	
	or MUS PERF 532 Advanced Conducting	
Reference and Research Materials		
MUSIC/L I S 619	Music Research Methods and Materials	3
Musicology and Music Theory Courses		9

At least one course must be taken in Musicology and one in Music Theory. 9 credits must be earned at UW-Madison.

For a summary of the courses eligible for this requirement refer to the last table on this page: DMA: Courses Qualifying for Musicology and Music Theory Requirement

Doctoral Minor 9-12

9-12 credits in a field other than the major specialty. See the Doctoral Minors tab or the Mead Witter School of Music Graduate Handbook for details.

Foreign Language Proficiency

One foreign language at intermediate level reading knowledge. French or German preferred. See Mead Witter School of Music Graduate Handbook for details on meeting the Foreign Language Proficiency.

Students should note that the course credits as described above total 36 at minimum (including 0 recitals) before preliminary examinations. Up to an additional 15 credits (including recitals and DMA research project) may be needed to reach the minimum of 51 credits earned.

Preliminary Examinations

Preliminary Examinations occur in the semester all of the above requirements are fulfilled. See the Policies tab or, for full information on policies and procedures, the Mead Witter School of Music Graduate Handbook for full information.

After preliminary examinations continuous registration for exactly three research-related credits is required. This may include both degree recitals (MUS PERF 999) and Research (MUSIC 999).

Doctoral Performance and Research

1. Recitals.

5 recitals required. Major professor will advise on scheduling of recitals before or after preliminary examinations.

Enroll for each recital as a separate 1 credit course.

MUS PERF 999	DMA Recital
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2. DMA Research Project.

Enroll in 1-3 credits to bring course load total to 3 credits.

MUSIC 999	PhD Diss/DMA Project
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Oral Defense

The oral defense is to be scheduled with the Doctoral Performance and Research Committee after ALL WORK is complete.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

² MUS PERF 532 Advanced Conducting may be taken for this requirement only if it is taught by choral conducting faculty.

Organ Performance Track ¹

Code	Title	Credits
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Doctoral Level Organ Applied Study		16
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4 semesters, 4 credits each semester

MUS PERF 703	Doctoral Level-Organ
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Organ Literature		6
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MUSIC 591	Organ Literature and Design
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MUSIC 799	Independent Work
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Other Courses in the Major 4

MUS PERF 561	Organ Improvisation and Liturgy
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MUS PERF 562	Organ Improvisation and Liturgy
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Research Methods and Materials

MUSIC/L I S 619	Music Research Methods and Materials
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Musicology and Music Theory Courses 9

At least one course must be taken in Musicology and one in Music Theory. 9 credits must be earned at UW-Madison.

For a summary of the courses eligible for this requirement refer to the last table on this page: DMA: Courses Qualifying for Musicology and Music Theory Requirement

Doctoral Minor

9-12 credits in a field other than the major specialty. See the Doctoral Minors page or the Mead Witter School of Music Graduate Handbook for details.

Language Proficiency

One foreign language at intermediate level reading knowledge. French or German preferred. See Mead Witter School of Music Graduate Handbook for details on meeting the Foreign Language Proficiency.

Students should note that the course credits as described above total 50 at minimum (including 3 recitals). Up to an additional 1 credit (including recitals and DMA Research Project) may be needed to earn the degree minimum of 51 credits.

Preliminary Examinations

Preliminary Examinations occur in the semester all of the above requirements are fulfilled. See the Policies tab or, for full information on policies and procedures, the Mead Witter School of Music Graduate Handbook for full information.

After preliminary examinations continuous registration for exactly three research-related credits is required. This may include both degree recitals (MUS PERF 999) and Research (MUSIC 999).

Doctoral Performance and Research

This body of work, comprising degree recitals and the DMA Research Project, is the core of the DMA degree.

1. Recitals

5 recitals required. The recitals are: 1 solo recital, 1 ensemble recital, 1 lecture-recital (these before preliminary examinations); after preliminary examinations, 1 lecture-recital and 1 final solo recital.

Enroll for each recital as a separate 1-credit course.

MUS PERF 999	DMA Recital
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2. DMA Research Project

Enroll in 1-3 credits to bring course load total to 3 credits.

Oral Defense

The oral defense is held with the Doctoral Performance and Research Committee after ALL WORK is complete.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Percussion Track ¹

Code	Title	Credits
Doctoral Level Percussion Applied Study		16
4 semesters, 4 credits each semester		
MUS PERF 727	Doctoral Level Percussion	
Literature		2
MUSIC 550	Percussion Literature ²	
or MUSIC 540	Advanced Pedagogy	
Reference and Research Materials		3
MUSIC/L I S 619	Music Research Methods and Materials	

Musicology and Music Theory Courses 9

At least one course must be taken in Musicology and one in Music Theory. 9 credits must be earned at UW-Madison.

For a summary of the courses eligible for this requirement refer to the last table on this page: DMA: Courses Qualifying for Musicology and Music Theory Requirement

Doctoral Minor 9-12

9-12 credits in a field other than the major specialty. See the Doctoral Minors page or the Mead Witter School of Music Graduate Handbook for details.

Language Proficiency

One foreign language at intermediate level reading knowledge. French or German preferred. See Mead Witter School of Music Graduate Handbook for details on meeting the Foreign Language Proficiency.

Students should note that the course credits as described above total 42 at minimum (including 3 recitals). Up to an additional 9 credits (including recitals and DMA Research Project) may be needed to earn the degree minimum of 51 credits.

Preliminary Examinations

Preliminary Examinations occur in the semester all of the above requirements are fulfilled. See the Policies tab or, for full information on policies and procedures, the Mead Witter School of Music Graduate Handbook for full information.

After preliminary examinations continuous registration for exactly three research-related credits is required. This may include both degree recitals (MUS PERF 999) and Research (MUSIC 999).

Doctoral Performance and Research

This body of work, comprising degree recitals and the DMA Research Project, is the core of the DMA degree.

1. Recitals

There are 5 required recitals: 1 solo recital, 2 solo or solo/chamber recitals (one of which may be a concerto performance), these three before preliminary examinations; after preliminary examinations, 1 lecture-recital and 1 solo recital.

Enroll for each recital as a separate 1-credit course.

MUS PERF 999	DMA Recital
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2. DMA Research Project

Enroll in 1-3 credits to bring course load total to 3 credits.

Oral Defense

The oral defense to be scheduled with the Doctoral Performance and Research Committee after ALL WORK is complete.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

² For the MUSIC 540 Advanced Pedagogy option, the topic is Percussion Pedagogy.

Piano Performance Track ¹

Code	Title	Credits
Doctoral Level Piano Performance Applied Study		16
4 semesters, 4 credits each semester		
MUS PERF 701	Doctoral Level-Piano	
Literature		6
MUSIC 791	Seminar in Piano Literature	
MUSIC 791	Seminar in Piano Literature	
or MUSIC 796	Seminar in Duo Sonata Literature	
Reference and Research Materials		3
MUSIC/L I S 619	Music Research Methods and Materials	

Musicology and Music Theory Courses 9

At least one course must be taken in Musicology and one in Music Theory. 9 credits must be earned at UW-Madison.

For a summary of the courses eligible for this requirement refer to the last table on this page: DMA: Courses Qualifying for Musicology and Music Theory Requirement

Doctoral Minor 9-12

9-12 credits in a field other than the major specialty. See the Doctoral Minors page or the Mead Witter School of Music Graduate Handbook for details.

Language Proficiency

One foreign language at intermediate level reading knowledge. French or German preferred. See Mead Witter School of Music Graduate Handbook for details on meeting the Foreign Language Proficiency.

Students should note that the course credits as described above total 47 at minimum (including 4 recitals). Up to an additional 4 credits (including recitals and DMA Research Project) may be needed to earn the degree minimum of 51 credits.

Preliminary Examinations

Preliminary Examinations occur in the semester all of the above requirements are fulfilled. See the Policies tab or, for full information on policies and procedures, the Mead Witter School of Music Graduate Handbook for full information.

After preliminary examinations continuous registration for exactly three research-related credits is required. This may include both degree recitals (MUS PERF 999) and Research (MUSIC 999).

Doctoral Performance and Research

This body of work, comprising degree recitals and the DMA Research Project, is the core of the DMA degree.

1. Recitals

There are six required recitals: 1 Baroque-Classical, 1 Romantic, 1 Modern, 1 concerto performance, 1 ensemble recital, 1 final solo recital. One of these recitals (not the final solo recital) will be presented as a lecture recital. The lecture-recital and the final solo recital are presented after the preliminary examinations.

Enroll for each recital as a separate 1-credit course.

MUS PERF 999 DMA Recital

DMA Research Project

Enroll in 1-3 credits to bring course load total to 3 credits.

MUSIC 999 PhD Diss/DMA Project

Oral Defense

The oral defense to be scheduled with the Doctoral Performance and Research Committee after ALL WORK is complete.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Piano Performance and Pedagogy Track ¹

Code	Title	Credits
Doctoral Level Piano Applied Study		8
2 semesters, 4 credits each semester		
MUS PERF 701	Doctoral Level-Piano	
Piano Pedagogy		9
MUSIC 751	Seminar in Piano Pedagogy ²	
or MUSIC 799	Independent Work	
MUSIC 752	Piano Pedagogy Workshop ³	
MUSIC 560	Practicum in Advanced Studio Teaching-Piano	
Other Courses in the Major		
MUS PERF 542	Advanced Accompanying	2
or MUS PERF 742	Doctoral Level Private Instruction in Accompanying	
OR select from the following to total 2 credits		
MUS PERF 542	Advanced Accompanying	2-3
MUSIC 565	Advanced Ensemble-Woodwind	
MUSIC 567	Advanced Ensemble-Brass	
MUSIC 569	Advanced Ensemble-String	
Literature		3
MUSIC 791	Seminar in Piano Literature	
or MUSIC 796	Seminar in Duo Sonata Literature	
Reference and Research Materials		3
MUSIC/L I S 619	Music Research Methods and Materials	
Musicology and Music Theory Courses		9
At least one course must be taken in Musicology and one in Music Theory. 9 credits must be earned at UW-Madison.		
For a summary of the courses eligible for this requirement refer to the last table on this page: DMA: Courses Qualifying for Historical Musicology and Music Theory Requirement		
Doctoral Minor		9

9-12 credits in a field other than the major specialty. See the Doctoral Minors page or the Mead Witter School of Music Graduate Handbook for details.

Language Proficiency

One foreign language at intermediate level reading knowledge. French or German preferred. See Mead Witter School of Music Graduate Handbook for details on meeting the Foreign Language Proficiency.

Students should note that the course credits as described above total 41 at minimum (including 2 recitals). Up to an additional 10 credits (including recitals, MUSIC 752, and DMA Research Project) may be needed to earn the degree minimum of 51 credits.

Preliminary Examinations

Preliminary Examinations occur in the semester all of the above requirements are fulfilled. See the Policies tab or, for full information on policies and procedures, the Mead Witter School of Music Graduate Handbook for full information.

After preliminary examinations continuous registration for exactly three research-related credits is required. This may include both degree recitals (MUS PERF 999) and Research (MUSIC 999).

Doctoral Performance and Research

This body of work, comprising degree recitals and the DMA Research Project, is the core of the DMA degree.

1. Recitals

4 recitals are required. At least half of all recital repertoire must be solo. The lecture-recital and 1 additional recital may be performed after preliminary examinations.

Enroll for each recital as a separate 1-credit course. ⁴

2. DMA Research Project

Enroll in 1-3 credits to bring course load total to 3 credits.

MUSIC 999 PhD Diss/DMA Project

Oral Defense

The oral defense is to be scheduled with the Doctoral Performance and Research Committee after ALL WORK is complete.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

² With the MUSIC 799 Independent Work option, additional credits may be comprised of DANCE 560 Current Topics in Dance: Workshop (topic: Feldenkrais for Performing Artists) or MUSIC 497 Special Topics in Music (topic: Teaching Music in the Private Studio).

³ This course is usually taken as part of research, after preliminary examinations.

⁴ If collaborative repertoire is included in recitals, additional enrollment in MUS PERF 542 Advanced Accompanying or MUS PERF 742 Doctoral Level Private Instruction in Accompanying is recommended for that recital semester.

String Performance Track ¹

Code	Title	Credits
Doctoral Level Instrument Applied Study		16
4 semesters, 4 credits each semester		

Enroll for the course corresponding to the major instrument:²

MUS PERF 731	Doctoral Level-Violin
MUS PERF 733	Doctoral Level-Viola
MUS PERF 735	Doctoral Level-Cello
MUS PERF 740	Doctoral Level-Guitar

Reference and Research Materials 3

MUSIC/L I S 619	Music Research Methods and Materials
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Musicology and Music Theory Courses 9

At least one course must be taken in Musicology and one in Music Theory. 9 credits must be earned at UW-Madison.

For a summary of the courses eligible for this requirement refer to the last table on this page: DMA: Courses Qualifying for Musicology and Music Theory Requirement

Doctoral Minor 9-12

9-12 credits in a field other than the major specialty. See the Doctoral Minors page or the Mead Witter School of Music Graduate Handbook for details.

Language Proficiency

One foreign language at intermediate level reading knowledge. French or German preferred. See Mead Witter School of Music Graduate Handbook for details on meeting the Foreign Language Proficiency.

Students should note that the course credits as described above total 41 at minimum (including 4 recitals). Up to an additional 10c credits (including recitals and DMA Research Project) may be needed to earn the degree minimum of 51 credits.

Preliminary Examinations

Preliminary Examinations occur in the semester all of the above requirements are fulfilled. See the Policies tab or, for full information on policies and procedures, the Mead Witter School of Music Graduate Handbook for full information.

After preliminary examinations continuous registration for exactly three research-related credits is required. This may include both degree recitals (MUS PERF 999) and Research (MUSIC 999).

Doctoral Performance and Research

This body of work, comprising degree recitals and the DMA Research Project, is the core of the DMA degree.

1. Recitals

6 recitals are required: 1 sonata recital, 1 string chamber recital, 1 chamber music recital with piano, 1 concerto or unaccompanied recital, these before preliminary examinations; after preliminary examinations, 1 lecture-recital and 1 final solo recital.

Enroll for each recital as a separate 1-credit course.

MUS PERF 999	DMA Recital
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2. DMA Research Project

Enroll in 1-3 credits to bring course load total to 3 credits.

Oral Defense

The oral defense is to be scheduled with the Doctoral Performance and Research Committee after ALL WORK is complete.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

² For DMA students majoring in String Bass, consult the director of graduate studies on the course number.

Vocal Performance Track¹

Code	Title	Credits
Doctoral Level Voice Applied Study		16

4 semesters, 4 credits each semester

MUS PERF 705	Doctoral Level-Voice
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Other Courses in the Major

MUSIC 792	Seminar in Vocal Literature ^{2,3}	3
MUSIC 749	Seminar in Vocal Techniques ³	2
MUSIC 467 & MUSIC 468	Language Diction for Singing I and Language Diction for Singing II ³	4

Reference and Research Materials 3

MUSIC/L I S 619	Music Research Methods and Materials
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Musicology and Music Theory Courses 9

At least one course must be taken in Musicology and one in Music Theory. 9 credits must be earned at UW-Madison.

For a summary of the courses eligible for this requirement refer to the last table on this page: DMA: Courses Qualifying for Musicology and Music Theory Requirement

Doctoral Minor 9-12

9-12 credits in a field other than the major specialty. See the Doctoral Minors page or the Mead Witter School of Music Graduate Handbook for details.

Language Proficiency

The basis for doctoral study in voice one semester each of elementary French, German, and Italian at the college level. All students must meet this expectation and also continue college-level study to reach fluency comparable to two semesters in two of these languages (a total of five semesters of college-level study).

Consult the voice faculty and the director of graduate studies for information on ways in which the language proficiency requirement may be satisfied and certified by Mead Witter School of Music faculty or by other means.

Students should note that the course credits as described above total 50 at minimum (including 4 recitals). Up to one additional credit (including recitals and DMA Research Project) may be needed to earn the degree minimum of 51 credits.

Doctoral Performance and Research

This body of work, comprising degree recitals and the DMA Research Project, is the core of the DMA degree.

1. Performance

6 performance credits are required. 4 of the credits may be satisfied with the following:

MUS PERF 999	DMA Recital (minimum 2 performances, maximum 4)	1
MUSIC 556	University Opera (a major opera role) ⁴	2

MUSIC 556	University Opera (secondary opera role) ⁴	1
MUS PERF 999	DMA Recital (major oratorio role) ⁴	1

Remaining required performances follow the preliminary examinations:

MUS PERF 999	DMA Recital (lecture-recital)	1
MUS PERF 999	DMA Recital (final solo recital, prepared independently)	1

2. DMA Research Project

Enroll in 1-3 credits to bring course load total to 3 credits.

Oral Defense

The oral defense is to be scheduled with the Doctoral Performance and Research Committee after ALL WORK is complete.

- ¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.
- ² MUSIC 346 Repertoire or equivalent is a prerequisite for this course. Consult the graduate office or the voice faculty for information on the schedule for planned offerings of this course.
- ³ Consult the graduate office or the voice faculty for information on the schedule for planned offerings of this course.
- ⁴ Approval by the director of opera and voice area is required.

Wind Conducting Track¹

Code	Title	Credits
Doctoral Level Conducting Applied Study		8
4 semesters, 2 credits each semester		
MUS PERF 732	Doctoral Level Conducting	
Choral Conducting		2
MUSIC 553	Advanced Conducting Seminar	
or MUSIC 554	Advanced Conducting	
Reference and Research Materials		3
MUSIC/L I S 619	Music Research Methods and Materials	

Musicology and Music Theory Courses

At least one course must be taken in Musicology and one in Music Theory. 9 credits must be earned at UW-Madison.

For a summary of the courses eligible for this requirement refer to the last table on this page: DMA: Courses Qualifying for Musicology and Music Theory Requirement

Doctoral Minor

9-12

9-12 credits in a field other than the major specialty. See the Doctoral Minors page or the Mead Witter School of Music Graduate Handbook for details.

Language Study

One foreign language at intermediate level reading knowledge. French or German preferred. See Mead Witter School of Music Graduate Handbook for details on meeting the Foreign Language Proficiency.

Students should note that the course credits as described above total 35 at minimum (including 4 recitals). Up to an additional 16 credits (including recitals and DMA research project) may be needed to earn the degree minimum of 51 credits.

Preliminary Examinations

Preliminary Examinations occur in the semester all of the above requirements are fulfilled. See the Policies tab or, for full information on policies and procedures, the Mead Witter School of Music Graduate Handbook for full information.

After preliminary examinations continuous registration for exactly three research-related credits is required.

Doctoral Performance and Research

This body of work, comprising degree recitals and the DMA Research Project, is the core of the DMA degree.

1. Recitals

5 recitals are required. The major professor will set specific expectations and parameters for the recitals. 4 recitals are typically performed prior to preliminary examinations.

Enroll for each recital as a separate 1-credit course.

MUS PERF 999	DMA Recital
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2. DMA Research Project

Enroll in 1-3 credits to bring course load total to 3 credits.

MUSIC 999	PhD Diss/DMA Project
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Enroll in 1-3 credits to bring course load total to 3 credits.

Oral Defense

The oral defense is to be scheduled with the Doctoral Performance and Research Committee after ALL WORK is complete.

- ¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Woodwind Performance Track¹

Code	Title	Credits
Doctoral Level Instrument Applied Study		16
4 semesters, 4 credits each semester		
Enroll for the course corresponding to the major instrument:		
MUS PERF 707	Doctoral Level-Flute	
MUS PERF 709	Doctoral Level-Oboe	
MUS PERF 711	Doctoral Level-Clarinet	
MUS PERF 713	Doctoral Level-Saxophone	
MUS PERF 715	Doctoral Level-Bassoon	

Reference and Research Materials

3

MUSIC/L I S 619	Music Research Methods and Materials
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Musicology and Music Theory Courses

At least one course must be taken in Musicology and one in Music Theory. 9 credits must be earned at UW-Madison.

For a summary of the courses eligible for this requirement refer to the last table on this page: DMA: Courses Qualifying for Musicology and Music Theory Requirement

Doctoral Minor

9-12 credits in a field other than the major specialty. See the Doctoral Minors page or the Mead Witter School of Music Graduate Handbook for details.

Language Proficiency

One foreign language at intermediate level reading knowledge. French or German preferred. See Mead Witter School of Music Graduate Handbook for details on meeting the Foreign Language Proficiency.

Students should note that the course credits as described above total 40 at minimum (including 3 recitals). Up to 11 additional credits (including recitals and DMA Research Project) may be needed to earn the degree minimum of 51 credits.

Preliminary Examinations

Preliminary Examinations occur in the semester all of the above requirements are fulfilled. See the Policies tab or, for full information on policies and procedures, the Mead Witter School of Music Graduate Handbook for full information.

After preliminary examinations continuous registration for exactly three research-related credits is required. This may include both degree recitals (MUS PERF 999) and Research (MUSIC 999).

Doctoral Performance and Research

This body of work, comprising degree recitals and the DMA Research Project, is the core of the DMA degree.

1. Recitals

5 recitals are required: 1 solo recital, 2 ensemble performances in which the major woodwind instrument plays a prominent role, these before preliminary examinations; after preliminary examinations, 1 lecture-recital and 1 final solo recital.

Enroll for each recital as a separate 1-credit course.

MUS PERF 999 DMA Recital

2. DMA Research Project

Enroll in 1-3 credits to bring course load total to 3 credits.

MUSIC 999 PhD Diss/DMA Project

Enroll in 1-3 credits to bring course load total to 3 credits.

Oral Defense

The oral defense is to be scheduled with the Doctoral Performance and Research Committee after ALL WORK is complete.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

DMA Courses Qualifying for Musicology and Music Theory Requirements

Code	Title	Credits
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This list of approved courses is valid for all DMA major tracks EXCEPT Composition. Refer to the Requirements table, Composition track for details.

For all DMA programs 9 credits of Musicology and Music Theory courses are required. These courses must be taken at UW-Madison. Previous coursework at another institution cannot substitute for any part of this 9-credit requirement.

Musicology Courses

Eligible musicology courses include the following:

MUSIC/ AFROAMER 400	Music Cultures of the World: Africa, Europe, the Americas	3
MUSIC/ FOLKLORE 401	Musical Cultures of the World	3
MUSIC/ FOLKLORE 402	Musical Cultures of the World	3
MUSIC/ FOLKLORE 404	Music of S.E. Asia: Tradition, Innovation, Politics, and Religion	3
MUSIC 405	Seminar: Cultural Study of Music	3
MUSIC 411	Survey of Music in the Middle Ages	3
MUSIC 412	Survey of Music in the Renaissance	3
MUSIC 413	Survey of Music in the Baroque Era	3
MUSIC 414	Survey of Music in the Classic Era	3
MUSIC 415	Survey of Music in the Romantic Era	3
MUSIC 416	Survey of Music in the Twentieth Century	3
MUSIC 419	Music in the United States	3
MUSIC 497	Special Topics in Music (topic approval by musicology faculty required)	3
MUSIC/ AFROAMER 509	Seminar in Afro-American Music History and Criticism	3
MUSIC 511	Historical Performance Practices	3
MUSIC 513	Survey of Opera	3
MUSIC/ FOLKLORE 515	Proseminar in Ethnomusicology	3
MUSIC 821	Historical Music Theories 1	3
MUSIC 822	Historical Music Theories 2	3
MUSIC 911	Seminar in Musicology	3
MUSIC 923	Seminar in Notation	3

Other courses do not fulfill this requirement unless specifically approved by the musicology faculty.

Music Theory Courses

Eligible music theory courses include the following:

MUSIC 331	Jazz Improvisation	3
MUSIC 497	Special Topics in Music (topic approval by music theory faculty required)	1-3
MUSIC 523	Orchestration I	3
MUSIC 621	Renaissance Polyphony	3
MUSIC 622	Baroque Counterpoint	3
MUSIC 623	Form and Analysis	2-3
MUSIC 624	Form and Analysis II	2-3
MUSIC 725	Music Theory Pedagogy	3
MUSIC 821	Historical Music Theories 1	3
MUSIC 822	Historical Music Theories 2	3
MUSIC 823	Schenkerian Analysis	3
MUSIC 824	Post-tonal Analysis	3
MUSIC 921	Current Issues in Musical Thought 1	3
MUSIC 926	Topics in Music Analysis 2	3
MUSIC 927	Seminar in Composition	3

Other courses do not fulfill this requirement unless specifically approved by the music theory faculty.

Third Course: Music Education Course Option

For DMA students who have taken 1 musicology and 1 music theory course, there is an option to include, as the third course, one of the following music education courses:

CURRIC 945	Seminar in Music Education	2-3
CURRIC 946	Past Perspectives on Music Education	3
CURRIC 947	Current Issues in Music Education	3
CURRIC 948	Diversity Issues in Music Teaching	3

POLICIES**GRADUATE SCHOOL POLICIES**

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES**GRADUATE PROGRAM HANDBOOK**

The Graduate Program Handbook (<http://www.music.wisc.edu/wp-content/uploads/2014/05/SOM-Grad-Handbook-1.pdf>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK**Graduate Work from Other Institutions**

No more than 6 credits may be approved for graduate coursework taken at other institutions.

UW–Madison Undergraduate

The Graduate School allows departments to review requests to count up to 7 credits of undergraduate work at UW–Madison toward graduate program requirements, but this is rarely approved by the School of Music faculty.

UW–Madison University Special

Some students may have completed coursework at 300-level or above at UW–Madison as a Special Student; with program approval coursework so taken may be considered to fulfill up to 6 credits of graduate program requirements. However the Graduate School mandates that fees be paid in these cases.

PROBATION

DMA Students who fail to make satisfactory progress in any of the following four areas: Grades, Course Load, Time Constraints, or Exams will be notified in writing by the DGS. At the end of the second semester of failing to make satisfactory progress the student is placed on Probation effective the next semester. This action suspends financial aid (but does not affect loans or work-study). See details in the Satisfactory Progress for Doctoral Students (<http://uwsom.wpengine.com/wp-content/uploads/2014/05/DoctoralSatisfactoryProgressDocument.pdf>).

ADVISOR / COMMITTEE

All programs provide for faculty from several disciplines to follow the student's progress through the degree, provide mentorship

along the way, and assess the student's success in reaching expected learning outcomes. Committee structures differ among degrees and majors.

DMA students have a doctoral performance and research committee. This group of four faculty follows the student's work throughout the degree work, evaluating degree recitals as well as the doctoral research project. The committee also serves as the examination committee. The DPRC is comprised of the major professor and at least three others, two of whom must be graduate faculty and one of whom must be from a program that is not the major.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Graduate students in DMA or Ph.D. programs are allowed a maximum of four calendar years from the date entering the program to complete all course work requirements and successfully pass the preliminary examinations. The candidate must complete the dissertation (Ph.D.) or doctoral performance and research (DMA) within five years after passing the preliminary examinations.

OTHER

n/a

PROFESSIONAL DEVELOPMENT**GRADUATE SCHOOL RESOURCES**

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Produces public performances of cohesive programs of music in which original ideas are communicated clearly and energetically.
2. Creates compositions and/or performances that clearly reflect well-developed original musical ideas.
3. Applies deep knowledge of technique, style, and cultural contexts to performance or creation of music.
4. Effectively expresses ideas both verbally and in writing so as to foster understanding among colleagues.
5. Demonstrates breadth within learning experience in an area of study outside the principal field of performance or composition.
6. Fosters ethical and professional conduct both in individual creative work and in collaborative endeavors.

PEOPLE

Faculty: Professors Cook (director), Blasius, Calderón, Chisholm, Crook, DiSanza, Dill, Doing, Fischer, Fulmer, Hetzler, Hyer, Johnson, Karp, Koza, Leckrone, Perry, Rowe, Schaffer, Schwendinger, Stowe, Swack, B. Taylor,

C. Taylor, Teeple, Thimmig, Vardi, Vallon; Associate Professors Dobbs, Grabois, Wallmann; Assistant Professors Altino, Lee, Ronis

The faculty of the Mead Witter School of Music is a distinguished group of educators, performing musicians, and active scholars. The backgrounds of performance faculty include rich experiences as professional musicians, researchers, recording artists, and entrepreneurs. Faculty in music education have particular insight into their field as a result of their backgrounds as school educators, performers, and scholars. In areas such as music theory and musicology, the musical community has high regard for the past and current contributions to the study of musical theory, historical perspectives on music, the role of music in societies around the world, and the unique contributions of American musicians. Teaching is a priority for the faculty, who are readily accessible to students for advice and support. Faculty, staff, and students cooperate in extraordinary ways with joint ventures that reach across disciplines both in research or instruction.

ACCREDITATION

ACCREDITATION

National Association of Schools of Music (<https://nasm.arts-accredit.org>)

Accreditation status: Accredited. Next accreditation review: 2022–2023

MUSIC: PERFORMANCE, M.M.

The mission of the Mead Witter School of Music is:

- to provide a rich, integrated program of undergraduate and graduate education that promotes the highest levels of professional, creative, and scholarly development while challenging students to achieve their greatest potential;
- to cultivate an environment that inspires creativity, stimulates intellectual curiosity, and fosters critical thinking; and
- to serve the university community, the public, and the profession through performance, composition, scholarship, music education, outreach, and engagement.

The Mead Witter School of Music enriches students' educational experience by hosting guest artists and scholars for master classes, recitals, colloquia, seminars, and festivals. Its performing organizations and ensembles perform more than 350 recitals and concerts every year, making a significant contribution to the cultural life of the university and the wider Madison community.

Mead Witter School of Music views its goals and objectives as complementary to those of the University of Wisconsin–Madison, which include "to provide an environment in which faculty and students can discover, examine critically, preserve and transmit the knowledge, wisdom and values that will help ensure the survival of the present and future generations with improvement in the quality of life."

The University of Wisconsin–Madison School of Music is accredited by the National Association of Schools of Music (NASM), and has been an institutional member of NASM since 1966.

DEGREES AND MAJORS

The master of music in music: performance is offered with majors in brass; composition; guitar; percussion; piano performance; collaborative piano; piano performance and pedagogy; organ; string performance; vocal performance; opera; woodwinds; multiple woodwinds; choral conducting; orchestral conducting; wind conducting.

A double master's degree with the School of Library and Information Studies is also offered.

After completing their degree, some master's degree students may be interested in application to the DMA (doctor of musical arts) program. Entrance to the DMA program is upon recommendation of the faculty of the relevant performance area and usually requires an audition. No new application to the Graduate School or to the Mead Witter School of Music is required.

The DMA (doctor of musical arts) and the Ph.D. are the highest degrees conferred by the Mead Witter School of Music. The DMA is granted for evidence of general proficiency and distinctive attainment in a specialized field of performance. The student's ability in independent investigation is demonstrated through a series of recitals and in a final project presenting original research or creative scholarship.

Master's degrees require a minimum of 30 credits. Each degree track varies slightly, and details are provided in the course lists available through the Requirements tab. Contact the Mead Witter School of Music graduate office, gradadmissions@music.wisc.edu, for complete explanations of the M.M.–music: performance degree.

The M.M.–music performance degree offers tracks for many major specialties, instrumental and vocal. Faculty members in the appropriate area designate a major professor for each new student the first semester of enrollment. Whenever possible the faculty strive to match the student with the major professor if the applicant to the program has indicated a preference.

Students normally take four semesters (two calendar years) to complete the degree requirements, including the final recital. There are two committees of faculty that assess the student's achievement of learning outcomes: the recital committee and the examination committee. The student consults with the major professor to determine the membership of the recital committee. The examination committee administers the comprehensive examination in the final semester in which the student fulfills course requirements. More details are accessible through the Policies (p. 1008) tab or in the Mead Witter School of Music Graduate Handbook. (<http://www.music.wisc.edu/wp-content/uploads/2014/05/SOM-Graduate-Handbook-Booklet-jrdrev-2.pdf>)

A summary of some important academic policies are available through the Policies tab. A more complete document, the Mead Witter School of Music Graduate Handbook, lists all academic policies and procedures in music graduate programs. All students need to be familiar with the Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>).

Mentoring of students is of prime importance to faculty members at Mead Witter School of Music. The faculty advisor and the director of graduate studies both guide the student's course planning. While each faculty member has a unique style, every student can be assured of abundant time working closely with more than one mentor in addition to the advisor during the course of a UW-Madison degree program. Take some time to access the Overview tab and review the Mead Witter School

of Music mission statement, as well as the information available through the Learning Outcomes (p. 1009) tab. These offer a glimpse of the values shared among the faculty and staff.

ADMISSIONS

Minimum admission requirements of the Graduate School apply to all applicants for graduate study in music. The Mead Witter School of Music has additional requirements. Applicants should have a bachelor's degree in music or equivalent foundational course work as required by each area of study. An undergraduate GPA of 3.0 (on a 4.0 scale, calculated on the last 60 credit hours) is necessary for full admission. The M.M. program involves substantial academic work and requires excellent reading, writing, and speaking skills. Therefore, all international students are required to submit a TOEFL score. See the Mead Witter School of Music graduate admissions website (<http://www.music.wisc.edu/admissions/graduate>) for information on minimum score requirements. The Mead Witter School of Music does **not** waive the TOEFL score requirement for students who have completed a degree at an American university. Typically, performance applicants are required to audition in person. For details on specific audition requirements and additional application materials, visit the School of Music graduate admissions website (<http://www.music.wisc.edu/admissions/graduate>).

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Through the generosity of Paul J. Collins, the Mead Witter School of Music is the recipient of a substantial fellowship fund which, in combination with the Graduate School and University Foundation, allows the school to offer multiple-year funding to the highest quality graduate students in performance. The Collins fellowships, along with The Lorna Wendt and Anonymous Fund Fellowships for Choral and Voice students are offered as Wisconsin Distinguished Fellowships and provide full tuition and fees, a generous stipend, additional funds, and comprehensive health care. Nomination by a performance faculty member—usually following an on-site audition—is required for consideration.

The Mead Witter School of Music also offers teaching and project assistantships in music history, music theory, piano, conducting, voice, and other performance areas. These positions offer tuition remission plus a salary and health care benefits. In addition, the Mead Witter School of Music selects qualified applicants for the Chancellor's Fellowship, University Fellowship, and Advanced Opportunity Fellowship. The UW-Madison Office of Student Financial Services assists students in

obtaining general grants and loans. All Mead Witter School of Music students who receive funding are required to enroll full-time with 8–12 graduate credits.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.25 GPA required.

Other Grade Requirements Graduate students at UW–Madison must meet expectations for satisfactory progress toward completion of the degree while enrolled. In School of Music graduate programs, a graduate student must maintain a cumulative grade point average (GPA) of 3.25. Even though grades below B do not count for graduate credit toward the degree, those grades are included in computation of the GPA.

In the first semester in which the cumulative GPA falls below 3.25 the director of graduate studies will notify the student in writing. After a second semester in which the GPA remains below 3.25 the student will be placed on probation for the next semester enrolled. This action suspends all financial aid awards through UW–Madison, though loans and work-study are not affected. Failure to raise the GPA to 3.25 or above in the probation semester results in the student's withdrawal from the Graduate School and from the School of Music program.

To maintain satisfactory progress School of Music students on UW–Madison funding (teaching assistants, project assistants, fellows, and scholarship recipients) must maintain full-time status. A student's satisfactory progress is also in jeopardy should a major project or recital be judged incomplete or deficient. Failure of one or more parts of the comprehensive examinations, preliminary examinations, or final defense is also considered a lapse in satisfactory progress.

Assessments and Examinations In addition to evaluations in individual classes, School of Music programs examine graduate students at defined points in their career.

For master's students, comprehensive examinations measure the candidate's range of musical knowledge in both fields of music history and the major.

Language Requirements All School of Music doctoral programs require proficiency at the intermediate level in at least one foreign language. The Historical Musicology track requires proficiency in German. Foreign language proficiency assures that the student has the tools needed to pursue comprehensive research in the major field. Details on foreign language requirements and ways to fulfill proficiency expectations are outlined in the course lists available through the Requirements tab for each degree. This information is also available in the advising worksheets for each degree major track.

REQUIRED COURSES

The following chart outlines the course requirements for all of the available M.M.–music performance degrees. Note that each one has particular requirements, and that the total credits vary among majors. Important academic policy information is available through the Policies tab, in the Mead Witter School of Music Graduate Handbook (<http://www.music.wisc.edu/wp-content/uploads/2014/05/SOM-Graduate-Handbook-Booklet-jrdrev-2.pdf>), and in the Graduate School's Academic Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>). You may direct any questions about the coursework or required proficiencies to the Mead Witter School of Music graduate admissions office, gradadmissions@music.wisc.edu.

Brass Track ¹

Code	Title	Credits
Master's Level Brass Instrument Applied Study		8
Select the course corresponding to the major instrument (2 semesters minimum, 4 credits each semester)		
MUS PERF 517	Masters Level-Horn	
MUS PERF 519	Masters Level-Trumpet	
MUS PERF 521	Masters Level-Trombone	
MUS PERF 523	Masters Level-Euphonium	
MUS PERF 525	Masters Level-Tuba	
Master's Recital		4
Enroll in this course in place of Applied Study in the recital semester.		
MUS PERF 990	Masters Recital	
Ensemble		4
Enroll in an ensemble every semester. ²		
MUSIC 567	Advanced Ensemble-Brass ³	
MUSIC 573	Contemporary Chamber Ensemble	
MUSIC 565	Advanced Ensemble-Woodwind (horn majors only)	
Organizations		2
2 semesters, 1 credit each		
Eligible courses include the following:		
MUSIC 570	University Symphony Orchestra	
MUSIC 571	Chamber Orchestra	
MUSIC 574	Wind Ensemble	
MUSIC 576	Concert Band	
Instrumental Literature		2
MUSIC 798	Seminar-Instrumental Literature ⁴	
Musicology and Music Theory		9
9 credits must be earned at UW-Madison.		
Eligible musicology courses include: ⁵		
MUSIC/ AFROAMER 400	Music Cultures of the World: Africa, Europe, the Americas	
MUSIC/ FOLKLORE 401	Musical Cultures of the World	
MUSIC/ FOLKLORE 402	Musical Cultures of the World	
MUSIC/ FOLKLORE 404	Music of S.E. Asia: Tradition, Innovation, Politics, and Religion	
MUSIC 405	Seminar: Cultural Study of Music	
MUSIC 411	Survey of Music in the Middle Ages	
MUSIC 412	Survey of Music in the Renaissance	
MUSIC 413	Survey of Music in the Baroque Era	
MUSIC 414	Survey of Music in the Classic Era	
MUSIC 415	Survey of Music in the Romantic Era	
MUSIC 416	Survey of Music in the Twentieth Century	
MUSIC 419	Music in the United States	
MUSIC 497	Special Topics in Music (if topic approved by musicology faculty)	
MUSIC/ AFROAMER 509	Seminar in Afro-American Music History and Criticism	

MUSIC 511	Historical Performance Practices
MUSIC 513	Survey of Opera
MUSIC 620	Proseminar in Musicology
MUSIC 909	
MUSIC 911	Seminar in Musicology
MUSIC/ FOLKLORE 915	Seminar in Ethnomusicology
MUSIC 923	Seminar in Notation
<i>Eligible courses in music theory include:</i> ⁶	
MUSIC 331	Jazz Improvisation (one semester)
MUSIC 497	Special Topics in Music (approval of topic by music theory faculty required)
MUSIC 523	Orchestration I
MUSIC 524	Orchestration II
MUSIC 621	Renaissance Polyphony
MUSIC 622	Baroque Counterpoint
MUSIC 623	Form and Analysis
MUSIC 624	Form and Analysis II
MUSIC 725	Music Theory Pedagogy
MUSIC 821	Historical Music Theories 1
MUSIC 822	Historical Music Theories 2
MUSIC 823	Schenkerian Analysis
MUSIC 824	Post-tonal Analysis
MUSIC 921	Current Issues in Musical Thought 1
MUSIC 925	Topics in Music Analysis 1
MUSIC 926	Topics in Music Analysis 2
MUSIC 927	Seminar in Composition
Elective Courses	1
With advisor approval, choose courses in the School of Music at 300 level or above.	
For information on Comprehensive Examinations and Committees please refer to the summary through the Policies tab; for full details consult the Mead Witter School of Music Graduate Handbook.	
Total Credits	30

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

² Other courses do not fulfill this requirement unless first approved by the Brass area faculty. Each ensemble may be taken for two semesters.

³ Sections of this course that are eligible include: Brass Quintet, Horn Choir, Tuba Quartet/Ensemble, Trumpet Ensemble, Trombone Choir/Quartet. Each ensemble may be taken for two semesters. Note that the courses MUSIC 573 Contemporary Chamber Ensemble and MUSIC 565 Advanced Ensemble-Woodwind may also fulfill this requirement. Other courses do not fulfill this requirement unless first approved by the Brass area faculty.

⁴ MUSIC 799 Independent Work (two credits) or two semesters of MUSIC 567 Advanced Ensemble-Brass (1 credit) may also be eligible, with approval of major professor.

⁵ Other courses do not fulfill this requirement unless specifically approved by the musicology faculty.

⁶ Other courses do not fulfill this requirement unless specifically approved by the music theory faculty.

Choral Conducting Track¹

Code	Title	Credits
Conducting Applied Study		8
2 semesters minimum, 4 credits each semester		
MUS PERF 532	Advanced Conducting (2 semesters minimum, 4 credits each semester)	
Other Required Major Courses		6
MUSIC 553	Advanced Conducting Seminar (3 semesters required)	
MUSIC 541	Seminar in Choral Literature (2 semesters required)	
Recital		1
MUS PERF 990	Masters Recital	
Musicology and Music Theory		9
At least one course must be taken in Musicology and one in Music Theory. 9 credits must be earned at UW-Madison		
Eligible musicology courses include: ²		
MUSIC/ AFROAMER 400	Music Cultures of the World: Africa, Europe, the Americas	
MUSIC/ FOLKLORE 401	Musical Cultures of the World	
MUSIC/ FOLKLORE 402	Musical Cultures of the World	
MUSIC/ FOLKLORE 404	Music of S.E. Asia: Tradition, Innovation, Politics, and Religion	
MUSIC 405	Seminar: Cultural Study of Music	
MUSIC 411	Survey of Music in the Middle Ages	
MUSIC 412	Survey of Music in the Renaissance	
MUSIC 413	Survey of Music in the Baroque Era	
MUSIC 414	Survey of Music in the Classic Era	
MUSIC 415	Survey of Music in the Romantic Era	
MUSIC 416	Survey of Music in the Twentieth Century	
MUSIC 419	Music in the United States	
MUSIC 497	Special Topics in Music (approval of topic by musicology faculty required)	
MUSIC/ AFROAMER 509	Seminar in Afro-American Music History and Criticism	
MUSIC 511	Historical Performance Practices	
MUSIC 513	Survey of Opera	
MUSIC/ FOLKLORE 515	Proseminar in Ethnomusicology	
MUSIC 620	Proseminar in Musicology	
MUSIC 909		
MUSIC 911	Seminar in Musicology	
MUSIC/ FOLKLORE 915	Seminar in Ethnomusicology	
MUSIC 923	Seminar in Notation	
Eligible music theory courses include the following: ³		
MUSIC 331	Jazz Improvisation	

MUSIC 497	Special Topics in Music (approval of topic by music theory faculty required)	
MUSIC 523	Orchestration I	
MUSIC 524	Orchestration II	
MUSIC 621	Renaissance Polyphony	
MUSIC 622	Baroque Counterpoint	
MUSIC 623	Form and Analysis	
MUSIC 624	Form and Analysis II	
MUSIC 725	Music Theory Pedagogy	
MUSIC 821	Historical Music Theories 1	
MUSIC 822	Historical Music Theories 2	
MUSIC 823	Schenkerian Analysis	
MUSIC 824	Post-tonal Analysis	
MUSIC 921	Current Issues in Musical Thought 1	
MUSIC 925	Topics in Music Analysis 1	
MUSIC 926	Topics in Music Analysis 2	
MUSIC 927	Seminar in Composition	
Elective courses		4

Choose any courses in the School of Music at 300 level or above.

For information on Comprehensive Examinations and Committees please refer to the summary through the Policies tab; for full details consult the Mead Witter School of Music Graduate Handbook.

For information on Comprehensive Examinations and Committees please refer to the summary through the Policies tab; for full details consult the Mead Witter School of Music Graduate Handbook.

Total Credits 28

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

² Other courses do not fulfill this requirement unless specifically approved by the musicology faculty.

³ Other courses do not fulfill this requirement unless specifically approved by the music theory faculty.

Collaborative Piano Track ¹

Code	Title	Credits
Applied Study		8
4 semesters minimum, 2 credits each semester.		
MUS PERF 542	Advanced Accompanying	
Recitals		2
Two recitals: 1 vocal, 1 instrumental; 1 credit each		
MUS PERF 990	Masters Recital	
MUS PERF 990	Masters Recital	
Vocal and Instrumental Accompanying		8-11
MUS PERF 342	Piano Accompanying Lab (2 semesters required) ²	
MUSIC 796	Seminar in Duo Sonata Literature	

For emphasis in Vocal Accompanying the following three courses are required:

MUSIC 467	Language Diction for Singing I	
MUSIC 468	Language Diction for Singing II	
MUSIC 557	Opera Workshop	
For emphasis in Instrumental Accompanying the following two courses are required:		
MUSIC 466	Diction for Singers	
plus 1 semester from the following courses:		
MUSIC 561	Advanced Ensemble-Piano	
MUSIC 565	Advanced Ensemble-Woodwind	
MUSIC 567	Advanced Ensemble-Brass	
MUSIC 568	Advanced Ensemble-Percussion	
MUSIC 569	Advanced Ensemble-String	
Vocal Literature		2
MUSIC 346	Repertoire (Vocal Repertoire, 2 credits) ³	
	or MUSIC 792 Seminar in Vocal Literature	
Musicology and Music Theory Courses		9
At least one course must be taken in Musicology and one in Music Theory. 9 credits must be earned at UW-Madison.		
Eligible musicology courses include the following: ⁴		
MUSIC/AFROAMER 400	Music Cultures of the World: Africa, Europe, the Americas	
MUSIC/FOLKLORE 401	Musical Cultures of the World	
MUSIC/FOLKLORE 402	Musical Cultures of the World	
MUSIC/FOLKLORE 404	Music of S.E. Asia: Tradition, Innovation, Politics, and Religion	
MUSIC 405	Seminar: Cultural Study of Music	
MUSIC 411	Survey of Music in the Middle Ages	
MUSIC 412	Survey of Music in the Renaissance	
MUSIC 413	Survey of Music in the Baroque Era	
MUSIC 414	Survey of Music in the Classic Era	
MUSIC 415	Survey of Music in the Romantic Era	
MUSIC 416	Survey of Music in the Twentieth Century	
MUSIC 419	Music in the United States	
MUSIC 497	Special Topics in Music (topic approved by musicology faculty)	
MUSIC/AFROAMER 509	Seminar in Afro-American Music History and Criticism	
MUSIC 511	Historical Performance Practices	
MUSIC 513	Survey of Opera	
MUSIC/FOLKLORE 515	Proseminar in Ethnomusicology	
MUSIC 620	Proseminar in Musicology	
MUSIC 821	Historical Music Theories 1	
MUSIC 822	Historical Music Theories 2	
MUSIC 911	Seminar in Musicology	
MUSIC/FOLKLORE 915	Seminar in Ethnomusicology	
MUSIC 923	Seminar in Notation	

Eligible music theory courses include the following: ⁵

MUSIC 331	Jazz Improvisation
MUSIC 497	Special Topics in Music (approval of topic by music theory faculty required)
MUSIC 523	Orchestration I
MUSIC 621	Renaissance Polyphony
MUSIC 622	Baroque Counterpoint
MUSIC 623	Form and Analysis
MUSIC 624	Form and Analysis II
MUSIC 725	Music Theory Pedagogy
MUSIC 821	Historical Music Theories 1
MUSIC 822	Historical Music Theories 2
MUSIC 823	Schenkerian Analysis
MUSIC 824	Post-tonal Analysis
MUSIC 921	Current Issues in Musical Thought 1
MUSIC 925	Topics in Music Analysis 1
MUSIC 926	Topics in Music Analysis 2
MUSIC 927	Seminar in Composition

Elective courses⁶ 1

With advisor approval, choose courses in the School of Music at 300 level or above.

For information on Comprehensive Examinations and Committees please refer to the summary through the Policies tab; for full details consult the Mead Witter School of Music Graduate Handbook.

Total Credits 30-33

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

² This course requirement is waived for students with a TA or PA appointment in accompanying.

³ Contact the graduate office or the voice faculty for information on the schedule for planned offerings of these courses.

⁴ Other courses do not fulfill this requirement unless specifically approved by the musicology faculty.

⁵ Other courses do not fulfill this requirement unless specifically approved by the music theory faculty.

⁶ Elective course credits should bring the total number of School of Music course credits to a minimum of 30.

Composition Track¹

Code	Title	Credits
Composition Applied Study		9
3 semesters minimum, 3 credits each semester		
MUS PERF 547	Masters Level Composition	
MUS PERF 548	Masters Level Composition	

Attendance at Composition Master Class is required of students enrolled in Master's-Level Composition.

Thesis-Composition (Project) 3

To be taken in the final semester of study, after three semesters of the above composition courses are completed. Attendance at Composition Master Class is required of composition majors enrolled in Master's Thesis.

MUSIC 990	Masters Thesis
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Courses in Musicology 6

Eligible musicology courses include:²

MUSIC 411	Survey of Music in the Middle Ages
MUSIC 412	Survey of Music in the Renaissance
MUSIC 413	Survey of Music in the Baroque Era
MUSIC 414	Survey of Music in the Classic Era
MUSIC 415	Survey of Music in the Romantic Era
MUSIC 416	Survey of Music in the Twentieth Century
MUSIC 419	Music in the United States
MUSIC 497	Special Topics in Music (approval of topic by musicology faculty required)
MUSIC 511	Historical Performance Practices
MUSIC 513	Survey of Opera
MUSIC 911	Seminar in Musicology

Courses in Music Theory 6

Eligible music theory courses include the following:³

MUSIC 331	Jazz Improvisation
MUSIC 497	Special Topics in Music
MUSIC 621	Renaissance Polyphony
MUSIC 622	Baroque Counterpoint
MUSIC 623	Form and Analysis
MUSIC 624	Form and Analysis II
MUSIC 821	Historical Music Theories 1
MUSIC 822	Historical Music Theories 2
MUSIC 823	Schenkerian Analysis
MUSIC 824	Post-tonal Analysis
MUSIC 921	Current Issues in Musical Thought 1
MUSIC 925	Topics in Music Analysis 1
MUSIC 926	Topics in Music Analysis 2

Composition Electives⁴ 6

MUSIC 523	Orchestration I
MUSIC 927	Seminar in Composition (topics course; may be repeated for credit)

For information on Comprehensive Examinations and Committees please refer to the summary through the Policies tab; for full details consult the Mead Witter School of Music Graduate Handbook.

Total Credits 30

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

² Other courses do not fulfill this requirement unless specifically approved by the musicology faculty.

³ Other courses do not fulfill this requirement unless specifically approved by the music theory faculty.

⁴ Other courses may be eligible for this requirement, by approval of the major professor.

Guitar Track¹

Code	Title	Credits
Master's Level Guitar Applied Study		8
2 semesters, 4 credits each semester		
MUS PERF 540	Masters Level-Guitar	
Recital		4
Enroll in this course in place of Master's Level Applied Study in the recital semester.		
MUS PERF 990	Masters Recital	
Ensemble		2
2 semesters		
MUSIC 572	Advanced Ensemble-Classical Guitar	
Musicology and Music Theory Courses		9
At least one course must be taken in Musicology and one in Music Theory. 9 credits must be earned at UW-Madison.		
Eligible musicology courses include the following: ²		
MUSIC/ AFROAMER 400	Music Cultures of the World: Africa, Europe, the Americas	
MUSIC/ FOLKLORE 401	Musical Cultures of the World	
MUSIC/ FOLKLORE 402	Musical Cultures of the World	
MUSIC/ FOLKLORE 404	Music of S.E. Asia: Tradition, Innovation, Politics, and Religion	
MUSIC 405	Seminar: Cultural Study of Music	
MUSIC 411	Survey of Music in the Middle Ages	
MUSIC 412	Survey of Music in the Renaissance	
MUSIC 413	Survey of Music in the Baroque Era	
MUSIC 414	Survey of Music in the Classic Era	
MUSIC 415	Survey of Music in the Romantic Era	
MUSIC 416	Survey of Music in the Twentieth Century	
MUSIC 419	Music in the United States	
MUSIC 497	Special Topics in Music (topic approved by musicology faculty)	
MUSIC/ AFROAMER 509	Seminar in Afro-American Music History and Criticism	
MUSIC 511	Historical Performance Practices	
MUSIC 513	Survey of Opera	
MUSIC/ FOLKLORE 515	Proseminar in Ethnomusicology	
MUSIC 620	Proseminar in Musicology	
MUSIC 821	Historical Music Theories 1	
MUSIC 822	Historical Music Theories 2	
MUSIC 911	Seminar in Musicology	
MUSIC/ FOLKLORE 915	Seminar in Ethnomusicology	
MUSIC 923	Seminar in Notation	
Eligible music theory courses include the following: ³		
MUSIC 331	Jazz Improvisation	
MUSIC 497	Special Topics in Music (approval of topic by music theory faculty required)	

MUSIC 523	Orchestration I
MUSIC 621	Renaissance Polyphony
MUSIC 622	Baroque Counterpoint
MUSIC 623	Form and Analysis
MUSIC 624	Form and Analysis II
MUSIC 725	Music Theory Pedagogy
MUSIC 821	Historical Music Theories 1
MUSIC 822	Historical Music Theories 2
MUSIC 823	Schenkerian Analysis
MUSIC 824	Post-tonal Analysis
MUSIC 921	Current Issues in Musical Thought 1
MUSIC 925	Topics in Music Analysis 1
MUSIC 926	Topics in Music Analysis 2
MUSIC 927	Seminar in Composition

Elective courses 7

With advisor approval, choose courses in the School of Music at 300 level or above.

For information on Comprehensive Examinations and Committees please refer to the summary through the Policies tab; for full details consult the Mead Witter School of Music Graduate Handbook.

Total Credits 30

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

² Other courses do not fulfill this requirement unless specifically approved by the musicology faculty.

³ Other courses do not fulfill this requirement unless specifically approved by the music theory faculty.

Multiple Woodwinds Track¹

Code	Title	Credits
Major Woodwind Instrument Applied Study		8
Enroll in the course corresponding to the major instrument. 2 semesters minimum, 4 credits each semester		
MUS PERF 507	Masters Level-Flute	
MUS PERF 509	Masters Level-Oboe	
MUS PERF 511	Masters Level-Clarinet	
MUS PERF 513	Masters Level-Saxophone	
MUS PERF 515	Masters Level-Bassoon	
Secondary Instrument Applied Study		4
1 semester at 4 credits or 2 semesters at 2 credits, at discretion of secondary instrument professor		
MUS PERF 407	Advanced Flute	
MUS PERF 409	Advanced Oboe	
MUS PERF 411	Advanced Clarinet	
MUS PERF 413	Advanced Saxophone	
MUS PERF 415	Advanced Bassoon	
Recital		4
Enroll for this course in place of Applied Study in the recital semester.		
MUS PERF 990	Masters Recital (four credits) ²	

Tertiary Instruments 6

3 instruments total, 2 credits of study each at 300 level.
Select from the following as appropriate:

MUS PERF 311	Advanced Techniques: Clarinet ³
MUS PERF 315	Advanced Techniques: Bassoon ³

Organizations 2

2 semesters total; Select from the following:

MUSIC 570	University Symphony Orchestra
MUSIC 571	Chamber Orchestra
MUSIC 574	Wind Ensemble
MUSIC 576	Concert Band

Musicology and Music Theory Courses 9

At least one course must be taken in Musicology and one in Music Theory. 9 credits must be earned at UW-Madison.

Eligible musicology courses include the following:⁴

MUSIC/ AFROAMER 400	Music Cultures of the World: Africa, Europe, the Americas
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MUSIC/ FOLKLORE 401	Musical Cultures of the World
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MUSIC/ FOLKLORE 402	Musical Cultures of the World
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MUSIC/ FOLKLORE 404	Music of S.E. Asia: Tradition, Innovation, Politics, and Religion
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MUSIC 405	Seminar: Cultural Study of Music
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MUSIC 411	Survey of Music in the Middle Ages
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MUSIC 412	Survey of Music in the Renaissance
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MUSIC 413	Survey of Music in the Baroque Era
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MUSIC 414	Survey of Music in the Classic Era
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MUSIC 415	Survey of Music in the Romantic Era
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MUSIC 416	Survey of Music in the Twentieth Century
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MUSIC 419	Music in the United States
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MUSIC 497	Special Topics in Music (approval by musicology faculty required)
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MUSIC/ AFROAMER 509	Seminar in Afro-American Music History and Criticism
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MUSIC 511	Historical Performance Practices
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MUSIC 513	Survey of Opera
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MUSIC/ FOLKLORE 515	Proseminar in Ethnomusicology
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MUSIC 620	Proseminar in Musicology
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MUSIC 821	Historical Music Theories 1
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MUSIC 822	Historical Music Theories 2
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MUSIC 911	Seminar in Musicology
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MUSIC/ FOLKLORE 915	Seminar in Ethnomusicology
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MUSIC 923	Seminar in Notation
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Eligible music theory courses include the following:⁵

MUSIC 331	Jazz Improvisation
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MUSIC 497	Special Topics in Music (approval by music theory faculty required)
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MUSIC 523	Orchestration I
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MUSIC 621	Renaissance Polyphony
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MUSIC 622	Baroque Counterpoint
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MUSIC 623	Form and Analysis
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MUSIC 624	Form and Analysis II
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MUSIC 725	Music Theory Pedagogy
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MUSIC 821	Historical Music Theories 1
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MUSIC 822	Historical Music Theories 2
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MUSIC 823	Schenkerian Analysis
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MUSIC 824	Post-tonal Analysis
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MUSIC 921	Current Issues in Musical Thought 1
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MUSIC 925	Topics in Music Analysis 1
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MUSIC 926	Topics in Music Analysis 2
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MUSIC 927	Seminar in Composition
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For information on Comprehensive Examinations and Committees please refer to the summary through the Policies tab; for full details consult the Mead Witter School of Music Graduate Handbook.

Total Credits	33
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¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

² For the Master's Recital, 60% should be focused on the major instrument and 40% on the secondary instrument.

³ Study on flute, oboe, and saxophone is also available.

⁴ Other courses do not fulfill this requirement unless specifically approved by the musicology faculty.

⁵ Other courses do not fulfill this requirement unless specifically approved by the music theory faculty.

Opera Track¹

Code	Title	Credits
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Master's Level Voice Applied Study		8
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2 semesters minimum, 4 credits each semester

MUS PERF 505	Masters Level-Voice
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Opera Workshop		4
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2 semesters, 2 credits each semester

MUSIC 557	Opera Workshop
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Opera Performance		2
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One major opera role, determined by major professor

MUS PERF 990	Masters Recital (2 credits)
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Opera Study Project with Director of Opera		2
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MUSIC 799	Independent Work
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Advanced Diction²		4
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MUSIC 467	Language Diction for Singing I ³
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MUSIC 468	Language Diction for Singing II ³
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Musicology and Music Theory Courses		9
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At least one course must be taken in Musicology and one in Music Theory. 9 credits must be earned at UW-Madison.

Eligible musicology courses include the following:⁴

MUSIC/ AFROAMER 400	Music Cultures of the World: Africa, Europe, the Americas
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MUSIC/ FOLKLORE 401	Musical Cultures of the World
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MUSIC/ FOLKLORE 402	Musical Cultures of the World
MUSIC/ FOLKLORE 404	Music of S.E. Asia: Tradition, Innovation, Politics, and Religion
MUSIC 405	Seminar: Cultural Study of Music
MUSIC 411	Survey of Music in the Middle Ages
MUSIC 412	Survey of Music in the Renaissance
MUSIC 413	Survey of Music in the Baroque Era
MUSIC 414	Survey of Music in the Classic Era
MUSIC 415	Survey of Music in the Romantic Era
MUSIC 416	Survey of Music in the Twentieth Century
MUSIC 419	Music in the United States
MUSIC 497	Special Topics in Music (topic approved by musicology faculty)
MUSIC/ AFROAMER 509	Seminar in Afro-American Music History and Criticism
MUSIC 511	Historical Performance Practices
MUSIC 513	Survey of Opera
MUSIC/ FOLKLORE 515	Proseminar in Ethnomusicology
MUSIC 620	Proseminar in Musicology
MUSIC 821	Historical Music Theories 1
MUSIC 822	Historical Music Theories 2
MUSIC 911	Seminar in Musicology
MUSIC/ FOLKLORE 915	Seminar in Ethnomusicology
MUSIC 923	Seminar in Notation

Eligible music theory courses include the following:⁵

MUSIC 331	Jazz Improvisation
MUSIC 497	Special Topics in Music (approval of topic by musicology faculty required)
MUSIC 523	Orchestration I
MUSIC 621	Renaissance Polyphony
MUSIC 622	Baroque Counterpoint
MUSIC 623	Form and Analysis
MUSIC 624	Form and Analysis II
MUSIC 725	Music Theory Pedagogy
MUSIC 821	Historical Music Theories 1
MUSIC 823	Schenkerian Analysis
MUSIC 824	Post-tonal Analysis
MUSIC 921	Current Issues in Musical Thought 1
MUSIC 925	Topics in Music Analysis 1
MUSIC 926	Topics in Music Analysis 2
MUSIC 927	Seminar in Composition

Elective courses 1

With advisor approval, choose courses in the School of Music at 300 level or above.

Language Proficiency

Prior to graduation the voice and opera faculty must certify that a candidate has a level of proficiency in French, Italian, and German that is equivalent to successfully completing one year (two semesters) of college-level coursework. The major professor in voice and the director of opera will determine proficiency through review of prior coursework and/or proficiency examination.

Consult the voice faculty and the director of graduate studies for information on ways in which the language proficiency requirement may be satisfied.

For information on Comprehensive Examinations and Committees please refer to the summary through the Policies tab; for full details consult the Mead Witter School of Music Graduate Handbook.

Total Credits 30

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

² All or part of this requirement may be waived on discretion of the voice faculty; student must have had equivalent training in prior study. The voice faculty administers a qualifying examination to determine proficiency in diction.

³ This course sequence is offered only once every two years. Consult the graduate office or voice area faculty to plan accordingly.

⁴ Other courses do not fulfill this requirement unless specifically approved by the musicology faculty.

⁵ Other courses do not fulfill this requirement unless specifically approved by the music theory faculty.

Orchestral Conducting Track¹

Code	Title	Credits
Conducting Applied Study		8
2 semesters minimum, 4 credits each		
MUS PERF 532	Advanced Conducting	

Recital		4
MUS PERF 990	Masters Recital ²	

Musicology and Music Theory Courses		9
MUSIC 523	Orchestration I (required)	

Among the remaining 6 credits, at least one course must be in Musicology. A total of 9 credits (including MUSIC 523, required) must be earned at UW-Madison.

Eligible musicology courses include:³

MUSIC/ AFROAMER 400	Musical Cultures of the World: Africa, Europe, the Americas
MUSIC/ FOLKLORE 401	Musical Cultures of the World
MUSIC/ FOLKLORE 402	Musical Cultures of the World
MUSIC/ FOLKLORE 404	Music of S.E. Asia: Tradition, Innovation, Politics, and Religion
MUSIC 405	Seminar: Cultural Study of Music
MUSIC 411	Survey of Music in the Middle Ages
MUSIC 412	Survey of Music in the Renaissance
MUSIC 413	Survey of Music in the Baroque Era

MUSIC 414	Survey of Music in the Classic Era
MUSIC 415	Survey of Music in the Romantic Era
MUSIC 416	Survey of Music in the Twentieth Century
MUSIC 419	Music in the United States
MUSIC 497	Special Topics in Music (topic approved by musicology faculty)
MUSIC/ AFROAMER 509	Seminar in Afro-American Music History and Criticism
MUSIC 511	Historical Performance Practices
MUSIC 513	Survey of Opera
MUSIC/ FOLKLORE 515	Proseminar in Ethnomusicology
MUSIC 620	Proseminar in Musicology
MUSIC 911	Seminar in Musicology
MUSIC/ FOLKLORE 915	Seminar in Ethnomusicology
MUSIC 923	Seminar in Notation

Eligible music theory courses include the following:⁴

MUSIC 331	Jazz Improvisation
MUSIC 497	Special Topics in Music (approval of topic by music theory faculty required)
MUSIC 621	Renaissance Polyphony
MUSIC 622	Baroque Counterpoint
MUSIC 623	Form and Analysis
MUSIC 624	Form and Analysis II
MUSIC 725	Music Theory Pedagogy
MUSIC 821	Historical Music Theories 1
MUSIC 822	Historical Music Theories 2
MUSIC 823	Schenkerian Analysis
MUSIC 824	Post-tonal Analysis
MUSIC 921	Current Issues in Musical Thought 1
MUSIC 925	Topics in Music Analysis 1
MUSIC 926	Topics in Music Analysis 2
MUSIC 927	Seminar in Composition

Elective courses 9

With advisor approval, choose courses in the School of Music at 300 level or above.

For information on Comprehensive Examinations and Committees please refer to the summary through the Policies tab; for full details consult the Mead Witter School of Music Graduate Handbook.

Total Credits 30

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

² At the discretion of the conducting faculty, the number of credits per semester for Master's Recital may vary, but the total recital credits in the program must be 4 credits. The alternate course 660-799 may be used for this requirement as necessary,

³ Other courses do not fulfill this requirement unless specifically approved by the musicology faculty.

⁴ Other courses do not fulfill this requirement unless specifically approved by the music theory faculty.

Organ Performance Track¹

Code	Title	Credits
Master's Level Organ Applied Study		8
2 semesters, 4 credits each semester		
MUS PERF 503	Masters Level-Organ	
Recital		4
Enroll for this course in place of Master's Level Applied Study in the recital semester.		
MUS PERF 990	Masters Recital	
Organ Literature and Design		4
MUSIC 591	Organ Literature and Design	
MUSIC 799	Independent Work	
Musicology and Music Theory Courses		9
At least one course must be taken in Musicology and one in Music Theory.9 credits must be earned at UW-Madison.		
Eligible musicology courses include the following: ²		
MUSIC/ AFROAMER 400	Music Cultures of the World: Africa, Europe, the Americas	
MUSIC/ FOLKLORE 401	Musical Cultures of the World	
MUSIC/ FOLKLORE 402	Musical Cultures of the World	
MUSIC/ FOLKLORE 404	Music of S.E. Asia: Tradition, Innovation, Politics, and Religion	
MUSIC 405	Seminar: Cultural Study of Music	
MUSIC 411	Survey of Music in the Middle Ages	
MUSIC 412	Survey of Music in the Renaissance	
MUSIC 413	Survey of Music in the Baroque Era	
MUSIC 414	Survey of Music in the Classic Era	
MUSIC 415	Survey of Music in the Romantic Era	
MUSIC 416	Survey of Music in the Twentieth Century	
MUSIC 419	Music in the United States	
MUSIC 497	Special Topics in Music (topic approved by musicology area)	
MUSIC/ AFROAMER 509	Seminar in Afro-American Music History and Criticism	
MUSIC 511	Historical Performance Practices	
MUSIC 513	Survey of Opera	
MUSIC/ FOLKLORE 515	Proseminar in Ethnomusicology	
MUSIC 620	Proseminar in Musicology	
MUSIC 821	Historical Music Theories 1	
MUSIC 822	Historical Music Theories 2	
MUSIC 911	Seminar in Musicology	
MUSIC/ FOLKLORE 915	Seminar in Ethnomusicology	
MUSIC 923	Seminar in Notation	
Eligible music theory courses include the following: ³		

MUSIC 331	Jazz Improvisation	
MUSIC 497	Special Topics in Music (topic approved by music theory area)	
MUSIC 523	Orchestration I	
MUSIC 621	Renaissance Polyphony	
MUSIC 622	Baroque Counterpoint	
MUSIC 623	Form and Analysis	
MUSIC 624	Form and Analysis II	
MUSIC 725	Music Theory Pedagogy	
MUSIC 821	Historical Music Theories 1	
MUSIC 822	Historical Music Theories 2	
MUSIC 823	Schenkerian Analysis	
MUSIC 824	Post-tonal Analysis	
MUSIC 921	Current Issues in Musical Thought 1	
MUSIC 925	Topics in Music Analysis 1	
MUSIC 926	Topics in Music Analysis 2	
MUSIC 927	Seminar in Composition	
Research Methods and Materials		3
MUSIC/L I S 619	Music Research Methods and Materials	
Elective courses		5
With advisor approval, choose courses in the School of Music at 300 level or above.		
For information on Comprehensive Examinations and Committees please refer to the summary through the Policies tab; for full details consult the Mead Witter School of Music Graduate Handbook.		
Total Credits		33

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

² Other courses do not fulfill this requirement unless specifically approved by the musicology faculty.

³ Other courses do not fulfill this requirement unless specifically approved by the music theory faculty.

Percussion Track ¹

Code	Title	Credits
Master's Level Percussion Applied Study		
2 semesters, 4 credits each semester		
MUS PERF 527	Masters Level-Percussion	
Recital		4
Enroll for this course in place of Master's Level Applied Study in the recital semester.		
MUS PERF 990	Masters Recital	
Literature		2
MUSIC 346	Repertoire	
or MUSIC 550	Percussion Literature	
Ensemble & Organization		4
Ensemble: 2 semesters required.		
MUSIC 568	Advanced Ensemble-Percussion ²	
Organization: 2 semesters required. Select from:		
MUSIC 570	University Symphony Orchestra	

MUSIC 571	Chamber Orchestra	
MUSIC 574	Wind Ensemble	
MUSIC 576	Concert Band	
Musicology and Music Theory		9
At least one course must be taken in Musicology and one in Music Theory. 9 credits must be earned at UW-Madison.		
Eligible musicology courses include the following: ³		
MUSIC/AFROAMER 400	Music Cultures of the World: Africa, Europe, the Americas	
MUSIC/FOLKLORE 401	Musical Cultures of the World	
MUSIC/FOLKLORE 402	Musical Cultures of the World	
MUSIC/FOLKLORE 404	Music of S.E. Asia: Tradition, Innovation, Politics, and Religion	
MUSIC 405	Seminar: Cultural Study of Music	
MUSIC 411	Survey of Music in the Middle Ages	
MUSIC 412	Survey of Music in the Renaissance	
MUSIC 413	Survey of Music in the Baroque Era	
MUSIC 414	Survey of Music in the Classic Era	
MUSIC 415	Survey of Music in the Romantic Era	
MUSIC 416	Survey of Music in the Twentieth Century	
MUSIC 419	Music in the United States	
MUSIC 497	Special Topics in Music (topic approved by musicology area)	
MUSIC/AFROAMER 509	Seminar in Afro-American Music History and Criticism	
MUSIC 511	Historical Performance Practices	
MUSIC 513	Survey of Opera	
MUSIC/FOLKLORE 515	Proseminar in Ethnomusicology	
MUSIC 821	Historical Music Theories 1	
MUSIC 822	Historical Music Theories 2	
MUSIC 911	Seminar in Musicology	
MUSIC 923	Seminar in Notation	
Eligible music theory courses include the following: ⁴		
MUSIC 331	Jazz Improvisation	
MUSIC 497	Special Topics in Music (topic approved by music theory faculty)	
MUSIC 523	Orchestration I	
MUSIC 621	Renaissance Polyphony	
MUSIC 622	Baroque Counterpoint	
MUSIC 623	Form and Analysis	
MUSIC 624	Form and Analysis II	
MUSIC 725	Music Theory Pedagogy	
MUSIC 821	Historical Music Theories 1	
MUSIC 822	Historical Music Theories 2	
MUSIC 823	Schenkerian Analysis	
MUSIC 824	Post-tonal Analysis	
MUSIC 925	Topics in Music Analysis 1	
MUSIC 926	Topics in Music Analysis 2	

MUSIC/ FOLKLORE 915	Seminar in Ethnomusicology	
MUSIC 927	Seminar in Composition	

Elective courses 4

With advisor approval, choose courses in the School of Music at 300 level or above.

For information on Comprehensive Examinations and Committees please refer to the summary through the Policies tab; for full details consult the Mead Witter School of Music Graduate Handbook.

Total Credits 31

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

² With permission of the percussion faculty, other ensembles may substitute for MUSIC 568 Advanced Ensemble-Percussion.

³ Other courses do not fulfill this requirement unless specifically approved by the musicology faculty.

⁴ Other courses do not fulfill this requirement unless specifically approved by the music theory faculty.

Piano Performance Track ¹

Code	Title	Credits
Master's Level Piano Applied Study		8

2 semesters minimum, 4 credits each semester

MUS PERF 501	Masters Level-Piano	
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Recitals 8

Enroll for these courses in place of Master's Level Piano in the recital semesters—there are two recitals.

For the Solo Recital:

MUS PERF 990	Masters Recital (solo recital, 4 credits)	
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For the Chamber Music Recital:

MUSIC 990	Masters Thesis (2 credits, enrolled with major professor)	
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MUS PERF 542	Advanced Accompanying (2 credits)	
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Piano Pedagogy 3

Select from the following courses:

MUSIC 548	Piano Pedagogy II ²	
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MUSIC 551	Class Piano Pedagogy	
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MUSIC 751	Seminar in Piano Pedagogy (topics course; may be repeated for credit)	
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Piano Literature 3

Select from the following courses:

MUSIC 791	Seminar in Piano Literature	
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MUSIC 346	Repertoire	
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MUSIC 796	Seminar in Duo Sonata Literature	
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Musicology and Music Theory Courses 9

At least one course must be taken in Musicology and one in Music Theory. 9 credits must be earned at UW-Madison.

Eligible musicology courses include the following: ³

MUSIC/ AFROAMER 400	Music Cultures of the World: Africa, Europe, the Americas	
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MUSIC/ FOLKLORE 401	Musical Cultures of the World	
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MUSIC/ FOLKLORE 402	Musical Cultures of the World	
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MUSIC/ FOLKLORE 404	Music of S.E. Asia: Tradition, Innovation, Politics, and Religion	
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MUSIC 405	Seminar: Cultural Study of Music	
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MUSIC 411	Survey of Music in the Middle Ages	
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MUSIC 412	Survey of Music in the Renaissance	
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MUSIC 413	Survey of Music in the Baroque Era	
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MUSIC 414	Survey of Music in the Classic Era	
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MUSIC 415	Survey of Music in the Romantic Era	
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MUSIC 416	Survey of Music in the Twentieth Century	
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MUSIC 419	Music in the United States	
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MUSIC 497	Special Topics in Music (topic approved by musicology faculty)	
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MUSIC/ AFROAMER 509	Seminar in Afro-American Music History and Criticism	
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MUSIC 511	Historical Performance Practices	
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MUSIC 513	Survey of Opera	
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MUSIC/ FOLKLORE 515	Proseminar in Ethnomusicology	
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MUSIC 620	Proseminar in Musicology	
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MUSIC 821	Historical Music Theories 1	
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MUSIC 822	Historical Music Theories 2	
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MUSIC 911	Seminar in Musicology	
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MUSIC/ FOLKLORE 915	Seminar in Ethnomusicology	
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MUSIC 923	Seminar in Notation	
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Eligible music theory courses include the following: ⁴

MUSIC 331	Jazz Improvisation	
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MUSIC 497	Special Topics in Music (topic approved by music theory faculty)	
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MUSIC 523	Orchestration I	
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MUSIC 621	Renaissance Polyphony	
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MUSIC 622	Baroque Counterpoint	
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MUSIC 623	Form and Analysis	
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MUSIC 624	Form and Analysis II	
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MUSIC 725	Music Theory Pedagogy	
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MUSIC 821	Historical Music Theories 1	
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MUSIC 822	Historical Music Theories 2	
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MUSIC 823	Schenkerian Analysis	
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MUSIC 824	Post-tonal Analysis	
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MUSIC 921	Current Issues in Musical Thought 1	
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MUSIC 925	Topics in Music Analysis 1	
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MUSIC 926	Topics in Music Analysis 2	
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MUSIC 927	Seminar in Composition	
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Elective credits 1

With advisor approval, choose courses in the School of Music at 300 level or above.

For information on Comprehensive Examinations and Committees please refer to the summary through the Policies tab; for full details consult the Mead Witter School of Music Graduate Handbook.

Total Credits 32

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

² Eligibility for enrolling in this class is contingent upon the student's having taken MUSIC 340 Pedagogy or equivalent. For this requirement MUSIC 340 does not count toward fulfilling the total 9 credit minimum.

³ Other courses do not fulfill this requirement unless specifically approved by the musicology faculty.

⁴ Other courses do not fulfill this requirement unless specifically approved by the music theory faculty.

Piano Performance and Pedagogy Track ¹

Code	Title	Credits
Master's Level Piano Applied Study		8
MUS PERF 501	Masters Level-Piano (2 semesters minimum, 4 credits each semester)	

Or, alternatively, accumulate 8 credits with the following:

MUS PERF 501	Masters Level-Piano (4 credits minimum)	
MUS PERF 542	Advanced Accompanying	

Recital		4
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Enroll in this course in the recital semester instead of MUS PERF 501 or MUS PERF 542.

MUS PERF 990	Masters Recital	
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Pedagogy		8
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Select from the following, with advisor approval:

MUSIC 548	Piano Pedagogy II ²	
MUSIC 551	Class Piano Pedagogy	
MUSIC 751	Seminar in Piano Pedagogy	
MUSIC 752	Piano Pedagogy Workshop	
MUSIC 497	Special Topics in Music ³	
DANCE 560	Current Topics in Dance: Workshop ⁴	

Final Project		1
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MUSIC 799	Independent Work	
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Practicum		1
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MUSIC 560	Practicum in Advanced Studio Teaching-Piano	
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Piano Literature		3
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Select from the following:

MUSIC 346	Repertoire	
MUSIC 791	Seminar in Piano Literature	
MUSIC 796	Seminar in Duo Sonata Literature	

Musicology and Music Theory		9
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At least one course must be taken in Musicology and one in Music Theory. 9 credits must be earned at UW-Madison.

Eligible musicology courses include the following: ⁵

MUSIC/ AFROAMER 400	Music Cultures of the World: Africa, Europe, the Americas
MUSIC/ FOLKLORE 401	Musical Cultures of the World
MUSIC/ FOLKLORE 402	Musical Cultures of the World
MUSIC/ FOLKLORE 404	Music of S.E. Asia: Tradition, Innovation, Politics, and Religion
MUSIC 405	Seminar: Cultural Study of Music
MUSIC 411	Survey of Music in the Middle Ages
MUSIC 412	Survey of Music in the Renaissance
MUSIC 413	Survey of Music in the Baroque Era
MUSIC 414	Survey of Music in the Classic Era
MUSIC 415	Survey of Music in the Romantic Era
MUSIC 416	Survey of Music in the Twentieth Century
MUSIC 419	Music in the United States
MUSIC 497	Special Topics in Music (topic approved by musicology faculty)
MUSIC/ AFROAMER 509	Seminar in Afro-American Music History and Criticism
MUSIC 511	Historical Performance Practices
MUSIC 513	Survey of Opera
MUSIC/ FOLKLORE 515	Proseminar in Ethnomusicology
MUSIC 620	Proseminar in Musicology
MUSIC 821	Historical Music Theories 1
MUSIC 822	Historical Music Theories 2
MUSIC 911	Seminar in Musicology
MUSIC/ FOLKLORE 915	Seminar in Ethnomusicology
MUSIC 923	Seminar in Notation
Eligible music theory courses include the following: ⁶	
MUSIC 331	Jazz Improvisation
MUSIC 497	Special Topics in Music (topic approved by music theory faculty)
MUSIC 523	Orchestration I
MUSIC 621	Renaissance Polyphony
MUSIC 622	Baroque Counterpoint
MUSIC 623	Form and Analysis
MUSIC 624	Form and Analysis II
MUSIC 725	Music Theory Pedagogy
MUSIC 821	Historical Music Theories 1
MUSIC 822	Historical Music Theories 2
MUSIC 823	Schenkerian Analysis
MUSIC 824	Post-tonal Analysis
MUSIC 921	Current Issues in Musical Thought 1
MUSIC 925	Topics in Music Analysis 1
MUSIC 926	Topics in Music Analysis 2
MUSIC 927	Seminar in Composition

For information on Comprehensive Examinations and Committees please refer to the summary through the Policies tab; for full details consult the Mead Witter School of Music Graduate Handbook.

Total Credits 34

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

² Eligibility for enrolling in this class is contingent upon the student's having taken MUSIC 340 Pedagogy or equivalent. For this requirement MUSIC 340 does not count toward fulfilling the total 9 credit minimum.

³ Approved topic: Teaching Music in the Private Studio, 2 credits

⁴ Approved topic: Feldenkrais for Performing Artists, 1 credit

⁵ Other courses do not fulfill this requirement unless specifically approved by the musicology faculty.

⁶ Other courses do not fulfill this requirement unless specifically approved by the music theory faculty.

String Performance Track ¹

Code	Title	Credits
String Instrument Applied Study		8
Enroll the course corresponding to the major instrument. 2 semesters minimum, 4 credits each semester.		
MUS PERF 531	Masters Level-Violin	
MUS PERF 533	Masters Level-Viola	
MUS PERF 535	Masters Level-Cello	
Recital		4
Enroll for this course in place of Master's Level Applied Study in the recital semester.		
MUS PERF 990	Masters Recital	
Orchestra		4
2 semesters required		
MUSIC 570	University Symphony Orchestra	
MUSIC 571	Chamber Orchestra	
Ensemble		
2 semesters		
MUSIC 569	Advanced Ensemble-String	
Pedagogy		2
Select from the following courses:		
MUSIC 543	Advanced String Pedagogy	
MUSIC 544	Advanced String Pedagogy	
MUSIC 545	Practicum in Advanced String Pedagogy	
MUSIC 540	Advanced Pedagogy (instrumental)	
DANCE 560	Current Topics in Dance: Workshop (Feldenkrais for Performing Musicians)	
Literature		2
MUSIC 546	String Literature	
or MUSIC 796	Seminar in Duo Sonata Literature	
Musicology and Music Theory Courses		9
At least one course must be taken in Musicology and one in Music Theory. 9 credits must be earned at UW-Madison.		

Eligible musicology courses include the following: ²

MUSIC/ AFROAMER 400	Music Cultures of the World: Africa, Europe, the Americas
MUSIC/ FOLKLORE 401	Musical Cultures of the World
MUSIC/ FOLKLORE 402	Musical Cultures of the World
MUSIC/ FOLKLORE 404	Music of S.E. Asia: Tradition, Innovation, Politics, and Religion
MUSIC 405	Seminar: Cultural Study of Music
MUSIC 411	Survey of Music in the Middle Ages
MUSIC 412	Survey of Music in the Renaissance
MUSIC 413	Survey of Music in the Baroque Era
MUSIC 414	Survey of Music in the Classic Era
MUSIC 415	Survey of Music in the Romantic Era
MUSIC 416	Survey of Music in the Twentieth Century
MUSIC 419	Music in the United States
MUSIC 497	Special Topics in Music (topic approved by musicology faculty)
MUSIC/ AFROAMER 509	Seminar in Afro-American Music History and Criticism
MUSIC 511	Historical Performance Practices
MUSIC 513	Survey of Opera
MUSIC 620	Proseminar in Musicology
MUSIC 821	Historical Music Theories 1
MUSIC 822	Historical Music Theories 2
MUSIC 911	Seminar in Musicology
MUSIC/ FOLKLORE 915	Seminar in Ethnomusicology
MUSIC 923	Seminar in Notation

Eligible music theory courses include the following: ³

MUSIC 331	Jazz Improvisation
MUSIC 497	Special Topics in Music (topic approved by music theory faculty)
MUSIC 523	Orchestration I
MUSIC 621	Renaissance Polyphony
MUSIC 622	Baroque Counterpoint
MUSIC 623	Form and Analysis
MUSIC 624	Form and Analysis II
MUSIC 725	Music Theory Pedagogy
MUSIC 821	Historical Music Theories 1
MUSIC 822	Historical Music Theories 2
MUSIC 823	Schenkerian Analysis
MUSIC 824	Post-tonal Analysis
MUSIC 921	Current Issues in Musical Thought 1
MUSIC 925	Topics in Music Analysis 1
MUSIC 926	Topics in Music Analysis 2
MUSIC 927	Seminar in Composition

Elective courses

4

With advisor approval, choose courses in the School of Music at 300 level or above.

For information on Comprehensive Examinations and Committees please refer to the summary through the Policies tab; for full details consult the Mead Witter School of Music Graduate Handbook.

Total Credits 33

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

² Other courses do not fulfill this requirement unless specifically approved by the musicology faculty.

³ Other courses do not fulfill this requirement unless specifically approved by the music theory faculty.

Vocal Performance Track ¹

Code	Title	Credits
Master's Level Voice Applied Study		8

2 semesters minimum, 4 credits each semester

MUS PERF 505	Masters Level-Voice
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Recital	4
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Enroll for this course in place of Master's Level Applied Study in the recital semester.

MUS PERF 990	Masters Recital
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Advanced Diction ²	4
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MUSIC 467	Language Diction for Singing I ³
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MUSIC 468	Language Diction for Singing II ³
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Vocal Literature	3
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MUSIC 792	Seminar in Vocal Literature ^{3,4}
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Vocal Pedagogy	2
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MUSIC 749	Seminar in Vocal Techniques ³
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Ensemble	2
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Select from the following courses: ⁵ 2

MUSIC 461	Collegium Musicum
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MUSIC 558	Madrigal Singers
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MUSIC 578	Concert Choir
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MUSIC 557	Opera Workshop
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Musicology and Music Theory Courses	9
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At least one course must be taken in Musicology and one in Music Theory. 9 credits must be earned at UW-Madison.

Eligible musicology courses include the following: ⁶

MUSIC/ AFROAMER 400	Music Cultures of the World: Africa, Europe, the Americas
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MUSIC/ FOLKLORE 401	Musical Cultures of the World
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MUSIC/ FOLKLORE 402	Musical Cultures of the World
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MUSIC/ FOLKLORE 404	Music of S.E. Asia: Tradition, Innovation, Politics, and Religion
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MUSIC 405	Seminar: Cultural Study of Music
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MUSIC 411	Survey of Music in the Middle Ages
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MUSIC 412	Survey of Music in the Renaissance
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MUSIC 413	Survey of Music in the Baroque Era
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MUSIC 414	Survey of Music in the Classic Era
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MUSIC 415	Survey of Music in the Romantic Era
MUSIC 416	Survey of Music in the Twentieth Century
MUSIC 419	Music in the United States
MUSIC 497	Special Topics in Music (approval of topic by musicology faculty required)
MUSIC/ AFROAMER 509	Seminar in Afro-American Music History and Criticism
MUSIC 511	Historical Performance Practices
MUSIC 513	Survey of Opera
MUSIC/ FOLKLORE 515	Proseminar in Ethnomusicology
MUSIC 620	Proseminar in Musicology
MUSIC 821	Historical Music Theories 1
MUSIC 822	Historical Music Theories 2
MUSIC 911	Seminar in Musicology
MUSIC 923	Seminar in Notation
Eligible music theory courses include the following: ⁷	
MUSIC 331	Jazz Improvisation
MUSIC 497	Special Topics in Music (topic approved by music theory faculty)
MUSIC 523	Orchestration I
MUSIC 621	Renaissance Polyphony
MUSIC 622	Baroque Counterpoint
MUSIC 623	Form and Analysis
MUSIC 624	Form and Analysis II
MUSIC 725	Music Theory Pedagogy
MUSIC 821	Historical Music Theories 1
MUSIC 822	Historical Music Theories 2
MUSIC 823	Schenkerian Analysis
MUSIC 824	Post-tonal Analysis
MUSIC 921	Current Issues in Musical Thought 1
MUSIC 925	Topics in Music Analysis 1
MUSIC 926	Topics in Music Analysis 2
MUSIC 927	Seminar in Composition

Language Proficiency

Prior to graduation the voice and opera faculty must certify that a candidate has a level of proficiency in French, Italian, and German that is equivalent to successfully completing one semester of college-level coursework in all three languages plus a second of one of these languages (a total of four semesters of college-level study). The major professor in voice and the director of opera will determine proficiency through review of prior coursework and/or proficiency examination.

Consult the voice faculty and the director of graduate studies for information on ways in which the language proficiency requirement may be satisfied.

For information on Comprehensive Examinations and Committees please refer to the summary through the Policies tab; for full details consult the Mead Witter School of Music Graduate Handbook.

Total Credits 34

- ¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.
- ² All or part of this requirement may be waived, should the student's diction proficiency is satisfactory in certain languages. The voice faculty will review past diction study or administer a qualifying examination to determine proficiency.
- ³ Consult the graduate office or the voice faculty for information on the schedule for planned offerings of this course.
- ⁴ MUSIC 346 Repertoire (Topic: Vocal Repertoire) or equivalent is a prerequisite for this course.
- ⁵ Other ensembles may be eligible for this requirement, with voice faculty approval.
- ⁶ Other courses do not fulfill this requirement unless specifically approved by the musicology faculty.
- ⁷ Other courses do not fulfill this requirement unless specifically approved by the music theory faculty.

Wind Conducting Track ¹

Code	Title	Credits
Conducting Applied Study		8
2 semesters, 4 credits each		
MUS PERF 532	Advanced Conducting	
Recital		4
Enroll for this course in place of Master's Level Applied Study in the recital semester.		
MUS PERF 990	Masters Recital ²	
Organization		2
Select from the following. 2 semesters minimum required.		
MUSIC 574	Wind Ensemble	
MUSIC 576	Concert Band	
Musicology and Music Theory		9
MUSIC 523	Orchestration I (required)	3
Among the remaining 6 credits, at least one course must be in Musicology. A total of 9 credits (including MUSIC 523, required) must be earned at UW-Madison		
Eligible musicology courses include: ³		
MUSIC/ AFROAMER 400	Music Cultures of the World: Africa, Europe, the Americas	
MUSIC/ FOLKLORE 401	Musical Cultures of the World	
MUSIC/ FOLKLORE 402	Musical Cultures of the World	
MUSIC/ FOLKLORE 404	Music of S.E. Asia: Tradition, Innovation, Politics, and Religion	
MUSIC 405	Seminar: Cultural Study of Music	
MUSIC 411	Survey of Music in the Middle Ages	
MUSIC 412	Survey of Music in the Renaissance	
MUSIC 413	Survey of Music in the Baroque Era	

MUSIC 414	Survey of Music in the Classic Era
MUSIC 415	Survey of Music in the Romantic Era
MUSIC 416	Survey of Music in the Twentieth Century
MUSIC 419	Music in the United States
MUSIC 497	Special Topics in Music (approval of topic by musicology faculty required)
MUSIC/ AFROAMER 509	Seminar in Afro-American Music History and Criticism
MUSIC 511	Historical Performance Practices
MUSIC 513	Survey of Opera
MUSIC/ FOLKLORE 515	Proseminar in Ethnomusicology
MUSIC 620	Proseminar in Musicology
MUSIC 821	Historical Music Theories 1
MUSIC 822	Historical Music Theories 2
MUSIC 911	Seminar in Musicology
MUSIC/ FOLKLORE 915	Seminar in Ethnomusicology
MUSIC 923	Seminar in Notation
Eligible music theory courses include the following: ⁴	
MUSIC 331	Jazz Improvisation
MUSIC 497	Special Topics in Music (approval of topic by music theory faculty required)
MUSIC 621	Renaissance Polyphony
MUSIC 622	Baroque Counterpoint
MUSIC 623	Form and Analysis
MUSIC 624	Form and Analysis II
MUSIC 725	Music Theory Pedagogy
MUSIC 821	Historical Music Theories 1
MUSIC 822	Historical Music Theories 2
MUSIC 823	Schenkerian Analysis
MUSIC 824	Post-tonal Analysis
MUSIC 921	Current Issues in Musical Thought 1
MUSIC 925	Topics in Music Analysis 1
MUSIC 926	Topics in Music Analysis 2
MUSIC 927	Seminar in Composition

Elective courses 7

With advisor approval, choose courses in the School of Music at 300 level or above.

For information on Comprehensive Examinations and Committees please refer to the summary through the Policies tab; for full details consult the Mead Witter School of Music Graduate Handbook.

Total Credits 33

- ¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.
- ² At the discretion of the conducting faculty, the recital credit may be fulfilled with either 4 recitals at 1 credit each or 1 recital, 4 credits.

³ Other courses do not fulfill this requirement unless specifically approved by the musicology faculty

⁴ Other courses do not fulfill this requirement unless specifically approved by the music theory faculty.

Woodwind Performance Track ¹

Code	Title	Credits
Master's Level Woodwind Instrument Applied Study		8
Select the course corresponding to the major instrument. 2 semesters minimum, 4 credits each semester.		
MUS PERF 507	Masters Level-Flute	
MUS PERF 509	Masters Level-Oboe	
MUS PERF 511	Masters Level-Clarinet	
MUS PERF 513	Masters Level-Saxophone	
MUS PERF 515	Masters Level-Bassoon	
Recital		4
Enroll for this course in place of Master's Level Applied Study in the recital semester.		
MUS PERF 990	Masters Recital	
Ensemble		2
MUSIC 565	Advanced Ensemble-Woodwind (two semesters required)	
Organizations		2
Select from the following. Two semesters required.		
MUSIC 570	University Symphony Orchestra	
MUSIC 571	Chamber Orchestra	
MUSIC 574	Wind Ensemble	
MUSIC 576	Concert Band	
Musicology and Music Theory Courses		9
At least one course must be taken in Musicology and one in Music Theory. 9 credits must be earned at UW-Madison. Eligible musicology courses include the following: ¹		
MUSIC/ AFROAMER 400	Music Cultures of the World: Africa, Europe, the Americas	
MUSIC/ FOLKLORE 401	Musical Cultures of the World	
MUSIC/ FOLKLORE 402	Musical Cultures of the World	
MUSIC/ FOLKLORE 404	Music of S.E. Asia: Tradition, Innovation, Politics, and Religion	
MUSIC 405	Seminar: Cultural Study of Music	
MUSIC 411	Survey of Music in the Middle Ages	
MUSIC 412	Survey of Music in the Renaissance	
MUSIC 413	Survey of Music in the Baroque Era	
MUSIC 414	Survey of Music in the Classic Era	
MUSIC 415	Survey of Music in the Romantic Era	
MUSIC 416	Survey of Music in the Twentieth Century	
MUSIC 419	Music in the United States	
MUSIC 497	Special Topics in Music (for topic approved by musicology faculty)	
MUSIC/ AFROAMER 509	Seminar in Afro-American Music History and Criticism	
MUSIC 511	Historical Performance Practices	

MUSIC 513	Survey of Opera
MUSIC/ FOLKLORE 515	Proseminar in Ethnomusicology
MUSIC 620	Proseminar in Musicology
MUSIC 821	Historical Music Theories 1
MUSIC 822	Historical Music Theories 2
MUSIC 911	Seminar in Musicology
MUSIC/ FOLKLORE 915	Seminar in Ethnomusicology
MUSIC 923	Seminar in Notation
Eligible music theory courses include the following: ³	
MUSIC 331	Jazz Improvisation
MUSIC 497	Special Topics in Music (approval of topic by music theory faculty required)
MUSIC 523	Orchestration I
MUSIC 621	Renaissance Polyphony
MUSIC 622	Baroque Counterpoint
MUSIC 623	Form and Analysis
MUSIC 624	Form and Analysis II
MUSIC 725	Music Theory Pedagogy
MUSIC 823	Schenkerian Analysis
MUSIC 824	Post-tonal Analysis
MUSIC 921	Current Issues in Musical Thought 1
MUSIC 925	Topics in Music Analysis 1
MUSIC 926	Topics in Music Analysis 2
MUSIC 927	Seminar in Composition

Elective courses 5

With advisor approval, choose courses in the School of Music at 300 level or above.

For information on Comprehensive Examinations and Committees please refer to the summary through the Policies tab; for full details consult the Mead Witter School of Music Graduate Handbook.

Total Credits 30

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

² Other courses do not fulfill this requirement unless specifically approved by the musicology faculty.

³ Other courses do not fulfill this requirement unless specifically approved by the music theory faculty.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<http://www.music.wisc.edu/wp-content/uploads/2014/05/SOM-Grad-Handbook-1.pdf>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

No more than 6 credits may be approved for graduate coursework taken at other institutions.

UW–Madison Undergraduate

The Graduate School allows departments to review requests to count up to 7 credits of undergraduate work at UW–Madison toward graduate program requirements, but this is rarely approved by the Mead Witter School of Music faculty.

UW–Madison University Special

Some students may have completed coursework at 300-level or above at UW–Madison as a Special Student; with program approval coursework so taken may be considered to fulfill up to 6 credits of graduate program requirements.

PROBATION

M.M. students who fail to make satisfactory progress in any of the four following areas: grades, course load, time constraints, or exams, will be notified in writing by the DGS. At the end of the second semester of failing to make satisfactory progress the student is placed on probation effective the next semester. This action suspends financial aid (but does not affect loans or work-study). See details in the Satisfactory Progress for Master's Students (<http://uwsom.wengine.com/wp-content/uploads/2014/05/MastersSatisfactoryProgress.pdf>).

ADVISOR / COMMITTEE

All programs provide for faculty from several disciplines to follow the student's progress through the degree, provide mentorship along the way, and assess the student's success in reaching expected learning outcomes. Committee structures differ among degrees and majors. The principal advisor for most graduate students in the Mead Witter School of Music is generally referred to as the major professor. In all programs the major professor is determined with the student's particular interests in mind. In music performance programs, the faculty attempts, whenever possible, to assign the major professor based upon a student's request.

The director of graduate studies is also an advisor for all graduate students in Mead Witter School of Music programs. Students are expected to consult with the director of graduate studies at least once per semester to determine appropriate course plans. Consultation is mandatory in the semester before intended graduation.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

M.M. and M.A. students not receiving University funding are expected to complete requirements and pass comprehensive examinations within seven years from the time of enrollment in the

program. While graduate students may enroll on a part-time basis, this time constraint still applies.

All M.M. and M.A. students holding teaching assistant, project assistant, or fellowship appointments must complete requirements for the degree within four semesters (not counting summer sessions or thesis credits). If the appointment is more than 33.4% the expectation is to complete requirements in the sixth semester.

OTHER

n/a

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Communicates well-developed musical ideas clearly and energetically in performance and, where applicable, in compositions.
2. Demonstrates knowledge of appropriate stylistic details in performance of music from a variety of historical periods and cultural origins.
3. Draws upon extensive understanding of a variety of musical cultures and historical periods for the preparation of a performance or a composition.
4. Selects the most appropriate methods of technique or notation to achieve the intended result in performance.
5. Shows ability to express, verbally and in writing, musical ideas and interpretive conclusions to peers and colleagues.
6. Recognizes and applies principles of ethical and professional conduct.
7. Respects colleagues and values contributions of others in collaborative endeavors.

PEOPLE

Faculty: Professors Cook (director), Blasius, Calderón, Chisholm, Crook, DiSanza, Dill, Doing, Fischer, Fulmer, Hetzler, Hyer, Johnson, Karp, Koza, Leckrone, Perry, Rowe, Schaffer, Schwendinger, Stowe, Swack, B. Taylor, C. Taylor, Teeple, Thimmig, Vardi, Vallon; Associate Professors Dobbs, Grabojs, Wallmann; Assistant Professors Altino, Lee, Ronis

The faculty of the Mead Witter School of Music is a distinguished group of educators, performing musicians, and active scholars. The backgrounds of performance faculty include rich experiences as professional musicians, researchers, recording artists, and entrepreneurs. Faculty in music education have particular insight into their field as a result of their backgrounds as school educators, performers, and scholars. In areas such as music theory and musicology, the musical community has high regard for the past and current contributions to the study of musical theory, historical perspectives on music, the role of music in societies around the world, and the unique contributions

of American musicians. Teaching is a priority for the faculty, who are readily accessible to students for advice and support. Faculty, staff, and students cooperate in extraordinary ways with joint ventures that reach across disciplines both in research or instruction.

ACCREDITATION

ACCREDITATION

National Association of Schools of Music (<https://nasm.arts-accredit.org>)

Accreditation status: Accredited. Next accreditation review: 2022–2023

MECHANICAL ENGINEERING

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Mechanical Engineering, Doctoral Minor (p. 1010)
- Mechanical Engineering, M.Eng. (p. 1010)
- Mechanical Engineering, M.S. (p. 1016)
- Mechanical Engineering, Ph.D. (p. 1031)

PEOPLE

Faculty: Professors Engelstad, Gandhi (chair), Lorenz, Moskwa, Nellis, Osswald, Pfothenauer, Rowlands, Rutland, Sanders, Shapiro, Thelen, Turng; Associate Professors Krupenkin, Negrut, Pfefferkorn, Ploeg, Qian, Rothamer, Shedd, Suresh, Trujillo, Zinn; Assistant Professors Adamczyk, Eriten, Henak, Kokjohn, Miller, Min, Roldan-Alzate, Rudolph; Faculty affiliates Allen, Bonazza, Clemons, Corradini, Holloway, Kammer, Luzzio, Reindl, Scarlet, Schauer, Smith

MECHANICAL ENGINEERING, DOCTORAL MINOR

REQUIREMENTS

Ph.D. candidates from other departments who wish to minor in mechanical engineering are required to complete a minimum of 9 credits of mechanical engineering courses (http://guide.wisc.edu/courses/m_e) numbered 400 or above with grades of B or better (grades of BC and below are not accepted for the minor). One of these courses must be at the 700 level or above.

PEOPLE

Faculty: Professors Engelstad, Gandhi (chair), Lorenz, Moskwa, Nellis, Osswald, Pfothenauer, Rowlands, Rutland, Sanders, Shapiro, Thelen, Turng; Associate Professors Krupenkin, Negrut, Pfefferkorn, Ploeg, Qian, Rothamer, Shedd, Suresh, Trujillo, Zinn; Assistant Professors Adamczyk, Eriten, Henak, Kokjohn, Miller, Min, Roldan-Alzate, Rudolph; Faculty

affiliates Allen, Bonazza, Clemons, Corradini, Holloway, Kammer, Luzzio, Reindl, Scarlet, Schauer, Smith

MECHANICAL ENGINEERING, M.ENG.

Students interested in the Mechanical Engineering M.Eng. degree should see information on its named option in Polymer Science (p. 1012).

ADMISSIONS

Students interested in the Mechanical Engineering M.Eng. degree should see admissions information on its named option in Polymer Science (p. 1012).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

FEDERAL LOANS

Students who are U.S. citizens or permanent residents are eligible to receive some level of funding through the federal direct loan program. These loans are available to qualified graduate students who are taking at least 4 credits during the fall and spring semesters, and 2 credits during summer. Private loans are also available. Learn more about financial aid at financialaid.wisc.edu (<https://financialaid.wisc.edu>).

EMPLOYER SUPPORT

Many students receive some financial support from their employers. Often, students find it beneficial to sit down with their employer and discuss how this program applies to their current and future responsibilities. Other key points to discuss include how participation will not interrupt your work schedule.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

Note: The major is currently non-admitting. Students are admitted through the named option (sub-major) below (p. 1011).

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
No	No	Yes	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 18 credits

Minimum Graduate Coursework Requirement At least 50% of credits applied toward the graduate degree credit requirement must be completed in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements Students must earn a C or above in all formal coursework.

Assessments and Examinations None.

Language Requirements No language requirements.

REQUIRED COURSES

See coursework requirements for the named option in Polymer Science (p. 1011).

NAMED OPTIONS (SUB-MAJORS)

A named option is a formally documented sub-major within an academic major program. Named options appear on the transcript with degree

conferral. Students pursuing the Master of Engineering in Mechanical Engineering must select the named option:

- Mechanical Engineering: Polymer Science, M.Eng. (p. 1012)

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://www.engr.wisc.edu/app/uploads/2017/01/ME-Grad-handbook-Update-August-2017-Final.pdf>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count graduate coursework from other institutions (up to 12 credits) toward the minimum graduate degree credit requirement and the minimum graduate coursework (50%) requirement. No credits from other institutions can be counted toward the minimum graduate residence credit requirement. Coursework earned five or more years prior to admission is not allowed to satisfy requirements.

UW–Madison Undergraduate

With advisor approval, up to 7 credits numbered 400 or above may be counted toward the minimum graduate degree credit requirement. These credits may be counted toward the minimum graduate coursework (50%) requirement if they are in courses numbered 700 or above. No credits may be counted toward the minimum graduate residence credit requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison University Special

With program approval, and payment of the difference in tuition, students are allowed to count up to 15 credits of coursework numbered 300 or above taken as a UW–Madison Special student toward the minimum graduate residence credit requirement and the minimum graduate degree credit requirement. These credits may be counted toward the minimum graduate coursework (50%) requirement if they are in courses numbered 700 or above. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could

result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

A semester GPA below 3.0 will result in the student being placed on academic probation. If a semester GPA of 3.0 is not attained during the subsequent semester of full time enrollment (or 12 credits of enrollment if enrolled part-time), this will be deemed unsatisfactory progress and the student may be dismissed from the program or allowed to continue for one additional semester based on advisor appeal to the Graduate School.

ADVISOR / COMMITTEE

All students are required to obtain a mechanical engineering faculty advisor who assists them in planning a course sequence that meets degrees requirements and who will discuss career objectives with the students.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Students enrolled in this program are not permitted to accept teaching assistantships, project assistantships, research assistantships or other appointments that would result in a tuition waiver. Students in this program cannot enroll in other graduate programs nor take courses outside the prescribed curriculum.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Demonstrate a strong understanding of mathematical, scientific, and engineering principles in the field.
2. Demonstrate an ability to formulate, analyze, and solve advanced engineering problems.

3. Demonstrate creative, independent problem solving skills.

4. Apply the latest scientific and technological advancements, advanced techniques, and modern engineering tools to these problems.

5. Recognize and apply principles of ethical and professional conduct.

PEOPLE

Faculty: Professors Gandhi (chair), Lorenz, Nellis, Osswald, Pfothenauer, Rowlands, Rutland, Sanders, Shapiro, Thelen, Turng; **Associate Professors** Krupenkin, Negrut, Pfefferkorn, Ploeg, Qian, Rothamer, Suresh, Trujillo, Zinn; Assistant Professors Adamczyk, Eriten, Henak, Kokjohn, Miller, Min, Roldan-Alzate, Rudolph; **Faculty affiliates** Allen, Bonazza, Holloway, Luzzio, Reindl, Scarlat, Schauer

MECHANICAL ENGINEERING: POLYMER SCIENCE, M.ENG.

This is a named option in the Mechanical Engineering M.Eng. (p. 1010)

The mechanical engineering M.Eng. named option: Polymer Science is a fully online degree that includes an interdisciplinary curriculum of courses incorporating the latest research and practices in plastics and polymer manufacturing. It is designed to prepare engineers for professional practice in the polymer industry. Please visit the Department of Engineering Professional Development's website (<https://epd.wisc.edu/online-degree/master-of-engineering-polymer-science>) for additional information about the online polymer science program.

ADMISSIONS

Students with a strong background in mechanical engineering or a related field with interest in furthering their education in mechanical engineering are encouraged to apply for admission to the department. Applicants accepted into the program generally have an undergraduate grade point average well above the graduate school minimum of 3.0 on a 4.0 scale. All applicants are required to take the Graduate Record Exam (GRE). Applications are evaluated on the basis of previous academic record, GRE scores, letters of recommendation, and a personal statement. For more information on admission requirements see the program website (<https://epd.wisc.edu/online-degree/master-of-engineering-polymer-science/#/apply>).

APPLICATION DEADLINE: JUNE 1

Applications are accepted for admission during the Fall semester

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

FEDERAL LOANS

Students who are U.S. citizens or permanent residents are eligible to receive some level of funding through the federal direct loan program. These loans are available to qualified graduate students who are taking at least four credits during the Fall and Spring semesters, and two credits during Summer. Private loans are also available. Learn more about financial aid at financialaid.wisc.edu (<https://financialaid.wisc.edu>).

EMPLOYER SUPPORT

Many students receive some financial support from their employers. Often, students find it beneficial to sit down with their employer and discuss how this program applies to their current and future responsibilities. Other key points to discuss include how participation will not interrupt your work schedule.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
No	No	Yes	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement	30 credits
Minimum Residence Credit Requirement	18 credits
Minimum Graduate Coursework Requirement	At least 50% of credits applied toward the graduate degree credit requirement must be completed in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.
Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	Students must earn a C or above in all formal coursework.
Assessments and Examinations	None.
Language Requirements	No language requirements.

REQUIRED COURSES

A minimum of 24 formal course credits are required (minimum of 15 formal course credits in Mechanical Engineering taken at UW-Madison), one of these courses must be numbered 700 or higher. Remaining credits can be formal course credits or independent study.

Code	Title	Credits
Students are required to take the following two courses:		
M E 417	Transport Phenomena in Polymer Processing	3
M E 418	Engineering Design with Polymers	3
Students are required to take one of the following 700-level courses:		
M E/E M A 708	Advanced Composite Materials	
M E 717	Advanced Polymer Processing	
M E 718	Modeling and Simulation in Polymer Processing	

Courses Numbered 400 and above in M E which count towards course, independent study, research credit requirements:

Code	Title	Credits
M E/B M E 415	Biomechanics of Human Movement	3
M E 417	Transport Phenomena in Polymer Processing	3
M E 418	Engineering Design with Polymers	3
M E 419	Fundamentals of Injection Molding	3
M E 420	Introduction to Polymer Composites Processing	3
M E/STAT 424	Statistical Experimental Design	3

M E/CBE/CHEM/ E M A 425	Undergraduate Rheology Seminar	1	M E 561	Intermediate Thermodynamics	3
M E 429	Metal Cutting	3	M E 563	Intermediate Fluid Dynamics	3
M E/M S & E 435	Joining of Materials: Structural, Electronic, Bio and Nano Materials	3	M E 564	Heat Transfer	3
M E 437	Advanced Materials Selection	3	M E/N E 565	Power Plant Technology	3
M E/E C E 439	Introduction to Robotics	3	M E/E P 566	Cryogenics	3
M E 440	Intermediate Vibrations	3	M E/CBE 567	Solar Energy Technology	3
M E/BSE/ FOOD SCI 441	Rheology of Foods and Biomaterials	3	M E 569	Applied Combustion	3
M E 444	Design Problems in Elasticity	3	M E/E M A 570	Experimental Mechanics	3
M E 445	Mechatronics in Control & Product Realization	3	M E 572	Intermediate Gas Dynamics	3
M E 446	Automatic Controls	3	M E 573	Computational Fluid Dynamics	3
M E 447	Computer Control of Machines and Processes	3	M E/E C E 577	Automatic Controls Laboratory	4
M E 448	Mechanical Systems Analysis	3	M E 601	Special Topics in Mechanical Engineering	1-3
M E 449	Redesign and Prototype Fabrication	3	M E/I SY E 641	Design and Analysis of Manufacturing Systems	3
M E 450	Design and Dynamics of Vehicles	3	M E/I SY E 643	Performance Analysis of Manufacturing Systems	3
M E 451	Kinematics and Dynamics of Machine Systems	3	M E 699	Advanced Independent Study	1-3
M E 460	Applied Thermal / Structural Finite Element Analysis	3	M E 702	Graduate Cooperative Education Program	1-2
M E 461	Thermal Systems Modeling	3	M E/E M A 706	Plates, Shells and Pressure Vessels	3
M E/M S & E 462	Welding Metallurgy	3	M E/E M A 708	Advanced Composite Materials	3
M E 466	Air Pollution Effects, Measurements and Control	3	M E 714	Advanced Materials Processing and Manufacturing	3
M E 469	Internal Combustion Engines	3	M E 717	Advanced Polymer Processing	3
M E/BSE 475	Engineering Principles of Agricultural Machinery	3	M E 718	Modeling and Simulation in Polymer Processing	3
M E/BSE 476	Engineering Principles of Off-Road Vehicles	3	M E/E M A 722	Introduction to Polymer Rheology	3
M E 489	Honors in Research	1-3	M E/E C E 739	Advanced Robotics	3
M E 491	Mechanical Engineering Projects I	1-3	M E 740	Advanced Vibrations	3
M E 492	Mechanical Engineering Projects II	1-3	M E 746	Dynamics of Controlled Systems	3
M E/CIV ENGR/ E M A 508	Composite Materials	3	M E 747	Advanced Computer Control of Machines and Processes	3
M E/I SY E 510	Facilities Planning	3	M E 748	Optimum Design of Mechanical Elements and Systems	3
M E/I SY E 512	Inspection, Quality Control and Reliability	3	M E 751	Matrix Methods in the Design and Analysis of Mechanisms	3
M E/I SY E 513	Analysis of Capital Investments	3	M E 753	Friction, Lubrication and Wear	3
M E 514	Additive Manufacturing	3	M E 758	Solid Modeling	3
M E/N E 520	Two-Phase Flow and Heat Transfer	3	M E/COMP SCI/ E C E/E M A/E P 759	High Performance Computing for Applications in Engineering	3
M E/CBE 525	Macromolecular Hydrodynamics	3	M E 761	Topics in Thermodynamics	3
M E/COMP SCI/ E C E 532	Matrix Methods in Machine Learning	3	M E 764	Advanced Heat Transfer I- Conduction	3
M E 535	Computer-Aided Geometric Design	3	M E 765	Advanced Heat Transfer II- Convection	3
M E/COMP SCI/ E C E 539	Introduction to Artificial Neural Network and Fuzzy Systems	3	M E 769	Combustion Processes	3
M E/E M A 540	Experimental Vibration and Dynamic System Analysis	3	M E 770	Advanced Experimental Instrumentation	3
M E 545	Fluid Power	3	M E 773	Boundary Layer Theory	3
M E 549	Product Design	3	M E 774	Chem Kinetics of Combust Systems	3
M E/COMP SCI/ I SY E 558	Introduction to Computational Geometry	3	M E 775	Turbulent Heat and Momentum Transfer	3
			M E/E P 777	Vacuum Technology	3

M E 790	Master's Research and Thesis	1-9
M E 890	PhD Research and Thesis	1-9
M E 903	Graduate Seminar	0
M E/CBE/CHEM/ E M A 925	Rheology Research Seminar	1
M E 964	Special Advanced Topics in Mechanical Engineering	1-3
M E 990	Dissertator Research and Thesis	1-9
M E 999	Advanced Independent Study	1-5

or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

A semester GPA below 3.0 will result in the student being placed on academic probation. If a semester GPA of 3.0 is not attained during the subsequent semester of full time enrollment (or 12 credits of enrollment if enrolled part-time), this will be deemed unsatisfactory progress and the student may be dismissed from the program or allowed to continue for one additional semester based on advisor appeal to the Graduate School.

ADVISOR / COMMITTEE

All students are required to obtain a mechanical engineering faculty advisor who assists them in planning a course sequence that meets degrees requirements and who will discuss career objectives with the students.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Students enrolled in this program are not permitted to accept teaching assistantships, project assistantships, research assistantships or other appointments that would result in a tuition waiver. Students in this program cannot enroll in other graduate programs nor take courses outside the prescribed curriculum.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

NAMED OPTION-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://www.engr.wisc.edu/app/uploads/2017/01/ME-Grad-handbook-Update-August-2017-Final.pdf>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count graduate coursework from other institutions (up to 12 credits) toward the minimum graduate degree credit requirement and the minimum graduate coursework (50%) requirement. No credits from other institutions can be counted toward the minimum graduate residence credit requirement. Coursework earned five or more years prior to admission is not allowed to satisfy requirements.

UW–Madison Undergraduate

With advisor approval, up to 7 credits numbered 400 or above may be counted toward the minimum graduate degree credit requirement. These credits may be counted toward the minimum graduate coursework (50%) requirement if they are in courses numbered 700 or above. No credits may be counted toward the minimum graduate residence credit requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison University Special

With program approval, and payment of the difference in tuition, students are allowed to count up to 15 credits of coursework numbered 300 or above taken as a UW–Madison Special student toward the minimum graduate residence credit requirement and the minimum graduate degree credit requirement. These credits may be counted toward the minimum graduate coursework (50%) requirement if they are in courses numbered 700 or above. Coursework earned five

PEOPLE

Professors Osswald, Rowlands, Turng

MECHANICAL ENGINEERING, M.S.

The Department of Mechanical Engineering offers master of science (M.S.) degrees in Mechanical Engineering with a thesis option or a course option. The thesis option and course option M.S. degrees take approximately two years to complete. The thesis option has a significant research component giving students valuable hands on research experience with mentoring by faculty in the Department of Mechanical Engineering. The course-option M.S. degree has a stronger focus on coursework but also requires at least 3 credits of independent study mentored by faculty in the Department of Mechanical Engineering. For either option students are mentored by the world-class faculty in the mechanical engineering department at UW–Madison.

For a list of mechanical engineering faculty along with faculty research interests, please visit our faculty directory (<https://directory.engr.wisc.edu/display.php/faculty?page=me&search=faculty>). For more information on research areas see our page on research in Mechanical Engineering (<https://www.engr.wisc.edu/department/mechanical-engineering/research-in-mechanical-engineering>).

ADMISSIONS

Students with a strong background in mechanical engineering or a related field with interest in furthering their education in mechanical engineering are encouraged to apply for admission to the department. Applicants accepted into the program generally have an undergraduate grade point average well above the graduate school minimum of 3.0 on a 4.0 scale. All applicants are required to take the Graduate Record Exam (GRE). Applications are evaluated on the basis of previous academic record, GRE scores, letters of recommendation, and a personal statement. For more information on admission requirements see the department's MS degree website (<https://www.engr.wisc.edu/department/mechanical-engineering/academics/masters-degree-mechanical-engineering-2-2>).

APPLICATION DEADLINE: JANUARY 1

Applications are accepted for admission during the fall semester.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from

the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

There are three mechanisms for Graduate Student funding through the university for Mechanical Engineering M.S. students:

1. Fellowships
2. Graduate assistantships: project assistantships, teaching assistantships, and research assistantships
3. Traineeships

Funding is awarded based on the qualifications of the student, the number of applicants, the amount of available funding, and the number of continuing students receiving support. Fellowship and research assistantship funding is only considered for thesis-based M.S. students. You can apply for funding for research assistantships by contacting individual faculty members directly. Please check our website (<http://directory.engr.wisc.edu/me/faculty>) to look for faculty (only those listed with titles of assistant professor, associate professor, or professor can serve as graduate student advisors). Search for faculty who have research interests that align closely with your own by viewing faculty directory entries, visiting the faculty's website (linked from the directory page), and reviewing publications by the faculty member. Once you have identified faculty with interests close to your own, you are encouraged to contact them by email to inquire regarding available research assistant positions. The admissions office does not know if a particular professor has research assistant positions available.

Students who apply to the department will be automatically considered for fellowship opportunities within the department. For information on applying for teaching assistant positions and for other information on funding please see the department website (<https://www.engr.wisc.edu/department/mechanical-engineering/academics/phd-in-mechanical-engineering>).

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-

campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement Thesis track: 21 credits.
Course track: 18 credits.

Minimum Graduate Coursework Requirement Half of degree coursework (15 out of 30 total credits) must be in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements Students must earn a C or above in all formal coursework. Students may not have any more than two Incompletes on their record at any one time.

Assessments and Examinations The thesis track requires that the student pass a formal thesis defense.

Language Requirements No language requirements.

REQUIRED COURSES

For both the thesis or course track¹, two semesters of M E 903 Graduate Seminar are required. These should be taken the first two semester the student is in residence.

Thesis-track requirements: a minimum of 18 formal course credits (minimum of 9 formal course credits in ME taken at UW–Madison); one of these courses must be numbered 700 or higher, and a minimum of 9 thesis credits (M E 790 Master's Research and Thesis).

Course-track requirements: a minimum of 24 formal course credits (minimum of 15 formal course credits in ME taken at UW–Madison); one of these courses must be numbered 700 or higher, and a minimum of 3 thesis credits of independent study (M E 699 Advanced Independent Study).

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Courses Numbered 400 and above in M E which count toward course, independent study, research credit requirements:

Code	Title	Credits
M E/B M E 415	Biomechanics of Human Movement	3
M E 417	Transport Phenomena in Polymer Processing	3
M E 418	Engineering Design with Polymers	3
M E 419	Fundamentals of Injection Molding	3
M E 420	Introduction to Polymer Composites Processing	3
M E/STAT 424	Statistical Experimental Design	3
M E/CBE/CHEM/ E M A 425	Undergraduate Rheology Seminar	1
M E 429	Metal Cutting	3
M E/M S & E 435	Joining of Materials: Structural, Electronic, Bio and Nano Materials	3
M E 437	Advanced Materials Selection	3
M E/E C E 439	Introduction to Robotics	3
M E 440	Intermediate Vibrations	3
M E/BSE/ FOOD SCI 441	Rheology of Foods and Biomaterials	3
M E 444	Design Problems in Elasticity	3
M E 445	Mechatronics in Control & Product Realization	3
M E 446	Automatic Controls	3
M E 447	Computer Control of Machines and Processes	3
M E 448	Mechanical Systems Analysis	3
M E 449	Redesign and Prototype Fabrication	3
M E 450	Design and Dynamics of Vehicles	3
M E 451	Kinematics and Dynamics of Machine Systems	3
M E 460	Applied Thermal / Structural Finite Element Analysis	3
M E 461	Thermal Systems Modeling	3
M E/M S & E 462	Welding Metallurgy	3
M E 466	Air Pollution Effects, Measurements and Control	3
M E 469	Internal Combustion Engines	3
M E/BSE 475	Engineering Principles of Agricultural Machinery	3
M E/BSE 476	Engineering Principles of Off-Road Vehicles	3
M E 489	Honors in Research	1-3
M E 491	Mechanical Engineering Projects I	1-3
M E 492	Mechanical Engineering Projects II	1-3
M E/CIV ENGR/ E M A 508	Composite Materials	3
M E/I SY E 510	Facilities Planning	3
M E/I SY E 512	Inspection, Quality Control and Reliability	3
M E/I SY E 513	Analysis of Capital Investments	3
M E 514	Additive Manufacturing	3
M E/N E 520	Two-Phase Flow and Heat Transfer	3
M E/CBE 525	Macromolecular Hydrodynamics	3

M E/COMP SCI/ E C E 532	Matrix Methods in Machine Learning	3	M E 764	Advanced Heat Transfer I- Conduction	3
M E 535	Computer-Aided Geometric Design	3	M E 765	Advanced Heat Transfer II- Convection	3
M E/COMP SCI/ E C E 539	Introduction to Artificial Neural Network and Fuzzy Systems	3	M E 769	Combustion Processes	3
M E/E M A 540	Experimental Vibration and Dynamic System Analysis	3	M E 770	Advanced Experimental Instrumentation	3
M E 545	Fluid Power	3	M E 773	Boundary Layer Theory	3
M E 549	Product Design	3	M E 774	Chem Kinetics of Combust Systems	3
M E/COMP SCI/ I S Y E 558	Introduction to Computational Geometry	3	M E 775	Turbulent Heat and Momentum Transfer	3
M E 561	Intermediate Thermodynamics	3	M E/E P 777	Vacuum Technology	3
M E 563	Intermediate Fluid Dynamics	3	M E 790	Master's Research and Thesis	1-9
M E 564	Heat Transfer	3	M E 890	PhD Research and Thesis	1-9
M E/N E 565	Power Plant Technology	3	M E 903	Graduate Seminar	0
M E/E P 566	Cryogenics	3	M E/CBE/CHEM/ E M A 925	Rheology Research Seminar	1
M E/CBE 567	Solar Energy Technology	3	M E 964	Special Advanced Topics in Mechanical Engineering	1-3
M E 569	Applied Combustion	3	M E 990	Dissertator Research and Thesis	1-9
M E/E M A 570	Experimental Mechanics	3	M E 999	Advanced Independent Study	1-5
M E 572	Intermediate Gas Dynamics	3			
M E 573	Computational Fluid Dynamics	3			
M E/E C E 577	Automatic Controls Laboratory	4			
M E 601	Special Topics in Mechanical Engineering	1-3			
M E/I S Y E 641	Design and Analysis of Manufacturing Systems	3			
M E/I S Y E 643	Performance Analysis of Manufacturing Systems	3			
M E 699	Advanced Independent Study	1-3			
M E 702	Graduate Cooperative Education Program	1-2			
M E/E M A 706	Plates, Shells and Pressure Vessels	3			
M E/E M A 708	Advanced Composite Materials	3			
M E 714	Advanced Materials Processing and Manufacturing	3			
M E 717	Advanced Polymer Processing	3			
M E 718	Modeling and Simulation in Polymer Processing	3			
M E/E M A 722	Introduction to Polymer Rheology	3			
M E/E C E 739	Advanced Robotics	3			
M E 740	Advanced Vibrations	3			
M E 746	Dynamics of Controlled Systems	3			
M E 747	Advanced Computer Control of Machines and Processes	3			
M E 748	Optimum Design of Mechanical Elements and Systems	3			
M E 751	Matrix Methods in the Design and Analysis of Mechanisms	3			
M E 753	Friction, Lubrication and Wear	3			
M E 758	Solid Modeling	3			
M E/COMP SCI/ E C E/E M A/E P 759	High Performance Computing for Applications in Engineering	3			
M E 761	Topics in Thermodynamics	3			

NAMED OPTIONS (SUB-MAJORS)

A named option is a formally documented sub-major within an academic major program. Named options appear on the transcript with degree conferral.

- Mechanical Engineering: Accelerated Program, M.S. (p. 1019)
- Mechanical Engineering: Automotive Engineering, M.S. (p. 1020)
- Mechanical Engineering: Controls, M.S. (p. 1023)
- Mechanical Engineering: Modeling and Simulation in Mechanical Engineering, M.S. (p. 1027)

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://www.engr.wisc.edu/app/uploads/2017/01/ME-Grad-handbook-Update-August-2017-Final.pdf>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count graduate coursework from other institutions (up to 50% of the formal course requirement) toward the minimum graduate degree credit requirement and the minimum graduate coursework (50%) requirement. No credits from

other institutions can be counted toward the minimum graduate residence credit requirement. Coursework earned five or more years prior to admission is not allowed to satisfy requirements.

UW–Madison Undergraduate

Up to 7 credits numbered 400 or above may be counted toward the minimum graduate degree credit requirement. These credits may be counted toward the minimum graduate coursework (50%) requirement if they are in courses numbered 700 or above. No credits may be counted toward the minimum graduate residence credit requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison University Special

With program approval, and payment of the difference in tuition, students are allowed to count up to 15 credits of coursework numbered 400 or above taken as a UW–Madison Special student toward the minimum graduate residence credit requirement and the minimum graduate degree credit requirement. These credits may be counted toward the minimum graduate coursework (50%) requirement if they are in courses numbered 700 or above. Coursework earned five or more years prior to admission is not allowed to satisfy requirements.

emeritus status, or a UW–Madison research scientist with principal investigator status who has been approved by the M E executive committee.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

n/a

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Demonstrate a strong understanding of mathematical, scientific, and engineering principles in the field.
2. Demonstrate an ability to formulate, analyze, and independently solve advanced engineering problems.
3. Apply the relevant scientific and technological advancements, techniques, and engineering tools to address these problems.
4. Recognize and apply principles of ethical and professional conduct.

PEOPLE

Faculty: Professors Gandhi (chair), Lorenz, Nellis, Osswald, Pfothenauer, Rowlands, Rutland, Sanders, Shapiro, Thelen, Turng; **Associate Professors** Krupenkin, Negrut, Pfefferkorn, Ploeg, Qian, Rothamer, Suresh, Trujillo, Zinn; Assistant Professors Adamczyk, Eriten, Henak, Kokjohn, Miller, Min, Roldan-Alzate, Rudolph; **Faculty affiliates** Allen, Bonazza, Holloway, Luzzio, Reindl, Scarlat, Schauer

MECHANICAL ENGINEERING: ACCELERATED PROGRAM, M.S.

This is a named option within the Mechanical Engineering M.S. (p. 1016)

The Department of Mechanical Engineering offers a Master of Science (M.S.) degree in Mechanical Engineering, Accelerated Program. The Accelerated Program takes approximately three terms (one calendar year) to complete. The Accelerated Program only includes coursework. Each

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

A semester GPA below 3.0 will result in the student being placed on academic probation. If a semester GPA of 3.0 is not attained during the subsequent semester of full time enrollment (or 12 credits of enrollment if enrolled part-time), this will be deemed unsatisfactory progress and the student may be dismissed from the program or allowed to continue for one additional semester based on advisor appeal to the Graduate School.

ADVISOR / COMMITTEE

All students are required to obtain a mechanical engineering faculty advisor who assists them in planning a course sequence that meets degrees requirements and who will discuss career objectives with the students.

Thesis-track: An M.S. thesis committee must include the student's mechanical engineering faculty advisor and at least two other members: one other graduate faculty or former graduate faculty up to one year after resignation or retirement, and one of the following: a third graduate faculty member, a retired faculty member with

student will be assigned an academic advisor from the Department of Mechanical Engineering.

For a list of mechanical engineering courses 400-level and above, please visit our list of mechanical engineering courses (http://guide.wisc.edu/courses/m_e).

PEOPLE

Faculty: Professors Gandhi (chair), Lorenz, Nellis, Osswald, Pfothenauer, Rowlands, Rutland, Sanders, Shapiro, Thelen, Turng; **Associate Professors** Krupenkin, Negrut, Pfefferkorn, Ploeg, Qian, Rothamer, Suresh, Trujillo, Zinn; Assistant Professors Adamczyk, Eriten, Henak, Kokjohn, Miller, Min, Roldan-Alzate, Rudolph; **Faculty affiliates** Allen, Bonazza, Holloway, Luzzio, Reindl, Scarlat, Schauer

MECHANICAL ENGINEERING: AUTOMOTIVE ENGINEERING, M.S.

This is a named option within the Mechanical Engineering M.S. (p. 1016)

The Department of Mechanical Engineering M.S. named option: Automotive Engineering is an accelerated on campus degree program (completed in 12 months) geared toward preparing students for a career in the automotive industry. With a strong emphasis on in-cylinder energy conversion processes, graduates of this program will be poised to immediately participate in engine development programs in the automotive, heavy duty, or recreational engine sectors. The coursework includes 12 credits of thermofluid processes, 12 formal credits in other relevant topics, and a 6 credits of summer practicum that pairs a hands-on laboratory course with a hands-on modeling course. The summer practicum coalesces information from coursework by applying it to internal combustion engines in a hands-on environment.

For more information on the Automotive Engineering named option see the program website (<https://www.engr.wisc.edu/department/mechanical-engineering/academics/masters-degree-mechanical-engineering-2>).

ADMISSIONS

Students with a strong background in mechanical engineering or a related field with interest in furthering their education in mechanical engineering are encouraged to apply for admission to the department. Applicants accepted into the program generally have an undergraduate grade point average well above the graduate school minimum of 3.0 on a 4.0 scale. All applicants are required to take the Graduate Record Exam (GRE). Applications are evaluated on the basis of previous academic record, GRE scores, letters of recommendation, and a personal statement. For more information on admission requirements see the program's website (<https://www.engr.wisc.edu/department/mechanical-engineering/academics/masters-degree-mechanical-engineering-2>).

APPLICATION DEADLINE: JANUARY 1

Applications are accepted for admission during the fall semester.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements

of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Students in this program are NOT be eligible for teaching assistant, research assistant, or project assistant positions as this is an accelerated coursework ONLY degree.

FEDERAL LOANS

Students who are U.S. citizens or permanent residents are eligible to receive some level of funding through the federal direct loan program. These loans are available to qualified graduate students who are taking at least 4 credits during the fall and spring semesters, and 2 credits during summer. Private loans are also available. Learn more about financial aid at their website (<https://financialaid.wisc.edu>).

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	Yes

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules.

Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement	30 credits
Minimum Residence Credit Requirement	18 credits
Minimum Graduate Coursework Requirement	Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (https://registrar.wisc.edu/course-guide/).
Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	Students must earn a C or above in all formal coursework. Students may not have any more than two incompletes on their record at any one time.
Assessments and Examinations	None.
Language Requirements	No language requirements.

REQUIRED COURSES

A minimum of 24 formal course credits are required (minimum of 15 credits in Mechanical Engineering taken at UW-Madison), one of these courses must be numbered 700 or higher.

Code	Title	Credits
M E 903	Graduate Seminar ¹	0
A minimum of 12 credits (4 courses) must be taken from the courses listed:		
M E 461	Thermal Systems Modeling	
M E 466	Air Pollution Effects, Measurements and Control	
M E 469	Internal Combustion Engines	
M E 561	Intermediate Thermodynamics	
M E 563	Intermediate Fluid Dynamics	
M E 564	Heat Transfer	
M E 569	Applied Combustion	
M E 572	Intermediate Gas Dynamics	
M E 573	Computational Fluid Dynamics	
M E 761	Topics in Thermodynamics	
M E 764	Advanced Heat Transfer I- Conduction	
M E 769	Combustion Processes	
M E 770	Advanced Experimental Instrumentation	
M E 774	Chem Kinetics of Combust Systems	

M E 775 Turbulent Heat and Momentum Transfer

During the summer term, students are required to enroll in Independent Study for the following:

M E 699	Advanced Independent Study (Engine Testing Practicum)	3
M E 699	Advanced Independent Study (Engine Computational Fluid Dynamics Practicum)	3

¹ Two semesters of M E 903 Graduate Seminar are required. These should be taken the first two semester the student is in residence.

Courses Numbered 400 and above in M E which count toward course, independent study, research credit requirements:

Code	Title	Credits
M E/B M E 415	Biomechanics of Human Movement	3
M E 417	Transport Phenomena in Polymer Processing	3
M E 418	Engineering Design with Polymers	3
M E 419	Fundamentals of Injection Molding	3
M E 420	Introduction to Polymer Composites Processing	3
M E/STAT 424	Statistical Experimental Design	3
M E/CBE/CHEM/ E M A 425	Undergraduate Rheology Seminar	1
M E 429	Metal Cutting	3
M E/M S & E 435	Joining of Materials: Structural, Electronic, Bio and Nano Materials	3
M E 437	Advanced Materials Selection	3
M E/E C E 439	Introduction to Robotics	3
M E 440	Intermediate Vibrations	3
M E/BSE/ FOOD SCI 441	Rheology of Foods and Biomaterials	3
M E 444	Design Problems in Elasticity	3
M E 445	Mechatronics in Control & Product Realization	3
M E 446	Automatic Controls	3
M E 447	Computer Control of Machines and Processes	3
M E 448	Mechanical Systems Analysis	3
M E 449	Redesign and Prototype Fabrication	3
M E 450	Design and Dynamics of Vehicles	3
M E 451	Kinematics and Dynamics of Machine Systems	3
M E 460	Applied Thermal / Structural Finite Element Analysis	3
M E 461	Thermal Systems Modeling	3
M E/M S & E 462	Welding Metallurgy	3
M E 466	Air Pollution Effects, Measurements and Control	3
M E 469	Internal Combustion Engines	3
M E/BSE 475	Engineering Principles of Agricultural Machinery	3
M E/BSE 476	Engineering Principles of Off-Road Vehicles	3

M E 489	Honors in Research	1-3	M E 747	Advanced Computer Control of Machines and Processes	3
M E 491	Mechanical Engineering Projects I	1-3	M E 748	Optimum Design of Mechanical Elements and Systems	3
M E 492	Mechanical Engineering Projects II	1-3	M E 751	Matrix Methods in the Design and Analysis of Mechanisms	3
M E/CIV ENGR/ E M A 508	Composite Materials	3	M E 753	Friction, Lubrication and Wear	3
M E/I SY E 510	Facilities Planning	3	M E 758	Solid Modeling	3
M E/I SY E 512	Inspection, Quality Control and Reliability	3	M E/COMP SCI/ E C E M A/E P 759	High Performance Computing for Applications in Engineering	3
M E/I SY E 513	Analysis of Capital Investments	3	M E 761	Topics in Thermodynamics	3
M E 514	Additive Manufacturing	3	M E 764	Advanced Heat Transfer I- Conduction	3
M E/N E 520	Two-Phase Flow and Heat Transfer	3	M E 765	Advanced Heat Transfer II- Convection	3
M E/CBE 525	Macromolecular Hydrodynamics	3	M E 769	Combustion Processes	3
M E/COMP SCI/ E C E 532	Matrix Methods in Machine Learning	3	M E 770	Advanced Experimental Instrumentation	3
M E 535	Computer-Aided Geometric Design	3	M E 773	Boundary Layer Theory	3
M E/COMP SCI/ E C E 539	Introduction to Artificial Neural Network and Fuzzy Systems	3	M E 774	Chem Kinetics of Combust Systems	3
M E/E M A 540	Experimental Vibration and Dynamic System Analysis	3	M E 775	Turbulent Heat and Momentum Transfer	3
M E 545	Fluid Power	3	M E/E P 777	Vacuum Technology	3
M E 549	Product Design	3	M E 790	Master's Research and Thesis	1-9
M E/COMP SCI/ I SY E 558	Introduction to Computational Geometry	3	M E 890	PhD Research and Thesis	1-9
M E 561	Intermediate Thermodynamics	3	M E 903	Graduate Seminar	0
M E 563	Intermediate Fluid Dynamics	3	M E/CBE/CHEM/ E M A 925	Rheology Research Seminar	1
M E 564	Heat Transfer	3	M E 964	Special Advanced Topics in Mechanical Engineering	1-3
M E/N E 565	Power Plant Technology	3	M E 990	Dissertator Research and Thesis	1-9
M E/E P 566	Cryogenics	3	M E 999	Advanced Independent Study	1-5
M E/CBE 567	Solar Energy Technology	3			
M E 569	Applied Combustion	3			
M E/E M A 570	Experimental Mechanics	3			
M E 572	Intermediate Gas Dynamics	3			
M E 573	Computational Fluid Dynamics	3			
M E/E C E 577	Automatic Controls Laboratory	4			
M E 601	Special Topics in Mechanical Engineering	1-3			
M E/I SY E 641	Design and Analysis of Manufacturing Systems	3			
M E/I SY E 643	Performance Analysis of Manufacturing Systems	3			
M E 699	Advanced Independent Study	1-3			
M E 702	Graduate Cooperative Education Program	1-2			
M E/E M A 706	Plates, Shells and Pressure Vessels	3			
M E/E M A 708	Advanced Composite Materials	3			
M E 714	Advanced Materials Processing and Manufacturing	3			
M E 717	Advanced Polymer Processing	3			
M E 718	Modeling and Simulation in Polymer Processing	3			
M E/E M A 722	Introduction to Polymer Rheology	3			
M E/E C E 739	Advanced Robotics	3			
M E 740	Advanced Vibrations	3			
M E 746	Dynamics of Controlled Systems	3			

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

NAMED OPTION-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://www.engr.wisc.edu/app/uploads/2017/01/ME-Grad-handbook-Update-August-2017-Final.pdf>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count graduate coursework from other institutions (up to 12 credits) toward the minimum graduate degree credit requirement and the minimum graduate coursework (50%) requirement. No credits from other institutions can be counted toward the minimum graduate residence credit requirement. Coursework earned five or more years prior to admission is not allowed to satisfy requirements.

UW–Madison Undergraduate

With advisor approval, up to 7 credits numbered 400 or above may be counted toward the minimum graduate degree credit requirement. These credits may be counted toward the minimum graduate coursework (50%) requirement if they are in courses numbered 700 or above. No credits may be counted toward the minimum graduate residence credit requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison University Special

With program approval, and payment of the difference in tuition, students are allowed to count up to 15 credits of coursework numbered 400 or above taken as a UW–Madison Special student toward the minimum graduate residence credit requirement and the minimum graduate degree credit requirement. These credits may be counted toward the minimum graduate coursework (50%) requirement if they are in courses numbered 700 or above. Coursework earned five or more years prior to admission is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

A semester GPA below 3.0 will result in the student being placed on academic probation. If a semester GPA of 3.0 is not attained during the subsequent semester of full time enrollment (or 12 credits of enrollment if enrolled part-time), this will be deemed unsatisfactory

progress and the student may be dismissed from the program or allowed to continue for one additional semester based on advisor appeal to the Graduate School.

ADVISOR / COMMITTEE

All students are required to obtain a mechanical engineering faculty advisor who assists them in planning a course sequence that meets degrees requirements and who will discuss career objectives with the students.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Students enrolled in this program are not permitted to accept teaching assistantships, project assistantships, research assistantships or other appointments that would result in a tuition waiver. Students in this program cannot enroll in other graduate programs nor take courses outside the prescribed curriculum.

PEOPLE

Faculty: Professors Ghandhi (chair), Lorenz, Nellis, Osswald, Pfothenauer, Rowlands, Rutland, Sanders, Shapiro, Thelen, Turng; **Associate Professors** Krupenkin, Negrut, Pfefferkorn, Ploeg, Qian, Rothamer, Suresh, Trujillo, Zinn; Assistant Professors Adamczyk, Eriten, Henak, Kokjohn, Miller, Min, Roldan-Alzate, Rudolph; **Faculty affiliates** Allen, Bonazza, Holloway, Luzzio, Reindl, Scarlat, Schauer

MECHANICAL ENGINEERING: CONTROLS, M.S.

Admissions to the Mechanical Engineering: Controls, M.S. have been suspended as of fall 2018. If you have any questions, please contact the department (gradadmissions@epd.wisc.edu).

This is a named option within the Mechanical Engineering M.S. (p. 1016)

The mechanical engineering M.S. named option: controls is a primarily online degree that includes a full curriculum of courses incorporating the latest research and practices in drive, converter control, and sensor integration. This program consists of 27 online credits and 3 credits taken on campus through a summer laboratory course. The program includes courses in both mechanical engineering and electrical engineering and is designed for practicing engineers.

ADMISSIONS

Admissions to the Mechanical Engineering: Controls, M.S. have been suspended as of fall 2018. If you have any questions, please contact the department (gradadmissions@epd.wisc.edu).

Students with a strong background in mechanical engineering or a related field with interest in furthering their education in mechanical engineering are encouraged to apply for admission to the department. Applicants accepted into the program generally have an undergraduate grade point average well above the graduate school minimum of 3.0 on a 4.0 scale. All applicants are required to take the Graduate Record Exam (GRE). Applications are evaluated on the basis of previous academic record, GRE scores, letters of recommendation, and a personal statement.

APPLICATION DEADLINE: JUNE 1

Applications are accepted for admission during the fall semester.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

FEDERAL LOANS

Students who are U.S. citizens or permanent residents are eligible to receive some level of funding through the federal direct loan program. These loans are available to qualified graduate students who are taking at least 4 credits during the fall and spring semesters, and 2 credits during summer. Private loans are also available. Learn more about financial aid at financialaid.wisc.edu (<https://financialaid.wisc.edu>).

EMPLOYER SUPPORT

Many students receive some financial support from their employers. Often, students find it beneficial to sit down with their employer and discuss how this program applies to their current and future responsibilities. Other key points to discuss include how participation will not interrupt your work schedule.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
No	No	Yes	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum 30 credits

Credit Requirement

Minimum 18 credits

Residence Credit Requirement

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall 3.00 GPA required.

Graduate GPA Requirement

Other Grade Requirements Students must earn a C or above in all coursework.

Assessments and Examinations None.

Language Requirements No language requirements.

REQUIRED COURSES

A minimum of 24 formal course credits (minimum of 15 formal course credits in Mechanical Engineering taken at UW–Madison), one of these courses must be numbered 700 or higher. A minimum of 3 credits of independent study (M E 699). Remaining credits can be formal course credits or independent study.

Code	Title	Credits
Students are required to take the following course:		
M E/E C E 577	Automatic Controls Laboratory	4
Students are required to take 9 credits (3 courses) from the following ME courses:		
M E 446	Automatic Controls	
M E 447	Computer Control of Machines and Processes	
M E 601	Special Topics in Mechanical Engineering	
M E/E C E 739	Advanced Robotics	
M E 746	Dynamics of Controlled Systems	
M E 747	Advanced Computer Control of Machines and Processes	

Courses Numbered 400 and above in M E which count toward course, independent study, research credit requirements:

Code	Title	Credits
M E/B M E 415	Biomechanics of Human Movement	3
M E 417	Transport Phenomena in Polymer Processing	3
M E 418	Engineering Design with Polymers	3
M E 419	Fundamentals of Injection Molding	3
M E 420	Introduction to Polymer Composites Processing	3
M E/STAT 424	Statistical Experimental Design	3
M E/CBE/CHEM/ E M A 425	Undergraduate Rheology Seminar	1
M E 429	Metal Cutting	3
M E/M S & E 435	Joining of Materials: Structural, Electronic, Bio and Nano Materials	3
M E 437	Advanced Materials Selection	3
M E/E C E 439	Introduction to Robotics	3
M E 440	Intermediate Vibrations	3
M E/BSE/ FOOD SCI 441	Rheology of Foods and Biomaterials	3
M E 444	Design Problems in Elasticity	3
M E 445	Mechatronics in Control & Product Realization	3
M E 446	Automatic Controls	3
M E 447	Computer Control of Machines and Processes	3
M E 448	Mechanical Systems Analysis	3
M E 449	Redesign and Prototype Fabrication	3
M E 450	Design and Dynamics of Vehicles	3

M E 451	Kinematics and Dynamics of Machine Systems	3
M E 460	Applied Thermal / Structural Finite Element Analysis	3
M E 461	Thermal Systems Modeling	3
M E/M S & E 462	Welding Metallurgy	3
M E 466	Air Pollution Effects, Measurements and Control	3
M E 469	Internal Combustion Engines	3
M E/BSE 475	Engineering Principles of Agricultural Machinery	3
M E/BSE 476	Engineering Principles of Off-Road Vehicles	3
M E 489	Honors in Research	1-3
M E 491	Mechanical Engineering Projects I	1-3
M E 492	Mechanical Engineering Projects II	1-3
M E/CIV ENGR/ E M A 508	Composite Materials	3
M E/I SY E 510	Facilities Planning	3
M E/I SY E 512	Inspection, Quality Control and Reliability	3
M E/I SY E 513	Analysis of Capital Investments	3
M E 514	Additive Manufacturing	3
M E/N E 520	Two-Phase Flow and Heat Transfer	3
M E/CBE 525	Macromolecular Hydrodynamics	3
M E/COMP SCI/ E C E 532	Matrix Methods in Machine Learning	3
M E 535	Computer-Aided Geometric Design	3
M E/COMP SCI/ E C E 539	Introduction to Artificial Neural Network and Fuzzy Systems	3
M E/E M A 540	Experimental Vibration and Dynamic System Analysis	3
M E 545	Fluid Power	3
M E 549	Product Design	3
M E/COMP SCI/ I SY E 558	Introduction to Computational Geometry	3
M E 561	Intermediate Thermodynamics	3
M E 563	Intermediate Fluid Dynamics	3
M E 564	Heat Transfer	3
M E/N E 565	Power Plant Technology	3
M E/E P 566	Cryogenics	3
M E/CBE 567	Solar Energy Technology	3
M E 569	Applied Combustion	3
M E/E M A 570	Experimental Mechanics	3
M E 572	Intermediate Gas Dynamics	3
M E 573	Computational Fluid Dynamics	3
M E/E C E 577	Automatic Controls Laboratory	4
M E 601	Special Topics in Mechanical Engineering	1-3
M E/I SY E 641	Design and Analysis of Manufacturing Systems	3
M E/I SY E 643	Performance Analysis of Manufacturing Systems	3
M E 699	Advanced Independent Study	1-3

M E 702	Graduate Cooperative Education Program	1-2
M E/E M A 706	Plates, Shells and Pressure Vessels	3
M E/E M A 708	Advanced Composite Materials	3
M E 714	Advanced Materials Processing and Manufacturing	3
M E 717	Advanced Polymer Processing	3
M E 718	Modeling and Simulation in Polymer Processing	3
M E/E M A 722	Introduction to Polymer Rheology	3
M E/E C E 739	Advanced Robotics	3
M E 740	Advanced Vibrations	3
M E 746	Dynamics of Controlled Systems	3
M E 747	Advanced Computer Control of Machines and Processes	3
M E 748	Optimum Design of Mechanical Elements and Systems	3
M E 751	Matrix Methods in the Design and Analysis of Mechanisms	3
M E 753	Friction, Lubrication and Wear	3
M E 758	Solid Modeling	3
M E/COMP SCI/ E C E/E M A/E P 759	High Performance Computing for Applications in Engineering	3
M E 761	Topics in Thermodynamics	3
M E 764	Advanced Heat Transfer I- Conduction	3
M E 765	Advanced Heat Transfer II- Convection	3
M E 769	Combustion Processes	3
M E 770	Advanced Experimental Instrumentation	3
M E 773	Boundary Layer Theory	3
M E 774	Chem Kinetics of Combust Systems	3
M E 775	Turbulent Heat and Momentum Transfer	3
M E/E P 777	Vacuum Technology	3
M E 790	Master's Research and Thesis	1-9
M E 890	PhD Research and Thesis	1-9
M E 903	Graduate Seminar	0
M E/CBE/CHEM/ E M A 925	Rheology Research Seminar	1
M E 964	Special Advanced Topics in Mechanical Engineering	1-3
M E 990	Dissertator Research and Thesis	1-9
M E 999	Advanced Independent Study	1-5

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the

degree program faculty. Policies set by the academic degree program can be found below.

NAMED OPTION-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://www.engr.wisc.edu/app/uploads/2017/01/ME-Grad-handbook-Update-August-2017-Final.pdf>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count graduate coursework from other institutions (up to 12 credits) toward the minimum graduate degree credit requirement and the minimum graduate coursework (50%) requirement. No credits from other institutions can be counted toward the minimum graduate residence credit requirement. Coursework earned five or more years prior to admission is not allowed to satisfy requirements.

UW–Madison Undergraduate

With advisor approval, up to 7 credits numbered 400 or above may be counted toward the minimum graduate degree credit requirement. These credits may be counted toward the minimum graduate coursework (50%) requirement if they are in courses numbered 700 or above. No credits may be counted toward the minimum graduate residence credit requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison University Special

With program approval, and payment of the difference in tuition, students are allowed to count up to 15 credits of coursework numbered 300 or above taken as a UW–Madison Special student toward the minimum graduate residence credit requirement and the minimum graduate degree credit requirement. These credits may be counted toward the minimum graduate coursework (50%) requirement if they are in courses numbered 700 or above. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

A semester GPA below 3.0 will result in the student being placed on academic probation. If a semester GPA of 3.0 is not attained during the subsequent semester of full time enrollment (or 12 credits of enrollment if enrolled part-time), this will be deemed unsatisfactory progress and the student may be dismissed from the program or allowed to continue for one additional semester based on advisor appeal to the Graduate School.

ADVISOR / COMMITTEE

All students are required to obtain a mechanical engineering faculty advisor who assists them in planning a course sequence that meets degree requirements, supervises their independent study project, and discusses career objectives.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Students enrolled in this program are not permitted to accept teaching assistantships, project assistantships, research assistantships or other appointments that would result in a tuition waiver. Students in this program cannot enroll in other graduate programs nor take courses outside the prescribed curriculum.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PEOPLE

Professors Duffie, Lorenz; Associate Professor Zinn

MECHANICAL ENGINEERING: MODELING AND SIMULATION IN MECHANICAL ENGINEERING, M.S.

This is a named option within the Mechanical Engineering M.S. (p. 1016)

The Department of Mechanical Engineering M.S. named option: Modeling and Simulation in Mechanical Engineering is an accelerated on campus degree program (completed in 12 months) with a stated objective of endowing the student with: computational engineering literacy and a strong modeling and simulation skillset. This degree prepares individuals who are interested in mastering the use of computers for the end goal of solving challenging engineering problems via simulation. This is a coursework only program that in one year enables the students to take

30 credits in a combination of foundation, core, and elective courses. The backbone of the program is a fall–spring sequence of two “computers in Engineering” foundation classes: M E 903 Graduate Seminar and M E/COMP SCI/E C E/E M A/E P 759 High Performance Computing for Applications in Engineering. Beyond these two *foundation* classes, students choose four more *core* courses from a carefully selected pool of Mechanical Engineering modeling courses anchored in application areas such as thermodynamics, fluid dynamics, heat transfer, solid mechanics, biomechanics, and manufacturing. In addition to core and foundation classes, students select four more elective classes that fit their educational priorities to complete the 30-credit requirement of the 12-month program.

For more information on the Modeling and Simulation in Mechanical Engineering named option see the program website (<https://www.engr.wisc.edu/department/mechanical-engineering/academics/masters-degree-mechanical-engineering-2-2>).

ADMISSIONS

Students with a strong background in mechanical engineering or a related field with interest in furthering their education in mechanical engineering are encouraged to apply for admission to the department. Applicants accepted into the program generally have an undergraduate grade point average well above the graduate school minimum of 3.0 on a 4.0 scale. All applicants are required to take the Graduate Record Exam (GRE). Applications are evaluated on the basis of previous academic record, GRE scores, letters of recommendation, and a personal statement. For more information on admission requirements see the program's website (<https://www.engr.wisc.edu/department/mechanical-engineering/academics/masters-degree-mechanical-engineering-2-2>).

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Students in this program are NOT be eligible for teaching assistant, research assistant, or project ssistant positions as this is an accelerated coursework ONLY degree.

FEDERAL LOANS

Students who are U.S. citizens or permanent residents are eligible to receive some level of funding through the federal direct loan program. These loans are available to qualified graduate students who are taking at least 4 credits during the fall and spring semesters, and 2 credits during

summer. Private loans are also available. Learn more about financial aid at financialaid.wisc.edu (<https://financialaid.wisc.edu>).

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	Yes

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement	30 credits
Minimum Residence Credit Requirement	18 credits
Minimum Graduate Coursework Requirement	Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (https://registrar.wisc.edu/course-guide/).
Overall Graduate GPA Requirement	3.00 GPA required.

Other Grade Requirements Students must earn a C or above in all formal coursework. Students may not have more than two incompletes on their record at any one time.

Assessments and Examinations None.

Language Requirements No language requirements.

REQUIRED COURSES

Code	Title	Credits
M E 903	Graduate Seminar ¹	0
M E/COMP SCI/ E C E/ E M A/E P 759	High Performance Computing for Applications in Engineering	3

A minimum of 4 courses (12 credits total) must be taken from the courses listed:

M E 440	Intermediate Vibrations
M E 451	Kinematics and Dynamics of Machine Systems
M E 460	Applied Thermal / Structural Finite Element Analysis
M E/COMP SCI/ I SY E 558	Introduction to Computational Geometry
M E 564	Heat Transfer
M E 573	Computational Fluid Dynamics
M E 601	Special Topics in Mechanical Engineering (Medical Image Based Modeling)
M E 601	Special Topics in Mechanical Engineering (Digital Design and Fabrication)
M E 601	Special Topics in Mechanical Engineering (Applied & Computational Math w/Engineering Apps)
M E/B M E 603	Topics in Bio-Medical Engineering (Finite Element Method for Biomechanics)
M E/E C E 739	Advanced Robotics
M E 748	Optimum Design of Mechanical Elements and Systems
M E 751	Matrix Methods in the Design and Analysis of Mechanisms
M E 764	Advanced Heat Transfer I- Conduction
M E 964	Special Advanced Topics in Mechanical Engineering

¹ Two semesters of M E 903 Graduate Seminar are required.

Courses Numbered 400 and above in ME which count toward course, independent study, research, credit requirements:

Code	Title	Credits
M E/B M E 415	Biomechanics of Human Movement	3
M E 417	Transport Phenomena in Polymer Processing	3
M E 418	Engineering Design with Polymers	3

M E 419	Fundamentals of Injection Molding	3	M E 545	Fluid Power	3
M E 420	Introduction to Polymer Composites Processing	3	M E 549	Product Design	3
M E/STAT 424	Statistical Experimental Design	3	M E/COMP SCI/ I S Y E 558	Introduction to Computational Geometry	3
M E/CBE/CHEM/ E M A 425	Undergraduate Rheology Seminar	1	M E 561	Intermediate Thermodynamics	3
M E 429	Metal Cutting	3	M E 563	Intermediate Fluid Dynamics	3
M E/M S & E 435	Joining of Materials: Structural, Electronic, Bio and Nano Materials	3	M E 564	Heat Transfer	3
M E 437	Advanced Materials Selection	3	M E/N E 565	Power Plant Technology	3
M E/E C E 439	Introduction to Robotics	3	M E/E P 566	Cryogenics	3
M E 440	Intermediate Vibrations	3	M E/CBE 567	Solar Energy Technology	3
M E/BSE/ FOOD SCI 441	Rheology of Foods and Biomaterials	3	M E 569	Applied Combustion	3
M E 444	Design Problems in Elasticity	3	M E/E M A 570	Experimental Mechanics	3
M E 445	Mechatronics in Control & Product Realization	3	M E 572	Intermediate Gas Dynamics	3
M E 446	Automatic Controls	3	M E 573	Computational Fluid Dynamics	3
M E 447	Computer Control of Machines and Processes	3	M E/E C E 577	Automatic Controls Laboratory	4
M E 448	Mechanical Systems Analysis	3	M E 601	Special Topics in Mechanical Engineering	1-3
M E 449	Redesign and Prototype Fabrication	3	M E/I S Y E 641	Design and Analysis of Manufacturing Systems	3
M E 450	Design and Dynamics of Vehicles	3	M E/I S Y E 643	Performance Analysis of Manufacturing Systems	3
M E 451	Kinematics and Dynamics of Machine Systems	3	M E 699	Advanced Independent Study	1-3
M E 460	Applied Thermal / Structural Finite Element Analysis	3	M E 702	Graduate Cooperative Education Program	1-2
M E 461	Thermal Systems Modeling	3	M E/E M A 706	Plates, Shells and Pressure Vessels	3
M E/M S & E 462	Welding Metallurgy	3	M E/E M A 708	Advanced Composite Materials	3
M E 466	Air Pollution Effects, Measurements and Control	3	M E 714	Advanced Materials Processing and Manufacturing	3
M E 469	Internal Combustion Engines	3	M E 717	Advanced Polymer Processing	3
M E/BSE 475	Engineering Principles of Agricultural Machinery	3	M E 718	Modeling and Simulation in Polymer Processing	3
M E/BSE 476	Engineering Principles of Off-Road Vehicles	3	M E/E M A 722	Introduction to Polymer Rheology	3
M E 489	Honors in Research	1-3	M E/E C E 739	Advanced Robotics	3
M E 491	Mechanical Engineering Projects I	1-3	M E 740	Advanced Vibrations	3
M E 492	Mechanical Engineering Projects II	1-3	M E 746	Dynamics of Controlled Systems	3
M E/CIV ENGR/ E M A 508	Composite Materials	3	M E 747	Advanced Computer Control of Machines and Processes	3
M E/I S Y E 510	Facilities Planning	3	M E 748	Optimum Design of Mechanical Elements and Systems	3
M E/I S Y E 512	Inspection, Quality Control and Reliability	3	M E 751	Matrix Methods in the Design and Analysis of Mechanisms	3
M E/I S Y E 513	Analysis of Capital Investments	3	M E 753	Friction, Lubrication and Wear	3
M E 514	Additive Manufacturing	3	M E 758	Solid Modeling	3
M E/N E 520	Two-Phase Flow and Heat Transfer	3	M E/COMP SCI/ E C E/E M A/E P 759	High Performance Computing for Applications in Engineering	3
M E/CBE 525	Macromolecular Hydrodynamics	3	M E 761	Topics in Thermodynamics	3
M E/COMP SCI/ E C E 532	Matrix Methods in Machine Learning	3	M E 764	Advanced Heat Transfer I- Conduction	3
M E 535	Computer-Aided Geometric Design	3	M E 765	Advanced Heat Transfer II- Convection	3
M E/COMP SCI/ E C E 539	Introduction to Artificial Neural Network and Fuzzy Systems	3	M E 769	Combustion Processes	3
M E/E M A 540	Experimental Vibration and Dynamic System Analysis	3	M E 770	Advanced Experimental Instrumentation	3
			M E 773	Boundary Layer Theory	3

M E 774	Chem Kinetics of Combust Systems	3
M E 775	Turbulent Heat and Momentum Transfer	3
M E/E P 777	Vacuum Technology	3
M E 790	Master's Research and Thesis	1-9
M E 890	PhD Research and Thesis	1-9
M E 903	Graduate Seminar	0
M E/CBE/CHEM/ E M A 925	Rheology Research Seminar	1
M E 964	Special Advanced Topics in Mechanical Engineering	1-3
M E 990	Dissertator Research and Thesis	1-9
M E 999	Advanced Independent Study	1-5

requirement. These credits may be counted toward the minimum graduate coursework (50%) requirement if they are in courses numbered 700 or above. Coursework earned five or more years prior to admission is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

A semester GPA below 3.0 will result in the student being placed on academic probation. If a semester GPA of 3.0 is not attained during the subsequent semester of full time enrollment (or 12 credits of enrollment if enrolled part-time), this will be deemed unsatisfactory progress and the student may be dismissed from the program or allowed to continue for one additional semester based on advisor appeal to the Graduate School.

ADVISOR / COMMITTEE

All students are required to obtain a mechanical engineering faculty advisor who assists them in planning a course sequence that meets degrees requirements and who will discuss career objectives with the students.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Students enrolled in this program are not permitted to accept teaching assistantships, project assistantships, research assistantships or other appointments that would result in a tuition waiver. Students in this program cannot enroll in other graduate programs nor take courses outside the prescribed curriculum.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

NAMED OPTION-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://www.engr.wisc.edu/app/uploads/2017/01/ME-Grad-handbook-Update-August-2017-Final.pdf>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count graduate coursework from other institutions (up to 12 credits) toward the minimum graduate degree credit requirement and the minimum graduate coursework (50%) requirement. No credits from other institutions can be counted toward the minimum graduate residence credit requirement. Coursework earned five or more years prior to admission is not allowed to satisfy requirements.

UW–Madison Undergraduate

With advisor approval, up to 7 credits numbered 400 or above may be counted toward the minimum graduate degree credit requirement. These credits may be counted toward the minimum graduate coursework (50%) requirement if they are in courses numbered 700 or above. No credits may be counted toward the minimum graduate residence credit requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison University Special

With program approval, and payment of the difference in tuition, students are allowed to count up to 15 credits of coursework numbered 400 or above taken as a UW–Madison Special student toward the minimum graduate residence credit requirement and the minimum graduate degree credit

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PEOPLE

Faculty: Professors Ghandhi (chair), Lorenz, Nellis, Osswald, Pfothenauer, Rowlands, Rutland, Sanders, Shapiro, Thelen, Turng; **Associate Professors** Krupenkin, Negrut, Pfeifferkorn, Ploeg, Qian, Rothamer, Suresh, Trujillo, Zinn; Assistant Professors Adamczyk, Eriten, Henak, Kokjohn, Miller, Min, Roldan-Alzate, Rudolph; **Faculty affiliates** Allen, Bonazza, Holloway, Luzzio, Reindl, Scarlat, Schauer

MECHANICAL ENGINEERING, PH.D.

The doctoral program in the Department of Mechanical Engineering prepares students to perform independent research in areas of faculty expertise within the department. The Ph.D. program in Mechanical Engineering is designed to train outstanding students for advanced work in industry, national labs, and academia through a combination of coursework and hands on research.

Ph.D. students are mentored by faculty to become world-class researchers. The Department of Mechanical Engineering has a long history of excellence in graduate education. The department is consistently ranked in the top 20 in the United States for graduate programs in mechanical engineering. The department offers research opportunities in a large number of established and emerging research specializations. Broad research themes within the department include: biomechanics, computational engineering, energy, manufacturing, and mechanics and controls. Excellent research facilities are available for specialized research within these broad areas for studies in: biomechanics, combustion, computational design, controls, cryogenics, dynamics and vibrations, fluid dynamics, fluid power, geometric modeling and prototyping, heat and mass transfer, internal combustion engines, laser diagnostics, manufacturing processes, mechanics, mechatronics, polymer and composites processing, powertrain control, robotics, solar energy, and more.

For a list of mechanical engineering faculty along with faculty research interests, please visit our faculty directory (<https://directory.engr.wisc.edu/display.php/faculty?page=me&search=faculty>). For more information on research areas see our page on research in Mechanical Engineering (<https://www.engr.wisc.edu/department/mechanical-engineering/research-in-mechanical-engineering>).

ADMISSIONS

Students with a strong background in mechanical engineering or a related field with interest in furthering their education in mechanical engineering are encouraged to apply for admission to the department. Applicants accepted into the program generally have an undergraduate grade point average well above the graduate school minimum of 3.0 on a 4.0 scale. All applicants are required to take the Graduate Record Exam (GRE). Applications are evaluated on the basis of previous

academic record, GRE scores, letters of recommendation, and a personal statement. For more information on admission requirements see the department's PhD degree website (<https://www.engr.wisc.edu/department/mechanical-engineering/academics/phd-in-mechanical-engineering>).

APPLICATION DEADLINE: JANUARY 1

Applications are accepted for admission during the fall semester.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

There are three mechanisms for Graduate Student funding through the university for Mechanical Engineering Ph.D. students:

1. Fellowships
2. Graduate assistantships: project assistantships, teaching assistantships, and research assistantships
3. Traineeships

Funding is awarded based on the qualifications of the student, the number of applicants, the amount of available funding, and the number of continuing students receiving support. You can apply for funding for research assistantships by contacting individual faculty members directly. Please check our website (<http://directory.engr.wisc.edu/me/faculty>) to look for faculty (only those listed with titles of assistant professor, associate professor, or professor can serve as graduate student advisors). Search for faculty who have research interests that align closely with your own by viewing faculty directory entries, visiting the faculty's website (linked from the directory page), and reviewing publications by the faculty member. Once you have identified faculty with interests close to your own, you are encouraged to contact them by email to inquire regarding available research assistant positions. The admissions office does not know if a particular professor has research assistant positions available.

Students who apply to the department will be automatically considered for fellowship opportunities within the department. For information on applying for teaching assistant positions and for other information on funding please see the department website (<https://www.engr.wisc.edu/department/mechanical-engineering/academics/phd-in-mechanical-engineering>).

More information on graduate student funding is available from the Graduate School's Office of Fellowships and Funding Resources (<http://grad.wisc.edu/studentfunding/currentstudents>).

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 60 credits

Minimum Residence Credit Requirement 32 credits

Minimum Graduate Coursework Requirement Half of degree coursework (30 credits out of 60 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle>).

Overall Graduate GPA Requirement 3.25 GPA required.

Other Grade Requirements Students must earn a C or above in all formal coursework. Ph.D. candidates may not have any more than two Incompletes on their record at any one time.

Assessments and Examinations The Ph.D. candidate will need to pass a qualifying exam, preliminary exam, and a final defense in order to obtain a degree.

Language Requirements No language requirements.

Doctoral Minor/Breadth Requirements All doctoral students are required to complete a minor. Students pursuing an Option B (distributed) minor must take a minimum of 12 course credits. The coursework should form a coherent group of courses for which the graduate credit is allowed. The approval of the advisor and the graduate committee are required.

REQUIRED COURSES

Two semesters of M E 903 Graduate Seminar are required. These should be taken the first two semester the student is in residence. If an M.S. degree is received at UW–Madison, additional M E 903 M E 903 credits are not required.

A minimum of 42 formal course credits beyond the B.S. degree. This includes a minimum of five courses numbered 700 or higher (excluding M E 964 Special Advanced Topics in Mechanical Engineering courses unless specifically approved). Four of the five 700-level courses must be taken at UW–Madison. A minimum of two of the 700-level courses must be taken Mechanical Engineering at UW–Madison. Acceptable courses for the remainder of the required 42 formal course credits (this total includes the courses taken for the PhD minor requirement) are those numbered 400 and above.

Minimum of 18 thesis credits (M E 790 Master's Research and Thesis and Thesis, M E 890 PhD Research and Thesis, M E 990 Dissertator Research and Thesis) are required with an overall grade of S.

Courses Numbered 400 and above in M E which count toward course, independent study, research credit requirements:

Code	Title	Credits
M E/B M E 415	Biomechanics of Human Movement	3
M E 417	Transport Phenomena in Polymer Processing	3
M E 418	Engineering Design with Polymers	3
M E 419	Fundamentals of Injection Molding	3
M E 420	Introduction to Polymer Composites Processing	3
M E/STAT 424	Statistical Experimental Design	3
M E/CBE/CHEM/ E M A 425	Undergraduate Rheology Seminar	1
M E 429	Metal Cutting	3
M E/M S & E 435	Joining of Materials: Structural, Electronic, Bio and Nano Materials	3
M E 437	Advanced Materials Selection	3
M E/E C E 439	Introduction to Robotics	3
M E 440	Intermediate Vibrations	3
M E/BSE/ FOOD SCI 441	Rheology of Foods and Biomaterials	3
M E 444	Design Problems in Elasticity	3
M E 445	Mechatronics in Control & Product Realization	3

M E 446	Automatic Controls	3	M E 601	Special Topics in Mechanical Engineering	1-3
M E 447	Computer Control of Machines and Processes	3	M E/I SY E 641	Design and Analysis of Manufacturing Systems	3
M E 448	Mechanical Systems Analysis	3	M E/I SY E 643	Performance Analysis of Manufacturing Systems	3
M E 449	Redesign and Prototype Fabrication	3	M E 699	Advanced Independent Study	1-3
M E 450	Design and Dynamics of Vehicles	3	M E 702	Graduate Cooperative Education Program	1-2
M E 451	Kinematics and Dynamics of Machine Systems	3	M E/E M A 706	Plates, Shells and Pressure Vessels	3
M E 460	Applied Thermal / Structural Finite Element Analysis	3	M E/E M A 708	Advanced Composite Materials	3
M E 461	Thermal Systems Modeling	3	M E 714	Advanced Materials Processing and Manufacturing	3
M E/M S & E 462	Welding Metallurgy	3	M E 717	Advanced Polymer Processing	3
M E 466	Air Pollution Effects, Measurements and Control	3	M E 718	Modeling and Simulation in Polymer Processing	3
M E 469	Internal Combustion Engines	3	M E/E M A 722	Introduction to Polymer Rheology	3
M E/BSE 475	Engineering Principles of Agricultural Machinery	3	M E/E C E 739	Advanced Robotics	3
M E/BSE 476	Engineering Principles of Off-Road Vehicles	3	M E 740	Advanced Vibrations	3
M E 489	Honors in Research	1-3	M E 746	Dynamics of Controlled Systems	3
M E 491	Mechanical Engineering Projects I	1-3	M E 747	Advanced Computer Control of Machines and Processes	3
M E 492	Mechanical Engineering Projects II	1-3	M E 748	Optimum Design of Mechanical Elements and Systems	3
M E/CIV ENGR/ E M A 508	Composite Materials	3	M E 751	Matrix Methods in the Design and Analysis of Mechanisms	3
M E/I SY E 510	Facilities Planning	3	M E 753	Friction, Lubrication and Wear	3
M E/I SY E 512	Inspection, Quality Control and Reliability	3	M E 758	Solid Modeling	3
M E/I SY E 513	Analysis of Capital Investments	3	M E/COMP SCI/ E C E/E M A/E P 759	High Performance Computing for Applications in Engineering	3
M E 514	Additive Manufacturing	3	M E 761	Topics in Thermodynamics	3
M E/N E 520	Two-Phase Flow and Heat Transfer	3	M E 764	Advanced Heat Transfer I- Conduction	3
M E/CBE 525	Macromolecular Hydrodynamics	3	M E 765	Advanced Heat Transfer II- Convection	3
M E/COMP SCI/ E C E 532	Matrix Methods in Machine Learning	3	M E 769	Combustion Processes	3
M E 535	Computer-Aided Geometric Design	3	M E 770	Advanced Experimental Instrumentation	3
M E/COMP SCI/ E C E 539	Introduction to Artificial Neural Network and Fuzzy Systems	3	M E 773	Boundary Layer Theory	3
M E/E M A 540	Experimental Vibration and Dynamic System Analysis	3	M E 774	Chem Kinetics of Combust Systems	3
M E 545	Fluid Power	3	M E 775	Turbulent Heat and Momentum Transfer	3
M E 549	Product Design	3	M E/E P 777	Vacuum Technology	3
M E/COMP SCI/ I SY E 558	Introduction to Computational Geometry	3	M E 790	Master's Research and Thesis	1-9
M E 561	Intermediate Thermodynamics	3	M E 890	PhD Research and Thesis	1-9
M E 563	Intermediate Fluid Dynamics	3	M E 903	Graduate Seminar	0
M E 564	Heat Transfer	3	M E/CBE/CHEM/ E M A 925	Rheology Research Seminar	1
M E/N E 565	Power Plant Technology	3	M E 964	Special Advanced Topics in Mechanical Engineering	1-3
M E/E P 566	Cryogenics	3	M E 990	Dissertator Research and Thesis	1-9
M E/CBE 567	Solar Energy Technology	3	M E 999	Advanced Independent Study	1-5
M E 569	Applied Combustion	3			
M E/E M A 570	Experimental Mechanics	3			
M E 572	Intermediate Gas Dynamics	3			
M E 573	Computational Fluid Dynamics	3			
M E/E C E 577	Automatic Controls Laboratory	4			

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://www.engr.wisc.edu/app/uploads/2017/01/ME-Grad-handbook-Update-August-2017-Final.pdf>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count up to 24 credits of graduate coursework from other institutions toward the minimum graduate degree credit requirement and the minimum graduate coursework (50%) requirement. No credits from other institutions can be counted toward the minimum graduate residence credit requirement. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

Up to 7 credits numbered 400 or above can be counted toward the minimum graduate degree credit requirement. These credits may be counted toward the minimum graduate coursework (50%) requirement if they are from courses numbered 700 or above. No credits can be counted toward the minimum graduate residence credit requirement. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison University Special

With program approval, and payment of the difference in tuition, students are allowed to count up to 15 credits of coursework numbered 400 or above taken as a UW–Madison Special student toward the minimum graduate residence credit requirement and the minimum graduate degree credit requirement. These credits may be counted toward the minimum graduate coursework (50%) requirement if they are in courses numbered 700 or above. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

1. Good standing (progressing according to standards; any funding guarantee remains in place).

2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

A semester GPA below 3.25 will result in the student being placed on academic probation. If a semester GPA of 3.25 is not attained during the subsequent semester of full time enrollment (or 12 credits of enrollment if enrolled part-time), this will be deemed unsatisfactory progress and the student may be dismissed from the program or allowed to continue for one additional semester based on advisor appeal to the department.

ADVISOR / COMMITTEE

All students must have a mechanical engineering faculty advisor who assists them in planning a course sequence that meets degree requirements, who helps guide them and mentor them in their research, and who will discuss career objectives with the student. A qualifying exam committee must include the student's mechanical engineering faculty advisor and two other mechanical engineering faculty members. A preliminary committee must include the student's mechanical engineering faculty advisor and at least three other members who will also serve on the final oral defense committee. A final oral defense committee must include the student's mechanical engineering faculty advisor and at least four other members, three other graduate faculty or former graduate faculty up to one year after resignation or retirement, and one of the following: another graduate faculty, a retired faculty member with emeritus status, or a UW–Madison research scientist with principal investigator status who has been approved by the ME executive committee. At least one faculty member on the committee must be from outside of the ME department.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Ph.D. students must take the qualifying exam no later than the second time it is offered after completing 30 credits. Students entering the program with an MS degree must take the exam no later than the second time it is offered after entering the program.

Ph.D. students must complete their preliminary exam within five years of passing their qualifying exam.

The preliminary must be passed at least 9 months prior to the thesis defense.

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination to be admitted to candidacy a second time.

OTHER

n/a

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Demonstrate an extraordinary, deep understanding of mathematical, scientific, and engineering principles in the field.
2. Demonstrate an ability to formulate, analyze, and independently solve advanced engineering problems.
3. Apply the relevant scientific and technological advancements, techniques, and engineering tools to address these problems.
4. Recognize and apply principles of ethical and professional conduct.
5. Demonstrate an ability to synthesize knowledge from a subset of the biological, physical, and/or social sciences to help frame problems critical to the future of their discipline.
6. Demonstrate an ability to conduct original research and communicate it to their peers.

PEOPLE

Faculty: Professors Gandhi (chair), Lorenz, Nellis, Osswald, Pfothenauer, Rowlands, Rutland, Sanders, Shapiro, Thelen, Turng; **Associate Professors** Krupenkin, Negrut, Pfefferkorn, Ploeg, Qian, Rothamer, Suresh, Trujillo, Zinn; Assistant Professors Adamczyk, Eriten, Henak, Kokjohn, Miller, Min, Roldan-Alzate, Rudolph; **Faculty affiliates** Allen, Bonazza, Holloway, Luzzio, Reindl, Scarlat, Schauer

MEDICAL HISTORY AND BIOETHICS

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- History of Medicine, Doctoral Minor (p. 1035)

PEOPLE

Faculty: Professors Lederer (chair), Hausman, Hogle, Keller, Mitman, Ossorio; Associate Professors Houck, Kelleher, Streiffer; Assistant Professor Gomez

HISTORY OF MEDICINE, DOCTORAL MINOR

The Department of Medical History and Bioethics, which offers the doctoral minor in History of Medicine, offers graduate instruction in the

history of American, European and non-Western medicine and public health.

The department welcomes graduate students from a variety of backgrounds in the sciences and humanities and allows students flexibility in meeting their academic needs.

REQUIREMENTS

Students must take 9 credits from the Medical History and Bioethics (http://guide.wisc.edu/courses/med_hist) subject to complete the doctoral minor.

PEOPLE

Faculty: Professors Lederer (chair), Hausman, Hogle, Keller, Mitman, Ossorio; Associate Professors Houck, Kelleher, Streiffer; Assistant Professor Gomez

MEDICAL PHYSICS

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Medical Physics, Doctoral Minor (p. 1035)
- Medical Physics, M.S. (p. 1036)
- Medical Physics, Ph.D. (p. 1039)

PEOPLE

Faculty: Professors Jackson (chair), Alexander, Bayouth, Block, Campagnola, Chen, Christian, DeJesus, DeWerd, Fain, Grist, Hall, Henderson, Jeraj, Korosec, Meyerand, Pepler, Reeder, Thomadsen, Varghese, Wakai; Associate Professors Birn, Brace, Bednarz, Cai, Emborg, Ranallo, Vetter, Weichert, Wieben; Assistant Professors Culberson, Engle, Li, Nagle, Prabhakaran, Szczykutowicz, Smilowitz, Speidel; Emeritus Professors DeLuca, Holden, Mackie, Mistretta, Nickles, Paliwal, Zagzebski

MEDICAL PHYSICS, DOCTORAL MINOR

REQUIREMENTS

A candidate for a Ph.D. degree in a department other than Medical Physics who wishes to minor in Medical Physics is required to complete a minimum of 9 credits of courses. The Medical Physics Graduate Committee Chair, Professor Tomy Varghese, tvarghese@wisc.edu, should be consulted for detailed information.

PEOPLE

Faculty: Professors Jackson (chair), Alexander, Bayouth, Block, Campagnola, Chen, Christian, DeJesus, DeWerd, Fain, Grist, Hall,

Henderson, Jeraj, Korosec, Meyerand, Peppler, Reeder, Thomadsen, Varghese, Wakai; Associate Professors Birn, Brace, Bednarz, Cai, Emborg, Ranallo, Vetter, Weichert, Wieben; Assistant Professors Culberson, Engle, Li, Nagle, Prabhakaran, Szczykutowicz, Smilowitz, Speidel; Emeritus Professors DeLuca, Holden, Mackie, Mistretta, Nickles, Paliwal, Zagzebski

MEDICAL PHYSICS, M.S.

One of the basic science departments of the UW–Madison School of Medicine and Public Health, the Department of Medical Physics offers comprehensive training in diagnostic and therapeutic medical physics and in health physics. Achievement of the M.S. degree in this department reflects strong scholarship in one of the top medical physics programs in North America. Graduates are prepared for teaching and/or research positions in universities, national laboratories, or in the medical and nuclear technology industries. Graduates are also prepared for admission into medical physics residency programs to become board eligible for clinical medical physics positions.

Medical physicists may participate professionally in the treatment of patients, in advanced medical imaging and diagnostic procedures, or in related areas of research and teaching. Health physicists may operate radiation protection programs at nuclear industrial facilities, hospitals, or laboratories, or may perform research on methods of measuring ionizing radiations (i.e., dosimetry).

A unique quality of the medical physics program is the broad range of expertise and research interests of the faculty. Students receive training in diagnostic x-ray physics, x-ray computerized tomography (CT), magnetic resonance imaging (MRI) and spectroscopy, nuclear medicine and positron emission tomography (PET) imaging, biomagnetism, medical ultrasound, elastography, radiation dosimetry, radiation treatment planning, and radiobiology.

The department also houses the Medical Radiation Research Center and the Accredited Dosimetry Calibration Laboratory, one of four in the U.S. accredited by the American Association of Physicists in Medicine. In addition, the department provides clinical support services to the radiology and human oncology departments. It also operates a PET radiotracer production facility (with two cyclotrons available), a medical image analysis laboratory, and a small bore MRI scanner and photoacoustic ultrasound system in the Small Animal Imaging Facility. Each of these facilities provides unique training and support opportunities for graduate students. Access to state-of-the-art x-ray angiography, CT, MRI, and PET/CT and PET/MR systems is readily available.

ADMISSIONS

About 100–125 applicants per year apply to the medical physics program. Each fall, the program admits 15–20 students. This results in an average enrollment of approximately 100 students each semester. Less than one-fifth of the students pursue the M.S. degree as a terminal degree, and the remainder continue on to the Ph.D.

A bachelor's degree in physics is considered the best preparation for graduate study in medical physics, but majors such as nuclear engineering, biomedical engineering, electrical engineering, or chemistry may also be acceptable. The student's math background should include calculus, differential equations, linear algebra, and Fourier analysis, such as might be learned in modern optics or undergraduate quantum theory.

Some facility in computer programming and electronic instrumentation is desirable. One year of chemistry, a year of biology, and an introductory course in physiology are also advantageous.

Beginning graduate students should start their studies in the fall semester, as the course sequence is based on that assumption. Students applying for admission should submit an online application and all supporting documentation by December 1 (for domestic applications; international applications are due November 15), to ensure consideration for admission and financial support to begin the following fall.

Admission to the graduate program is competitive. Applications are judged on the basis of a student's previous academic record, Graduate Record Exam (GRE) scores, research experience, letters of recommendation, and personal statement of reasons for interest in graduate study in medical physics.

The application process is in two parts:

1. Complete the online application to the Graduate School and pay application fee.
2. Provide electronic copies of resume (include awards, fellowships, and scholarships received, publications, volunteer activities, and research experience); the "applicant data sheet"; personal statement of reasons for interest in graduate study in medical physics; and mail two official sets of paper transcripts to the department. Note: Recommendation letters are submitted electronically through the online application. To report Graduate Record Exam (GRE) scores, use Institution Code 1846 for the University of Wisconsin–Madison.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

The department typically supports 85–95 percent of all students enrolled in the medical physics graduate program through department or university fellowships, research or teaching assistantships, or NIH NRSA training grant appointments. All awards include a comprehensive health insurance program and remission of tuition. The student is responsible for segregated fees. While most of the students in the program are funded, less than one-fifth of the students in the Medical Physics Graduate Program are terminal M.S. degree students, and financial support for terminal M.S. degree students is not guaranteed.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 32 credits

Minimum Residence Credit Requirement 29 credits

Minimum Graduate Coursework Requirement Half of degree coursework (16 credits out of 32 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Candidates are expected to take the qualifying examination by the end of the second year of study. Contact the department for more information.

Language Requirements No language requirements.

REQUIRED COURSES

Code	Title	Credits
Required Courses		
MED PHYS/ B M E/H ONCOL/ PHYSICS 501	Radiological Physics and Dosimetry	3
MED PHYS/ PHYSICS 563	Radionuclides in Medicine and Biology	2-3
MED PHYS/ B M E 566	Physics of Radiotherapy	4
MED PHYS/ B M E 567	The Physics of Diagnostic Radiology	4
MED PHYS/N E 569	Health Physics and Biological Effects	3-4
MED PHYS/ B M E 573	Medical Image Science: Mathematical and Conceptual Foundations	3
MED PHYS/ B M E 578	Non-Ionizing Diagnostic Imaging	3
MED PHYS 701	Ethics and the responsible conduct of research and practice of Medical Physics	1
MED PHYS 900	Journal Club and Seminar	4
Course in anatomy/physiology chosen in consultation with advisor.		

Health Physics Track ¹

In addition to the above requirements, students completing the Health Physics emphasis must take the following courses:

Code	Title	Credits
Required Courses for Health Physics Emphasis		
N E 427	Nuclear Instrumentation Laboratory	2
N E 571	Economic and Environmental Aspects of Nuclear Energy	3

One (1) credit of an independent reading course on Health Physics Rules and Regulations.

Electives

6 elective credits are required, and Anatomy for 3 credits or Physiology for 5 credits (or alternative) is required as one of the electives.

An exemption from the Core Curriculum requirement requires the approval of the chair of the graduate committee. If the entirety of the Core Curriculum is not taken, the student will not satisfy the CAMPEP Core Curriculum requirement.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

3. Have taken the qualifier examination by the end of the 2nd semester of study. If a basic (low level) pass is not obtained on the first attempt, the second (and last) attempt to pass the qualifier examination must be made no later than the 4th semester.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://www.medphysics.wisc.edu/graduate/documents/handbook.pdf>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 3 credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to the master's degree program is not allowed to satisfy requirements.

UW–Madison Undergraduate

With program approval, 7 credits in medical physics courses from a UW–Madison undergraduate degree above the undergraduate graduation requirements are allowed to count toward the degree.

UW–Madison University Special

With program approval, students are allowed to count no more than 15 credits of coursework numbered 500 or above taken as a UW–Madison Special student. Coursework earned five or more years prior to admission to the master's degree program is not allowed to satisfy requirements.

PROBATION

For a graduate student in the Medical Physics Department who is a research assistant, fellow or trainee, to be making satisfactory progress, he/she must:

1. Obtain at least a 3.0 GPA in the most recent semester. Grades in all research courses and courses with grades of P, F, S or U are excluded from the average. A student who fails to make satisfactory progress will be dropped from the department. In exceptional cases, the chairperson may grant permission to continue for a specified probationary period.
2. Maintain a minimum cumulative GPA of 3.0 for all courses taken while in the Medical Physics program and for all Department of Medical Physics courses. All research courses and all courses with grades of P, F, S or U are excluded from the average.

Any student, who fails to meet the requirements of 1–3 above, will be placed on probation. Failure in the first semester of probation to obtain a 3.0 average for the semester and a cumulative GPA of at least 3.0 will result in termination unless the student's advisor requests and the department and the Graduate School approves, continued enrollment. The particular courses which count toward the GPA in any probation semester must be approved in writing by the student's advisor and the Medical Physics Graduate Committee Chairman in order for the work to count toward returning the student to good standing.

ADVISOR / COMMITTEE

Candidates must acquire a major professor/advisor by the beginning of the second semester of study.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

The qualifying examination should be taken by the end of the second year. All M.S. degree course requirements should be completed by the end of the second year of study.

OTHER

Most students are funded with Research Assistantships through the research programs of their advisors. A limited number of traineeships are available to advanced students in the UW–Radiological Sciences Training Program for career training in cancer research. Other fellowships are also available to qualified students (e.g. AAPM, Cardiovascular and Neurological Sciences Training Programs, Advanced Opportunity Fellowship Program, etc.).

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Articulates, critiques, and/or elaborates theories, research methods, and approaches to inquiry or schools of practice in the field of medical physics.
2. Identifies sources and assembles evidence pertaining to questions or challenges in the field of medical physics.
3. Selects and/or utilizes the most appropriate methodologies and practices.
4. Evaluates and/or synthesizes information pertaining to questions or challenges in the field of medical physics.

5. Communicates clearly in both oral and written formats.
6. Fosters ethical and professional conduct.

PEOPLE

Faculty: Professors Jackson (chair), Alexander, Bayouth, Block, Campagnola, Chen, Christian, DeJesus, DeWerd, Fain, Grist, Hall, Henderson, Jeraj, Korosec, Meyerand, Pepler, Reeder, Thomadsen, Varghese, Wakai; Associate Professors Birn, Brace, Bednarz, Cai, Emborg, Ranallo, Vetter, Weichert, Wieben; Assistant Professors Culberson, Engle, Li, Nagle, Prabhakaran, Szczykutowicz, Smilowitz, Speidel; Emeritus Professors DeLuca, Holden, Mackie, Mistretta, Nickles, Paliwal, Zagzebski

ACCREDITATION

Accreditation

Commission on Accreditation of Medical Physics Education Programs (<http://www.campep.org>)

Accreditation status: Accredited through December 31, 2021. Next accreditation review: Spring 2021.

MEDICAL PHYSICS, PH.D.

One of the basic science departments of the UW–Madison School of Medicine and Public Health, the Department of Medical Physics offers comprehensive training in diagnostic and therapeutic medical physics and in health physics. Achievement of the Ph.D. degree in this department reflects strong scholarship and research skills in one of the top medical physics programs in North America. Graduates are prepared for teaching and/or research positions in universities, national laboratories, or in the medical and nuclear technology industries. Graduates are also prepared for admission into medical physics residency programs to become board eligible for clinical medical physics positions.

Medical physicists may participate professionally in the treatment of patients, in advanced medical imaging and diagnostic procedures, or in related areas of research and teaching. Health physicists may operate radiation protection programs at nuclear industrial facilities, hospitals, or laboratories, or may perform research on methods of measuring ionizing radiations (i.e., dosimetry).

A unique quality of the medical physics program is the broad range of expertise and research interests of the faculty. Students receive training in diagnostic x-ray physics, x-ray computerized tomography (CT), magnetic resonance imaging (MRI) and spectroscopy, nuclear medicine and positron emission tomography (PET) imaging, biomagnetism, medical ultrasound, elastography, radiation dosimetry, radiation treatment planning, and radiobiology.

The department also houses the Medical Radiation Research Center and the Accredited Dosimetry Calibration Laboratory, one of four in the U.S. accredited by the American Association of Physicists in Medicine. In addition, the department provides clinical support services to the radiology and human oncology departments. It also operates a PET radiotracer production facility (with two cyclotrons available), a medical image analysis laboratory, and a small bore MRI scanner and photoacoustic ultrasound system in the Small Animal Imaging

Facility. Each of these facilities provides unique training and support opportunities for graduate students. Access to state-of-the-art x-ray angiography, CT, MRI, and PET/CT and PET/MR systems is readily available.

The Ph.D. degree is primarily a research degree that extends the student's depth of knowledge in one of the specialty areas. Faculty positions at universities, research positions, and an increasing number of clinical physics positions require the Ph.D. degree. Medical physics faculty maintain close collaborative ties with faculty in other departments, including human oncology, radiology, cardiology, medicine, psychiatry, pharmacology, and biomedical engineering, broadening the scope of research opportunities open to medical physics students and providing access to sophisticated clinical facilities.

ADMISSIONS

About 100–125 applicants per year apply to the medical physics program. Each fall, the program admits 15–20 students. This results in an average enrollment of approximately 100 students each semester. Less than one-fifth of the students pursue the M.S. degree as a terminal degree, and the remainder continue on to the Ph.D.

A bachelor's degree in physics is considered the best preparation for graduate study in medical physics, but majors such as nuclear engineering, biomedical engineering, electrical engineering, or chemistry may also be acceptable. The student's math background should include calculus, differential equations, linear algebra, and Fourier analysis, such as might be learned in modern optics or undergraduate quantum theory. Some facility in computer programming and electronic instrumentation is desirable. One year of chemistry, a year of biology, and an introductory course in physiology are also advantageous.

Beginning graduate students should start their studies in the fall semester, as the course sequence is based on that assumption. Students applying for admission should submit an online application and all supporting documentation by December 1 (for domestic applications; international applications are due November 15), to ensure consideration for admission and financial support to begin the following fall.

Admission to the graduate program is competitive. Applications are judged on the basis of a student's previous academic record, Graduate Record Exam (GRE) scores, research experience, letters of recommendation, and personal statement of reasons for interest in graduate study in medical physics.

The application process is in two parts:

1. Complete the online application to the Graduate School and pay application fee.
2. Provide electronic copies of resume (include awards, fellowships, and scholarships received, publications, volunteer activities, and research experience); the "applicant data sheet"; personal statement of reasons for interest in graduate study in medical physics; and mail two official sets of paper transcripts to the department. Note: Recommendation letters are submitted electronically through the online application. To report Graduate Record Exam (GRE) scores, use Institution Code 1846 for the University of Wisconsin–Madison.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements

of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

The department typically supports 85–95 percent of students enrolled in the medical physics graduate program through department or university fellowships, research or teaching assistantships, or NIH NRSA training grant appointments. All awards include a comprehensive health insurance program and remission of tuition. The student is responsible for segregated fees.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement	54 credits
Minimum Residence Credit Requirement	42 credits
Minimum Graduate Coursework Requirement	Seventy-five percent of degree coursework (40 credits out of 54 total credits) must be in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle).
Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.
Assessments and Examinations	Candidates are expected to take the Oral Ph.D. Qualifying Examination by the end of the second year of study, and to take the Ph.D. Preliminary Examination by the end of the third year of study. Permission of the Graduate Committee is required if the Ph.D. Preliminary Examination must be taken after the end of the third year. Defense of a dissertation is required within five years of successful completion of the Ph.D. Preliminary Examination.
Language Requirements	No language requirements.
Doctoral Minor/Breadth Requirements	The 54 credits needed to satisfy the Ph.D. degree requirement must include 9 credits of graduate-level courses (greater than and including 300 level) constituting a minor subject area, consisting of a coherent body of work complementary to the candidate's research. The objective of the minor course requirement is to add a defined breadth to the candidate's education. Please see the Medical Physics Graduate Student Handbook (https://www.medphysics.wisc.edu/graduate/) for more information regarding minor options.

REQUIRED COURSES

Code	Title	Credits
Required Courses		
MED PHYS/ B M E/H ONCOL/ PHYSICS 501	Radiological Physics and Dosimetry	3
MED PHYS/ PHYSICS 563	Radionuclides in Medicine and Biology	2-3
MED PHYS/ B M E 566	Physics of Radiotherapy	4
MED PHYS/ B M E 567	The Physics of Diagnostic Radiology	4
MED PHYS/N E 569	Health Physics and Biological Effects	3-4

MED PHYS/ B M E 573	Medical Image Science: Mathematical and Conceptual Foundations	3
MED PHYS/ B M E 578	Non-Ionizing Diagnostic Imaging	3
MED PHYS 701	Ethics and the responsible conduct of research and practice of Medical Physics	1
MED PHYS 900	Journal Club and Seminar	4

Course in anatomy/physiology chosen in consultation with advisor.

Health Physics Track ¹

In addition to the above requirements, students completing the Health Physics emphasis must take the following courses:

Code	Title	Credits
Required Courses for Health Physics Emphasis		
N E 427	Nuclear Instrumentation Laboratory	2
N E 571	Economic and Environmental Aspects of Nuclear Energy	3

One (1) credit of an independent reading course on Health Physics Rules and Regulations.

Electives

6 elective credits are required, and Anatomy for 3 credits or Physiology for 5 credits (or alternative) is required as one of the electives.

An exemption from the Core Curriculum requirement requires the approval of the chair of the graduate committee. If the entirety of the Core Curriculum is not taken, the student will not satisfy the CAMPEP Core Curriculum requirement.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://www.medphysics.wisc.edu/graduate/documents/handbook.pdf>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 12 credits of medical physics graduate coursework from

other institutions. coursework earned five years or more prior to admission to the doctoral degree program is not allowed to satisfy requirements.

UW-Madison Undergraduate

With program approval, 7 credits in medical physics courses from a UW-Madison undergraduate degree above the undergraduate graduation requirements are allowed to count toward the degree.

UW-Madison University Special

With program approval, students are allowed to count no more than 15 credits of coursework numbered 500 or above taken as a UW-Madison Special student. Coursework earned five years or more prior to admission to the doctoral degree program is not allowed to satisfy requirements.

PROBATION

For a graduate student in the Medical Physics Department who is a research assistant, fellow or trainee, to be making satisfactory progress, he/she must:

1. Obtain at least a 3.0 GPA in the most recent semester. Grades in all research courses and courses with grades of P, F, S or U are excluded from the average. A student who fails to make satisfactory progress will be dropped from the department. In exceptional cases, the chairperson may grant permission to continue for a specified probationary period.
2. Maintain a minimum cumulative GPA of 3.0 for all courses taken while in the Medical Physics program and for all Department of Medical Physics courses. All research courses and all courses with grades of P, F, S or U are excluded from the average.
3. Have taken the qualifier examination by the end of the 2nd semester of study. If a basic (low level) pass is not obtained on the first attempt, the second (and last) attempt to pass the qualifier examination must be made no later than the 4th semester.

Any student, who fails to meet the requirements of 1-3 above, will be placed on probation. Failure in the first semester of probation to obtain a 3.0 average for the semester and a cumulative GPA of at least 3.0 will result in termination unless the student's advisor requests and the department and the Graduate School approves, continued enrollment. The particular courses which count toward the GPA in any probation semester must be approved in writing by the student's advisor and the Medical Physics Graduate Committee Chairman in order for the work to count toward returning the student to good standing.

ADVISOR / COMMITTEE

Candidates must acquire a major professor/advisor by the beginning of the second semester of study.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

The oral Ph.D. qualifying examination should be taken by the end of the second year, and the Ph.D. preliminary examination should be taken by the end of the third year of study. Permission of the

graduate committee is required if the Ph.D. preliminary examination must be taken after the end of the third year. Defense of a dissertation is required within five years of successful completion of the Ph.D. preliminary examination.

OTHER

Most students are funded with research assistantships through the research programs of their advisors. A limited number of traineeships are available to advanced students in the UW Radiological Sciences Training Program for career training in cancer research. Other fellowships are also available to qualified students (e.g., AAPM, Cardiovascular and Neurological Sciences Training Programs, Advanced Opportunity Fellowship Program).

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Articulates research problems, potentials, and limits with respect to theory, knowledge, or practice within the field of medical physics.
2. Formulates ideas, concepts, designs, and/or techniques beyond the current boundaries of knowledge within the field of medical physics.
3. Creates research, scholarship, or performance that makes a substantive scientific contribution.
4. Demonstrates breadth within their learning experiences.
5. Advances contributions of the field of medical physics to society.
6. Communicates complex ideas in a clear and understandable manner in both oral and written formats.
7. Fosters ethical and professional conduct.

PEOPLE

Faculty: Professors Jackson (chair), Alexander, Bayouth, Block, Campagnola, Chen, Christian, DeJesus, DeWerd, Fain, Grist, Hall, Henderson, Jeraj, Korosec, Meyerand, Peppler, Reeder, Thomadsen, Varghese, Wakai; Associate Professors Birn, Brace, Bednarz, Cai, Emborg, Ranallo, Vetter, Weichert, Wieben; Assistant Professors Culbertson, Engle, Li, Nagle, Prabhakaran, Szczykutowicz, Smilowitz, Speidel; Emeritus Professors DeLuca, Holden, Mackie, Mistretta, Nickles, Paliwal, Zagzebski

ACCREDITATION

Accreditation

Commission on Accreditation of Medical Physics Education Programs (<http://www.campep.org>)

Accreditation status: Accredited through December 31, 2021. Next accreditation review: Spring 2021.

MEDICINE AND PUBLIC HEALTH—SCHOOL-WIDE

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE PROFESSIONAL/CERTIFICATES

- Endocrinology-Reproductive Physiology, Doctoral Minor (p. 1042)
- Endocrinology-Reproductive Physiology, M.S. (p. 1044)
- Endocrinology-Reproductive Physiology, Ph.D. (p. 1046)
- Molecular and Cellular Pharmacology, Doctoral Minor (p. 1050)
- Molecular and Cellular Pharmacology, M.S. (p. 1050)
- Molecular and Cellular Pharmacology, Ph.D. (p. 1053)
- Molecular and Environmental Toxicology, Doctoral Minor (p. 1056)
- Molecular and Environmental Toxicology, M.S. (p. 1056)
- Molecular and Environmental Toxicology, Ph.D. (p. 1059)
- Neuroscience, Doctoral Minor (p. 1062)
- Neuroscience, M.S. (p. 1063)
- Neuroscience, Ph.D. (p. 1066)
- Physiology, Doctoral Minor (p. 1071)
- Physiology, M.S. (p. 1071)
- Physiology, Ph.D. (p. 1073)

ENDOCRINOLOGY-REPRODUCTIVE PHYSIOLOGY, DOCTORAL MINOR

The Endocrinology and Reproductive Physiology (ERP) Program is a multidisciplinary degree-granting program designed to promote research in both endocrinology and reproductive biology, to provide training and experience for pre- and post-doctoral students interested in these fields, and to provide training in problems of endocrine physiology and reproductive physiology in animals and humans. The program trains master's and Ph.D. candidates for teaching and research careers in all aspects of the interrelated fields of endocrinology and reproductive physiology—basic, clinical and translational. Students have access to a full range of research facilities throughout campus.

The multidisciplinary research and the diverse interests of the faculty make possible many approaches to the study of both endocrinology and reproduction, providing the individual student with a wide selection of research training experiences. Research opportunities are available, but not limited to: endocrine molecular signaling, endocrine physiology in body function and dysfunction, stem-cell programming, gamete and embryo biology, pregnancy, lactation, neuroendocrinology and placenta development. Research models range from molecular and cellular all the way to whole animal including nonhuman primates and humans.

A doctoral minor in Endocrinology and Reproductive Physiology may augment the training for Ph.D. students in a variety of biological sciences research fields. Students may seek greater exposure to clinical and translation research, and the human health implications of their Ph.D. research; may want to learn more about pregnancy and development so as to consider the potential effects of an agent (e.g., a pharmaceutical or toxicological agent) on human development; may want to consider how changes to one system might affect another; etc. Due to its relevance

across a wide range of research areas, as well as our unique courses (<http://erp.wisc.edu/current-students/course-offerings>) on endocrinology, reproduction, pregnancy, and development, an ERP doctoral minor one of the more popular doctoral minors relevant to biomedical sciences at UW–Madison.

For more information on ERP's doctoral minor, you can view our doctoral minor form (https://erp.wiscweb.wisc.edu/wp-content/uploads/sites/407/2017/12/ERP-Minor_2017.doc) and contact our program coordinator, Grace Jensen, gjensen2@wisc.edu.

If you are interested in obtaining a distributed minor (Option B), you can work with your major department to ensure that courses you take through the ERP program can count toward your doctoral minor.

ADMISSIONS

Should you be curious whether an ERP doctoral minor would augment your graduate studies, please contact the program coordinator to discuss your research and career goals. Timing is important—remember that a doctoral minor must be completed before a student can advance to candidacy. Graduate students in their first and second years of study are usually best positioned to add a doctoral minor to their degree plan.

To apply: With support from your advisor and proposed ERP doctoral minor advisor, submit the ERP minor form (https://erp.wiscweb.wisc.edu/wp-content/uploads/sites/407/2017/12/ERP-Minor_2017.doc). The ERP program directors will determine whether an ERP minor is appropriate and feasible. There are no standard deadlines for submission for ERP doctoral minor applications.

FUNDING

While most ERP M.S. and Ph.D. students are funded through graduate appointments and fellowships, we do not generally provide funding for students obtaining an ERP doctoral minor. If the project is relevant to NICHHD, an ERP doctoral minor may apply for a funding through the Endocrinology and Reproductive Physiology program's T32 training grant (<http://erp.wisc.edu/current-students/nih-training-grant>), if funding and space permits.

REQUIREMENTS

CREDIT REQUIREMENT

10+ credits

Code	Title	Credits
Required Courses		
AN SCI 875	Special Topics (Endocrine Physiology)	3
AN SCI/OBS&GYN/ ZOOLOGY 954	Seminar in Endocrinology-Reproductive Physiology (2 semesters, one presentation required)	1
Select two courses from the following (2 credits each):		
AN SCI 875	Special Topics (Pregnancy, Parturition and Lactation)	
AN SCI 875	Special Topics (Reproductive Patterns)	

AN SCI 875	Special Topics (Selected Topics in Endocrinology and Reproductive Physiology)
NTP 675	Special Topics (Reproductive Neuroendocrinology)
CRB 610	Fundamentals of Mammalian Embryology

Additional coursework selected in consultation with minor advisor

ERP ANNUAL SYMPOSIUM

- Required to attend annually
- Required to submit an abstract for a poster / oral presentation each year until degree completion

POLICIES

Please see the Endocrinology and Reproductive Physiology program's Student Handbook, available in our program documents (<http://erp.wisc.edu/current-students/program-documents>) on our website.

PEOPLE

Faculty:

Professors Ian Bird -director- (Obstetrics and Gynecology), David Abbott (Obstetrics and Gynecology), Elaine Alarid (Oncology), William Bosu (Medical Sciences/Veterinary Medicine), Ted Golos (Comparative Biosciences), Colin Jefcoate (Cell and Regenerative Biology), Hasan Khatib (Dairy Sciences), Pam Kling (Pediatrics), Jon Levine (Neuroscience), Bo Liu (Surgery), Thomas Martin (Biochemistry), James Ntambi (Biochemistry/Nutritional Sciences), Jon Odorico (Surgery), Jon Parrish (Animal Sciences), Manish Patankar -associate director- (Obstetrics and Gynecology), Bret Payseur (Genetics), Francisco Pelegri (Genetics), Richard Peterson (Pharmacy), Linda Schuler (Comparative Biosciences/Veterinary Medicine), Dinesh Shah (Obstetrics and Gynecology), Ei Terasawa (Pediatrics), James Thomson (Cell and Regenerative Biology), Watters (Comparative Biosciences/Veterinary Medicine), Milo Wiltbank (Dairy Science), Wi Xu (Oncology), and Jing Zheng (Obstetrics and Gynecology)

Associate Professors Craig Atwood (Medicine), Anjon Audhya (Biomolecular Chemistry), Dawn Davis (Medicine), Theresa Duello (Obstetrics and Gynecology), Laura Hernandez (Dairy Science), Joan Jorgensen (Comparative Biosciences), Chad Vezina (Comparative Biosciences/Veterinary Medicine)

Assistant Professors Reid Alisch (Psychiatry), Lisa Arendt (Comparative Biosciences), Sebastian Arriola Apelo (Dairy Science), Barak Blum (Cell and Regenerative Biology), Derek Boeldt (Obstetrics and Gynecology), Michael Cahill (Comparative Biosciences/Veterinary Medicine), Ricki Colman (Cell and Regenerative Biology), Feyza Engin (Biomolecular Chemistry), Michelle Kimple (Medicine), Pam Kreeger (Biomedical Engineering), Matthew Merrins (Medicine), Bikash Pattnaik (Pediatrics), Aleks Stanic-Kostic (Obstetrics and Gynecology)

ENDOCRINOLOGY-REPRODUCTIVE PHYSIOLOGY, M.S.

The Endocrinology and Reproductive Physiology (ERP) Program is a multidisciplinary degree-granting program designed to promote research in both endocrinology and reproductive biology, to provide training and experience for pre- and post-doctoral students interested in these fields, and to provide training in problems of endocrine physiology and reproductive physiology in animals and humans. The program trains Master's and Ph.D. candidates for teaching and research careers in all aspects of the interrelated fields of endocrinology and reproductive physiology—basic, clinical and translational. Students have access to a full range of research facilities throughout campus.

Students that join ERP for a master's degree range from those pursuing their first postgraduate degree to those with terminal degrees seeking additional training (i.e., Ph.D graduates and M.D. fellows).

The multidisciplinary research and the diverse interests of the faculty make possible many approaches to the study of both endocrinology and reproduction, providing the individual student with a wide selection of research training experiences. Research opportunities are available, but not limited to: endocrine molecular signaling, endocrine physiology in body function and dysfunction, stem-cell programming, gamete and embryo biology, pregnancy, lactation, neuroendocrinology and placenta development. Research models range from molecular and cellular all the way to whole animal including nonhuman primates and humans.

All M.S. students complete a core set of courses including participation in the weekly seminar program. After fulfilling core course requirements, students have the ability to design a curriculum that meets individual research and career interests. Students also have multiple opportunities to present research work in courses, seminars and symposia, and at regional, national and international scientific meetings. Upon concluding the M.S. degree, students will have general knowledge of endocrinology and reproduction, will have expertise in their research areas, and will have developed technical and analytical skills.

All students are required to form a thesis committee during the first year of study and have an annual meeting with the members. A written progress report must be submitted annually to the program administrator.

ADMISSIONS

Admission to the program is competitive; applications are due December 1 of each year for fall semester. Potential applicants will have a major in the biological sciences, a minimum undergraduate GPA of 3.3/4.0, and appropriate preparatory courses in physiology, chemistry, biochemistry, biology, physics, calculus, statistics, organic chemistry, and genetics. Prior laboratory research experience is strongly recommended.

The application process includes the completion and submission of the online Graduate School application, payment of the application fee, submission of a personal statement for graduate study, receipt of GRE scores and TOEFL or International English Language Testing System (IELTS) scores (TOEFL and IELTS are for international applicants) by Educational Testing Service, receipt of three letters of recommendation, an unofficial transcript, and a current curriculum vitae. Applicants are strongly encouraged to use the online reference feature in the Graduate School application system.

Completed applications for fall entry are reviewed by a panel of faculty. Applicants who pass this first step will be invited for a campus visit to interview with faculty and learn more about the program. Applications for spring or summer term are rare but possible, but only with the approval of the admissions committee. Please contact the program coordinator in advance of submitting an off-cycle application.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

More than 95 percent of the program's enrolled students are supported by a research assistantship or fellowship. Incoming applicants are considered for competitive fellowships during the admissions process; no additional application is required. Additional fellowship support for minority and educationally disadvantaged students is also available (prospective students should contact the program administrator at the time of application). Teaching assistantships are discouraged until the student has passed the preliminary exam. Financial support generally includes tuition remission, monthly stipend check, and participation in the State of Wisconsin health insurance program. Benefit costs change on an annual basis; contact the program administrator for current rates. Support for international students varies by faculty advisor. International students offered admission will be required to submit a notarized financial statement prior to visa documents being issued.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses

and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules.

Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum 30 credits

Credit Requirement

Minimum 16 credits

Residence Credit Requirement

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements

The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Contact the program for information on required assessments and examinations.

Language Requirements Contact the program for information on any language requirements.

REQUIRED COURSES

Code	Title	Credits
AN SCI 875	Special Topics (Endocrine Physiology)	3
STAT/F&W ECOL/ HORT 571	Statistical Methods for Bioscience I	4
or STAT/ B M I 541	Introduction to Biostatistics	
BIOCHEM 507 & BIOCHEM 508	General Biochemistry I and General Biochemistry II	3
or BIOCHEM 501	Introduction to Biochemistry	

OBS&GYN 955	Responsible Conduct of Research for Biomedical Graduate Students	2
OBS&GYN/AN SCI/ ZOOLOGY 954	Seminar in Endocrinology-Reproductive Physiology	1
Electives—additional statistics, biochemistry and advanced topics courses as determined by the thesis committee		

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<http://erp.wisc.edu/current-students/program-documents>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

Courses taken that fulfill equivalent program requirements may be considered to exempt a class. Exemptions must be discussed with the program director. One course may be substituted for another due to background and interest. Statistics courses may be considered by the student's advisory committee for exemption; however, students are still strongly encouraged to have this refresher. Decisions of the director are final.

These exemptions do not waive a student from any credits, merely from taking the courses. The student will still need to accumulate 30 credits for their degree.

UW-Madison Undergraduate

Courses taken that fulfill equivalent program requirements may be considered to exempt a class. Exemptions must be discussed with the program director. One course may be substituted for another due to background, interest, or program-related career relevance. Statistics courses may be considered by the student's advisory committee for exemption; however, students are still strongly encouraged to have this refresher or choose one with different emphasis (e.g., clinical). Decisions of the director are final.

These exemptions do not waive a student from any credits, merely from taking the courses. The student will still need to accumulate 30 credits for the degree.

UW-Madison University Special

Courses taken that fulfill equivalent program requirements may be considered to exempt a class. Exemptions must be discussed with the program director. One course may be substituted for another due to background, interest, or program-related career relevance. Statistics courses may

be considered by the student's advisory committee for exemption; however, students are still strongly encouraged to have this refresher or choose one with different emphasis (e.g., clinical). Decisions of the director are final.

These exemptions do not waive a student from any credits, merely from taking the courses. The student will still need to accumulate 30 credits for the degree.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

12 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Most ERP students are 100% funded through research assistantships and/or fellowships, which include tuition, health insurance, and a monthly stipend.

2. Identifies sources and assembles evidence pertaining to questions or challenges in the field of study.
3. Demonstrates understanding of the primary field of study in a historical, social, or global context.
4. Selects and/or utilizes the most appropriate methodologies and practices.
5. Evaluates or synthesizes information pertaining to questions or challenges in the field of study.
6. Communicates clearly in ways appropriate to the field of study.
7. Recognizes and applies principles of ethical and professional conduct.

PEOPLE

Faculty:

Professors Ian Bird -director- (Obstetrics and Gynecology), David Abbott (Obstetrics and Gynecology), Elaine Alarid (Oncology), William Bosu (Medical Sciences/Veterinary Medicine), Ted Golos (Comparative Biosciences), Colin Jefcoate (Cell and Regenerative Biology), Hasan Khatib (Dairy Sciences), Pam Kling (Pediatrics), Jon Levine (Neuroscience), Bo Liu (Surgery), Thomas Martin (Biochemistry), James Ntambi (Biochemistry/Nutritional Sciences), Jon Odorico (Surgery), Jon Parrish (Animal Sciences), Manish Patankar -associate director- (Obstetrics and Gynecology), Bret Payseur (Genetics), Francisco Pelegri (Genetics), Richard Peterson (Pharmacy), Linda Schuler (Comparative Biosciences/Veterinary Medicine), Dinesh Shah (Obstetrics and Gynecology), Ei Terasawa (Pediatrics), James Thomson (Cell and Regenerative Biology), Watters (Comparative Biosciences/Veterinary Medicine), Milo Wiltbank (Dairy Science), Wi Xu (Oncology), and Jing Zheng (Obstetrics and Gynecology)

Associate Professors Craig Atwood (Medicine), Anjon Audhya (Biomolecular Chemistry), Dawn Davis (Medicine), Theresa Duello (Obstetrics and Gynecology), Laura Hernandez (Dairy Science), Joan Jorgensen (Comparative Biosciences), Chad Vezina (Comparative Biosciences/Veterinary Medicine)

Assistant Professors Reid Alisch (Psychiatry), Lisa Arendt (Comparative Biosciences), Sebastian Arriola Apelo (Dairy Science), Barak Blum (Cell and Regenerative Biology), Derek Boeldt (Obstetrics and Gynecology), Michael Cahill (Comparative Biosciences/Veterinary Medicine), Ricki Colman (Cell and Regenerative Biology), Feyza Engin (Biomolecular Chemistry), Michelle Kimple (Medicine), Pam Kreeger (Biomedical Engineering), Matthew Merrins (Medicine), Bikash Pattnaik (Pediatrics), Aleks Stanic-Kostic (Obstetrics and Gynecology)

ENDOCRINOLOGY-REPRODUCTIVE PHYSIOLOGY, PH.D.

The Endocrinology and Reproductive Physiology (ERP) Program is a multidisciplinary degree-granting program designed to promote research in both endocrinology and reproductive biology, to provide training and experience for pre- and post-doctoral students interested in these fields, and to provide training in problems of endocrine physiology and reproductive physiology in animals and humans. The program trains master's and Ph.D. candidates for teaching and research careers in all

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Articulates, critiques, or elaborates the theories, research methods, and approaches to inquiry in the field of study.

aspects of the interrelated fields of endocrinology and reproductive physiology—basic, clinical and translational. Students have access to a full range of research facilities throughout campus. A joint M.D./Ph.D. degree is also offered by the School of Medicine and Public Health and student trainees are eligible to train for the Ph.D. in the ERP program.

Postdoctoral Fellows are encouraged to join the program as associate members and participate in the program's diverse activities. While postdoctoral positions are arranged directly with individual faculty members, ERP also seeks NIH support in this area. The program supports and mentors the training of both Ph.D. and M.D. fellows in translational studies.

The multidisciplinary research and the diverse interests of the faculty make possible many approaches to the study of both endocrinology and reproduction, providing the individual student with a wide selection of research training experiences. Research opportunities are available, but not limited to: endocrine molecular signaling, endocrine physiology in body function and dysfunction, stem-cell programming, gamete and embryo biology, pregnancy, lactation, neuroendocrinology and placenta development. Research models range from molecular and cellular all the way to whole animal including nonhuman primates and humans.

All students complete a core set of courses during the first two years of enrollment in the program including participation in the weekly seminar program. After fulfilling core course requirements, students have the ability to design a curriculum that meets individual research and career interests. Students also have multiple opportunities to present research work in courses, seminars and symposia, and at regional, national and international scientific meetings. The preliminary exam for Ph.D. candidates is based on the research project and is structured in the form of a competitive grant proposal. Part one of the exam is development of the written proposal and submission to the thesis committee for review. Part two is focused on the rebuttal and oral review of the comments. Students should aim to complete the preliminary exam by the start of the third year of study and defend the thesis in the fifth year.

All students are required to form a thesis committee during the first year of study and have an annual meeting with the members. A written progress report must be submitted annually to the program administrator.

ADMISSIONS

Admission to the program is competitive; applications are due December 1 of each year for fall semester. Potential applicants will have a major in the biological sciences, a minimum undergraduate GPA of 3.3/4.0, and appropriate preparatory courses in physiology, chemistry, biochemistry, biology, physics, calculus, statistics, organic chemistry, and genetics. Prior laboratory research experience is strongly recommended.

The application process includes the completion and submission of the online Graduate School application, payment of the application fee, submission of a personal statement for graduate study, receipt of GRE scores and TOEFL or International English Language Testing System (IELTS) scores (TOEFL and IELTS are for international applicants) by Educational Testing Service, receipt of three letters of recommendation, unofficial transcripts, and a current curriculum vitae. Applicants are strongly encouraged to use the online reference feature in the Graduate School application system.

Completed applications for fall entry are reviewed by a panel of faculty. Applicants who pass this first step will be invited to a campus visit to interview with faculty and learn more about the program. Applications for

spring or summer term are rare but possible, but only with the approval of the admissions committee – please contact the program coordinator in advance of submitting an off-cycle application.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

More than 95 percent of the program's enrolled students are supported by a research assistantship or fellowship. Incoming applicants are considered for competitive fellowships during the admissions process; no additional application is required. Additional fellowship support for minority and educationally disadvantaged students is also available (prospective students should contact the program administrator at the time of application). Teaching assistantships are discouraged until the student has passed the preliminary exam. Training-grant support may be considered in the third through fifth years of study for Ph.D. students, assuming the student meets citizenship criteria, satisfactory academic progress, has a project that is relevant to the mission of NICHHD, and continued funding by the National Institutes of Health. Financial support generally includes tuition remission, monthly stipend check, and participation in the State of Wisconsin health insurance program. Benefit costs change on an annual basis; contact the program administrator for current rates. Support for international students varies by faculty advisor. International students offered admission will be required to submit a notarized financial statement prior to visa documents being issued.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 51 credits

Minimum Residence Credit Requirement 32 credits

Minimum Graduate Coursework Requirement Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Doctoral students are required to take a comprehensive preliminary/oral examination after they have cleared their record of all Incomplete and Progress grades (other than research and thesis). Deposit of the doctoral dissertation in the Graduate School is required.

Language Requirements Contact the program for information on any language requirements.

Doctoral Minor/Breadth Requirements Doctoral students are not required to complete a doctoral minor.

REQUIRED COURSES

Code	Title	Credits
Required Core		
AN SCI 875	Special Topics (Endocrine Physiology)	3

STAT/F&W ECOL/ HORT 571	Statistical Methods for Bioscience I	4
or STAT/ B M I 541	Introduction to Biostatistics	
BIOCHEM 507	General Biochemistry I	3
BIOCHEM 508	General Biochemistry II	3-4
BIOCHEM/PHMCOL- M/ZOOLOGY 630	Cellular Signal Transduction Mechanisms	3
or NTP/ NEURODPT 610	Cellular and Molecular Neuroscience	
OBS&GYN 955	Responsible Conduct of Research for Biomedical Graduate Students	2
OBS&GYN 956	Advanced Responsible Conduct of Research for Biomedical Students	1
OBS&GYN/AN SCI/ ZOOLOGY 954	Seminar in Endocrinology- Reproductive Physiology	1
Electives—additional statistics, biochemistry, and advanced topics courses as determined by the thesis committee		

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<http://erp.wisc.edu/current-students/program-documents>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

Courses taken that fulfill equivalent program requirements may be considered to exempt a class. Exemptions must be discussed with the program director. One course may be substituted for another due to background and interest. Statistics courses may be considered by the student's advisory committee for exemption; however, students are still strongly encouraged to have this refresher. Decisions of the director are final.

These exemptions do not waive a student from any credits, merely from taking the courses. The student will still need to accumulate 51 credits for their degree.

UW—Madison Undergraduate

Courses taken that fulfill equivalent program requirements may be considered to exempt a class. Exemptions must be discussed with the program director. One course may be substituted for another due to background, interest, or program-related career relevance. Statistics courses may be considered by the student's advisory committee for

exemption; however, students are still strongly encouraged to have this refresher or choose one with different emphasis (e.g., clinical). Decisions of the director are final.

These exemptions do not waive a student from any credits, merely from taking the courses. The student will still need to accumulate 51 credits for the degree.

UW–Madison University Special

Courses taken that fulfill equivalent program requirements may be considered to exempt a class. Exemptions must be discussed with the program director. One course may be substituted for another due to background, interest, or program-related career relevance. Statistics courses may be considered by the student's advisory committee for exemption; however, students are still strongly encouraged to have this refresher or choose one with different emphasis (e.g. clinical). Decisions of the director are final.

These exemptions do not waive a student from any credits, merely from taking the courses. The student will still need to accumulate 51 credits for the degree.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies. An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor.

To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within 5 years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

OTHER

Most ERP students are 100% funded through research assistantships and/or fellowships, which include tuition, health insurance, and a monthly stipend.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Articulates research problems, potentials, and limits with respect to theory, knowledge, or practice within the field of study.
2. Formulates ideas, concepts, designs, and/or techniques beyond the current boundaries of knowledge within the field of study.
3. Creates research, scholarship, or performance that makes a substantive contribution.
4. Demonstrates breadth within their learning experiences.
5. Advances contributions of the field of study to society.
6. Communicates complex ideas in a clear and understandable manner.
7. Fosters ethical and professional conduct.

PEOPLE

Faculty:

Professors Ian Bird -director- (Obstetrics and Gynecology), David Abbott (Obstetrics and Gynecology), Elaine Alarid (Oncology), William Bosu (Medical Sciences/Veterinary Medicine), Ted Golos (Comparative Biosciences), Colin Jefcoate (Cell and Regenerative Biology), Hasan Khatib (Dairy Sciences), Pam Kling (Pediatrics), Jon Levine (Neuroscience), Bo Liu (Surgery), Thomas Martin (Biochemistry), James Ntambi (Biochemistry/Nutritional Sciences), Jon Odorico (Surgery), Jon Parrish (Animal Sciences), Manish Patankar -associate director- (Obstetrics and Gynecology), Bret Payseur (Genetics), Francisco Pelegri (Genetics), Richard Peterson (Pharmacy), Linda Schuler (Comparative Biosciences/Veterinary Medicine), Dinesh Shah (Obstetrics and Gynecology), Ei Terasawa (Pediatrics), James Thomson (Cell and Regenerative Biology), Watters (Comparative Biosciences/Veterinary Medicine), Milo Wiltbank (Dairy Science), Wi Xu (Oncology), and Jing Zheng (Obstetrics and Gynecology)

Associate Professors Craig Atwood (Medicine), Anjon Audhya (Biomolecular Chemistry), Dawn Davis (Medicine), Theresa Duello (Obstetrics and Gynecology), Laura Hernandez (Dairy Science), Joan Jorgensen (Comparative Biosciences), Chad Vezina (Comparative Biosciences/Veterinary Medicine)

Assistant Professors Reid Alisch (Psychiatry), Lisa Arendt (Comparative Biosciences), Sebastian Arriola Apelo (Dairy Science), Barak Blum (Cell and Regenerative Biology), Derek Boeldt (Obstetrics and Gynecology), Michael Cahill (Comparative Biosciences/Veterinary Medicine), Ricki

Colman (Cell and Regenerative Biology), Feyza Engin (Biomolecular Chemistry), Michelle Kimple (Medicine), Pam Kreeger (Biomedical Engineering), Matthew Merrins (Medicine), Bikash Pattnaik (Pediatrics), Aleks Stanic-Kostic (Obstetrics and Gynecology)

MOLECULAR AND CELLULAR PHARMACOLOGY, DOCTORAL MINOR

The objective of the doctoral minor in Molecular and Cellular Pharmacology is to equip students with an introduction to some of the skills required to conduct state-of-the-art biomolecular, biomedical, and pharmacological basic research. Advances in biomedical sciences are often based on the development of new drugs, which improve and save the lives of millions of patients. Drugs with specific biochemical actions are also powerful research tools. They provide pharmacologists and other biomedical scientists unique research opportunities which help to elucidate cellular signaling cascades.

ADMISSIONS

Please contact: Kristin Cooper, Program Coordinator: kgcooper@wisc.edu

REQUIREMENTS

Code	Title	Credits
PHMCOL-M 781	Molecular and Cellular Principles in Pharmacology	4
PHMCOL-M/ BIOCHEM/ ZOOLOGY 630	Cellular Signal Transduction Mechanisms	3
PHMCOL-M/ M&ENVTOX/ MEDICINE/ ONCOLOGY/ PHM SCI/ POP HLTH 625	Toxicology I	3
Total Credits		10

LEARNING OUTCOMES

1. Gain a basic understanding of the pharmacological principles that underlie all biological processes.
2. Become aware of the current limitations of the state of understanding of this discipline and the strategies that are required to advance the field of pharmacology.
3. Fosters ethical and professional conduct in the sciences, including but not limited to: exposition of the scientific method; ethical design of experimental protocols; reproducibility in science; professional behavior in industrial, government, and academic settings; documentation of scientific results; communication to other scientists and the public; peer review; and confidentiality.

PEOPLE

Faculty: Professors Anderson, Auger, Beebe, Bement, Bresnick, Chapman, Cryns, Czajkowski, Denu, Galipeau, Greenspan, Hayney, Huttenlocher, Jackson, Johnson, Kalejta, Kalin, Kamp, Keck, Kimble, Kuo, Kwon, Li, Masters, Miyamoto, Mosher, Murphy, Rapraeger, Ricke, Roy, Schuler, Sheibani, Slukvin, Svaren, Tang, Thomson, Tibbetts, Wassarman, Xu, Yang, Zhang, Zhao. Associate Professors Audhya, Bugni, Burkard, Buxton, Chanda, Chang, Collier, Ge, Hornberger, Johannsen, Jorgensen, Kimple M., Kreeger, Lee, Pagliarini, Roopra, Rose, Sheehan, Sherer, Skala, Striker, Weaver, Wheeler, Xing. Assistant Professors Blum, Engin, Fan, Jiang, Kang, Kimple R., Lamming, Lou, Mahmoud, Moore, Rui, Saha, Sauer, Sridharan.

MOLECULAR AND CELLULAR PHARMACOLOGY, M.S.

The Molecular and Cellular Pharmacology (MCP) program, in cooperation with the Center for Training in Pharmacology and Drug Development (CTPDD), offers interdisciplinary graduate training in the field of molecular and cellular pharmacology. The primary emphasis is doctoral training in molecular biology, biochemistry, genetics, and cell biology with a focus on integrating these methodologies with modern pharmacology. Other related degree programs under the direction of program faculty are cellular and molecular biology, environmental toxicology, neuroscience, biomolecular chemistry, and genetics.

Pharmacology is the knowledge of the biochemical and physiological actions of drugs, which act on cellular signaling pathways. The molecular basis of cellular signaling and its control by various drugs is a major aspect of modern pharmacology and this aspect is emphasized in the Molecular and Cellular Pharmacology Training Program. The majority of signal transduction pathways still await discovery or at least a thorough molecular characterization. Members of our program employ the whole spectrum of modern biochemical, cell and molecular biological, physiological, and pharmacological methods in a basic research-oriented scientific environment to unravel the many unsolved mysteries underlying cellular regulation and signaling. Certain research initiatives have a translational component, with the goal of applying basic discoveries to developing new therapeutic modalities. Our program brings together an outstanding group of dedicated trainers with a focus on cellular signal transduction.

Graduates of the program will be well prepared for a career in basic biomedical sciences in academia, industry, and more. We provide a unique training experience for young scientists who want to elucidate basic principles of cellular signal pathways. Detailed knowledge of these pathways is the most important prerequisite for the discovery of new drugs and the treatment of diseases. The members of the Molecular and Cellular Pharmacology Training Program invite you to examine the educational and research opportunities described at this site, and to consider joining this unique and exciting graduate program.

ADMISSIONS

This master's program is offered for work leading to the Ph.D. Students may not apply directly for the master's, and should instead see the admissions information for the Ph.D (p. 1053).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum 30 credits
Credit Requirement

Minimum 16 credits
Residence Credit Requirement

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Contact the program for information on required assessments and examinations.

Language Requirements Contact the program for information on any language requirements.

REQUIRED COURSES

Code	Title	Credits
PHMCOL-M 781	Molecular and Cellular Principles in Pharmacology	4
PHMCOL-M/ M&ENVTOX/ MEDICINE/ ONCOLOGY/ PHM SCI/ POP HLTH 625	Toxicology I	3
PHMCOL-M/ BIOCHEM/ ZOOLOGY 630	Cellular Signal Transduction Mechanisms	3
OBS&GYN 955	Responsible Conduct of Research for Biomedical Graduate Students	2

Research & Seminar

PHMCOL-M 901	Seminar and Journal Club ¹
PHMCOL-M 990	Research ²

¹ Students are required to take 1 credit of seminar each fall and spring semester during enrollment as a graduate student in the program.

² Students must take research credits every semester. Credits will vary.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (https://molpharm.wiscweb.wisc.edu/wp-content/uploads/sites/262/2017/07/MCPPProgHandbook_8-31-2017.pdf) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 7 credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

With program approval, students are allowed to count no more than 15 credits of coursework numbered 300 or above taken as a UW–Madison Special student. Coursework earned five or more years prior to admission to a master's is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor and committee. The advisor serves a dual role: first, to assist the student in acquiring the highest level of knowledge and competence in the field that is possible; and second, to chair the committee that will determine whether the student has performed acceptably at each of his/ her degree milestones. The chair or co-chair of the committee must be Graduate Faculty from the student's program. Advisors may assist in tracking the student's progress toward degree completion, assisting with course selection and academic planning, and helping students identify possible research mentors, committee members, and opportunities.

Master's thesis committees must have at least three members; two must be Graduate Faculty or former Graduate Faculty up to one year after resignation or retirement.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

All students in the Graduate Program in Molecular and Cellular Pharmacology receive competitive stipends to cover living expenses, tuition and fees from Graduate School Fellowships, NIH Training Grants, or research assistantships funded through the Graduate Program. Health insurance costs are partially covered by the university and provide the same coverage as for faculty and staff.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PROGRAM RESOURCES

The MCP Program and UW–Madison offer a wealth of resources intended to enrich graduate student studies and enhance professional skills. It is expected that students will take full advantage of the resources that best fit their needs and support their career goals. Since MCP alumni thrive in academia, industry, corporate, government, and non-profit arenas, we strive to be holistic and innovative in our approach to meeting the diverse professional development needs of our students. By actively participating in these professional development opportunities, students will build the skills needed to succeed academically at UW–Madison and to thrive professionally in their chosen career. For the most updated information, please visit: MCP Program Professional Development (<https://molpharm.wisc.edu/career-development>)

LEARNING OUTCOMES

1. Gain a broad understanding of the pharmacological principles that underlie all biological processes.
2. Become aware of the current limitations of the state of understanding of this discipline and the strategies that are required to advance the field of pharmacology.
3. Creates new approaches in research, scholarship, or performance that makes a substantive contribution.
4. Conduct independent research using a breadth of pharmacological processes.
5. Think critically to address research challenges using a broad range of the theories, research methods, and approaches to scientific inquiry.
6. Collaborate with investigators within the program, university, and beyond since current and future advances in pharmacological sciences demand interdisciplinary skills.
7. Fosters ethical and professional conduct in the sciences, including but not limited to: exposition of the scientific method; ethical design of experimental protocols; reproducibility in science; professional behavior in industrial, government, and academic settings; documentation of scientific results; communication to other scientists and the public; peer review; and confidentiality.
8. Communicates complex ideas in a clear and understandable manner.

9. Explore career development opportunities in industry, government, and academia to realize professional goals and paths.

10. Develop teaching and mentoring skills in both lecture and laboratory settings.

PEOPLE

Faculty: Professors Anderson, Auger, Beebe, Bement, Bresnick, Chapman, Cryns, Czajkowski, Denu, Galipeau, Greenspan, Hayney, Huttenlocher, Jackson, Johnson, Kalejta, Kalin, Kamp, Keck, Kimble, Kuo, Kwon, Li, Masters, Miyamoto, Mosher, Murphy, Rapraeger, Ricke, Roy, Schuler, Sheibani, Slukvin, Svaren, Tang, Thomson, Tibbetts, Wassarman, Xu, Yang, Zhang, Zhao. Associate Professors Audhya, Bugni, Burkard, Buxton, Chanda, Chang, Collier, Ge, Hornberger, Johannsen, Jorgensen, Kimple M., Kreeger, Lee, Pagliarini, Roopra, Rose, Sheehan, Sherer, Skala, Striker, Weaver, Wheeler, Xing. Assistant Professors Blum, Engin, Fan, Jiang, Kang, Kimple R., Lamming, Lou, Mahmoud, Moore, Rui, Saha, Sauer, Sridharan.

MOLECULAR AND CELLULAR PHARMACOLOGY, PH.D.

The Molecular and Cellular Pharmacology (MCP) program, in cooperation with the Center for Training in Pharmacology and Drug Development (CTPDD), offers interdisciplinary graduate training in the field of molecular and cellular pharmacology. The primary emphasis is doctoral training in molecular biology, biochemistry, genetics, and cell biology with a focus on integrating these methodologies with modern pharmacology. Other related degree programs under the direction of program faculty are cellular and molecular biology, environmental toxicology, neuroscience, biomolecular chemistry, and genetics.

Pharmacology is the knowledge of the biochemical and physiological actions of drugs, which act on cellular signaling pathways. The molecular basis of cellular signaling and its control by various drugs is a major aspect of modern pharmacology and this aspect is emphasized in the Molecular and Cellular Pharmacology Training Program. The majority of signal transduction pathways still await discovery or at least a thorough molecular characterization. Members of our program employ the whole spectrum of modern biochemical, cell and molecular biological, physiological, and pharmacological methods in a basic research-oriented scientific environment to unravel the many unsolved mysteries underlying cellular regulation and signaling. Certain research initiatives have a translational component, with the goal of applying basic discoveries to developing new therapeutic modalities. Our program brings together an outstanding group of dedicated trainers with a focus on cellular signal transduction.

Graduates of the program will be well prepared for a career in basic biomedical sciences in academia, industry, and more. We provide a unique training experience for young scientists who want to elucidate basic principles of cellular signal pathways. Detailed knowledge of these pathways is the most important prerequisite for the discovery of new drugs and the treatment of diseases. The members of the Molecular and Cellular Pharmacology Training Program invite you to examine the educational and research opportunities described at this site, and to consider joining this unique and exciting graduate program.

ADMISSIONS

The Graduate School sets minimum requirements for admissions (<https://grad.wisc.edu/admissions/requirements>). Academic program admission requirements are often more rigorous than those set by the Graduate School. Please check the MCP Program website (<https://molpharm.wisc.edu/admissions-how-to-apply>) for details.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

ANNUAL STIPEND AND BENEFITS

All students receive competitive stipends to cover living expenses. The benefits package also includes tuition remission and a choice of comprehensive health insurance plans which include medical, dental, and vision at a minimal cost. It is the same coverage offered to faculty and staff.

TRAINING GRANTS

Many of our graduate students are supported by NIH training grants. Prospective students must be nominated by the MCP Admissions Committee or by faculty mentors to receive training grant support from the MCP NIH T32 GM008688. Opportunities may also be available during the first semester of study, and students are encouraged to contact the MCP program for assistance with the nomination process.

FELLOWSHIPS

Some students are supported by University fellowships administered by the University's Office of Fellowships at the Graduate School. Prospective students must be nominated by the program, and awardees are chosen by the UW Fellowships Committee. Other extramural funding sources include NIH, NSF, DOD, DOE, AHA, PhRMA, and more. Students can receive application assistance from the program and the university.

Prospective students should check the MCP Program website (<https://molpharm.wisc.edu/funding-available-to-mcp-students>) for the most updated funding information.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 51 credits

Minimum Residence Credit Requirement 32 credits

Minimum Graduate Coursework Requirement Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Doctoral students are required to take a comprehensive preliminary/oral examination after they have cleared their record of all Incomplete and Progress grades (other than research and thesis). Deposit of the doctoral dissertation in the Graduate School is required.

Language Requirements Contact the program for information on any language requirements.

Doctoral Minor/Breadth Requirements Doctoral students are not required to complete a minor, but may do so if they wish.

REQUIRED COURSES

Code	Title	Credits
PHMCOL-M 781	Molecular and Cellular Principles in Pharmacology	4
PHMCOL-M/ M&ENVTOX/ MEDICINE/ ONCOLOGY/ PHM SCI/ POP HLTH 625	Toxicology I	3
PHMCOL-M/ BIOCHEM/ ZOOLOGY 630	Cellular Signal Transduction Mechanisms	3
OBS&GYN 955	Responsible Conduct of Research for Biomedical Graduate Students	2

Research & Seminar

PHMCOL-M 901	Seminar and Journal Club ¹
PHMCOL-M 990	Research ²

¹ Students are required to take 1 credit of seminar each fall and spring semester during enrollment as a graduate student in the program.

² Students must take research credits every semester. Credits will vary.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://molpharm.wiscweb.wisc.edu/wp-content/uploads/sites/262/2017/07/>)

MCPProgHandbook_8-31-2017.pdf) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 7 credits of graduate coursework from other institutions. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

With program approval, students are allowed to count no more than 15 credits of coursework numbered 300 or above taken as a UW–Madison Special student. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor and committee. The advisor serves a dual role: first, to assist the student in acquiring the highest level of knowledge and competence in the field that is possible; and second, to chair the committee that will determine whether the student has performed acceptably at each of his/ her degree milestones. The chair or co-chair of the committee must be graduate faculty from the student's program. Advisors may assist in tracking the student's progress toward degree completion, assisting with course selection and academic planning, and helping students identify possible research mentors, committee members, and opportunities.

Minimum requirements for graduate committees are as follows:

- The chair or co-chair of the committee must be graduate faculty from the student's major program.
- The co-advisor/co-chair will be designated on dissertation documentation.
- Doctoral committees (Ph.D.) must have at least four members, three of whom must be MCP graduate faculty or former graduate faculty up to one year after resignation or retirement. At least one of the members must be from outside of the student's major field.
- At least three committee members of all doctoral/final oral examination committees must be designated as readers.
- Doctoral degree recipients must acknowledge in the dissertation contributions received from other individuals, including co-authors of published work that appears in the document, such as in designing the research, executing the research, analyzing the data, interpreting the data/research, or writing, proofing, or copyediting the manuscript.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

OTHER

All students in the Graduate Program in Molecular and Cellular Pharmacology receive competitive stipends to cover living expenses, tuition and fees from Graduate School Fellowships, NIH Training Grants, or research assistantships funded through the Graduate Program. Health insurance costs are partially covered by the university and provide the same coverage as for faculty and staff.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PROGRAM RESOURCES

The MCP Program and UW–Madison offer a wealth of resources intended to enrich graduate student studies and enhance professional skills. It is expected that students will take full advantage of the resources that best fit their needs and support their career goals. Since MCP alumni thrive in academia, industry, corporate, government, and non-profit arenas, we strive to be holistic and innovative in our approach to meeting the diverse professional development needs of our students. By actively participating in these professional development opportunities, students will build the skills needed to succeed academically at UW–Madison and to thrive professionally in their chosen career. For the most updated information, please visit: MCP Program Professional Development (<https://molpharm.wisc.edu/career-development>)

LEARNING OUTCOMES

1. Gain a broad understanding of the pharmacological principles that underlie all biological processes.
2. Become aware of the current limitations of the state of understanding of this discipline and the strategies that are required to advance the field of pharmacology.
3. Creates new approaches in research, scholarship, or performance that makes a substantive contribution.

4. Conduct independent research using a breadth of pharmacological processes.
5. Think critically to address research challenges using a broad range of the theories, research methods, and approaches to scientific inquiry.
6. Collaborate with investigators within the program, university, and beyond since current and future advances in pharmacological sciences demand interdisciplinary skills.
7. Fosters ethical and professional conduct in the sciences, including but not limited to: exposition of the scientific method; ethical design of experimental protocols; reproducibility in science; professional behavior in industrial, government, and academic settings; documentation of scientific results; communication to other scientists and the public; peer review; and confidentiality.
8. Communicates complex ideas in a clear and understandable manner.
9. Explore career development opportunities in industry, government, and academia to realize professional goals and paths.
10. Develop teaching and mentoring skills in both lecture and laboratory settings.

PEOPLE

Faculty: Professors Anderson, Auger, Beebe, Bement, Bresnick, Chapman, Cryns, Czajkowski, Denu, Galipeau, Greenspan, Hayney, Huttenlocher, Jackson, Johnson, Kalejta, Kalin, Kamp, Keck, Kimble, Kuo, Kwon, Li, Masters, Miyamoto, Mosher, Murphy, Rapraeger, Ricke, Roy, Schuler, Sheibani, Slukvin, Svaren, Tang, Thomson, Tibbetts, Wassarman, Xu, Yang, Zhang, Zhao. Associate Professors Audhya, Bugni, Burkard, Buxton, Chanda, Chang, Collier, Ge, Hornberger, Johannsen, Jorgensen, Kimple M., Kreeger, Lee, Pagliarini, Roopra, Rose, Sheehan, Sherer, Skala, Striker, Weaver, Wheeler, Xing. Assistant Professors Blum, Engin, Fan, Jiang, Kang, Kimple R., Lamming, Lou, Mahmoud, Moore, Rui, Saha, Sauer, Sridharan.

MOLECULAR AND ENVIRONMENTAL TOXICOLOGY, DOCTORAL MINOR

ADMISSIONS

Doctoral minors are open to all students who are already members of a doctoral program. Students interested in a minor in Molecular and Environmental Toxicology are encouraged to contact Mark Marohl, the program administrator, mdmarohl@wisc.edu.

REQUIREMENTS

Students in other fields who elect to minor in Molecular and Environmental Toxicology must satisfactorily complete a total of 10 credits in the program. Satisfactory completion of the minor requires a B average or better in the selected courses.

REQUIRED COURSES

Code	Title	Credits
M&ENVTOX/ MEDICINE/ ONCOLOGY/ PHM SCI/PHMCOL- M/POP HLTH 625	Toxicology I	3
M&ENVTOX/ MEDICINE/PHM SCI/ PHMCOL-M/ POP HLTH 626	Toxicology II	3
M&ENVTOX/ CIV ENGR/ SOIL SCI 631	Toxicants in the Environment: Sources, Distribution, Fate, & Effects	3
M&ENVTOX 699	Special Problems	1-3
M&ENVTOX 800	Seminar	1

ADVISOR / COMMITTEE

For the doctoral minor, at least one member of the student's research advisory committee must be affiliated with the Molecular & Environmental Toxicology Program.

PEOPLE

Faculty: See Faculty (http://metc.wisc.edu/people_category/faculty) on program website.

MOLECULAR AND ENVIRONMENTAL TOXICOLOGY, M.S.

Molecular and environmental toxicology is a multidisciplinary subject that involves the study of mechanisms of action of environmental toxicants on humans and other organisms and the behavior of these toxicants in the environment. The UW–Madison Molecular and Environmental Toxicology Center's graduate program provides students with expert knowledge in at least one specialty plus a broad understanding of other specialties that contribute to the resolution of environmental toxicology problems. The center is sponsored by the School of Medicine and Public Health as well as the College of Agricultural and Life Sciences, the School of Veterinary Medicine and the School of Pharmacy. The center links researchers in numerous academic departments who are working on problems in this area.

An interdisciplinary graduate program leading to the doctor of philosophy or a master of science in molecular and environmental toxicology is offered by the center under the direction of an executive committee composed of faculty affiliated with the center. The program offers two general approaches: mechanisms of pathobiology of chemically induced disease and environmental activities of chemicals. Each approach is subdivided into focal areas including metabolic and genetic toxicology, neurotoxicology, and immunotoxicology; and ecotoxicology, bioremediation, and distribution and assessment of environmental chemicals. All students participate in a core curriculum that addresses these various areas and that is supplemented by other advanced, specialized courses. Students perform research under the guidance of one of the center's graduate faculty members.

Recipients of graduate degrees in molecular and environmental toxicology pursue careers in governmental agencies (policymaking, regulations, standard setting, or research), private industry (e.g., hazardous waste management, occupational safety, consumer affairs, research and development, or regulatory compliance), and the academic community (teaching and research). The center office maintains specific information concerning career placements.

ADMISSIONS

To qualify for graduate study in molecular and environmental toxicology, applicants normally have a bachelor's degree in a biological or physical science, with at least a 3.0 GPA (on a 4.0 scale). The following courses should be completed before entrance to the program: four semesters of chemistry, including at least one of organic (depending on the planned direction within the program, a semester of either analytical chemistry or biochemistry is highly recommended); one semester of math-based physics (a second semester is highly recommended); and three semesters of biology, including coverage of introductory genetics. One or more semesters of calculus is highly recommended. If applicants have not taken one semester of statistics, biometrics, or an equivalent course, and one semester of biochemistry equivalent to the UW–Madison Biochem 501 course, then these courses must be taken as part of the program and will fulfill elective credit requirements for the major. Students with a limited number of deficiencies may be admitted, but must eliminate these deficiencies early in their graduate study. Applicants are required to take the Graduate Record Exam (GRE). International students should also send scores of the Test of English as a Foreign Language (TOEFL), or International English Language Testing System (IELTS).

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

The Molecular & Environmental Toxicology Program does not guarantee funding for incoming or continuing masters students. Masters students may be eligible for research assistantships, teaching assistantships, advanced opportunity fellowships for minority or disadvantaged students, or other funding opportunities. Students are encouraged to contact individual professors in their areas of interest to determine whether support is available for working in that lab.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Students on the non-thesis track will need to take more didactic credits to fulfill the 30 credit minimum requirement. The final examination for degree completion of the degree is a topic / literature review of toxicological relevance.

Students on the research / thesis track will be able to take 990 research credits to fulfill their 30 credit minimum requirement. The final examination for degree completion is the development of a masters thesis based on the research conducted.

Language Requirements Contact the program for information on any language requirements.

REQUIRED COURSES

Code	Title	Credits
Toxicology Core Curriculum		
M&ENVTOX/ MEDICINE/ ONCOLOGY/ PHM SCI/PHMCOL- M/POP HLTH 625	Toxicology I	3
M&ENVTOX/ MEDICINE/PHM SCI/ PHMCOL-M/ POP HLTH 626	Toxicology II	3
M&ENVTOX/ CIV ENGR/ SOIL SCI 631	Toxicants in the Environment: Sources, Distribution, Fate, & Effects	3
M&ENVTOX 699	Special Problems (Directed Study Prelim A)	1-3
OBS&GYN 955/ SURG SCI 812	Responsible Conduct of Research for Biomedical Graduate Students	2
M&ENVTOX 800	Seminar	1

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<http://metc.wisc.edu/trainee-resources/handbook>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

Prior coursework that a student wants to have considered must be presented within the first month of UW–Madison residency. Core courses may be appealed, subject to Graduate Achievement Committee approval. Credit total of core course exemptions will need to be made up as electives. Elective credits may be appealed, subject to Graduate Achievement Committee approval; further electives will not need to be taken.

UW–Madison Undergraduate

Core courses taken as an undergraduate will not need to be retaken, commonly including POP HLTH/M&ENVTOX/MEDICINE/ONCOLOGY/PHM SCI/PHMCOL-M 625 Toxicology I and POP HLTH/M&ENVTOX/MEDICINE/PHM SCI/PHMCOL-M 626 Toxicology II from the Pharm/Tox program and M&ENVTOX/AGRONOMY/ENTOM/F&W ECOL 634 Ecotoxicology: Impacts on Populations, Communities and Ecosystems in the F&W Ecol program. Equivalent number of didactic elective credits from graduate-level courses must be taken to fulfill the previously taken credits/courses.

UW–Madison University Special

Core courses taken as a UW–Madison University Special student will not need to be taken, commonly including M&ENVTOX/MEDICINE/ONCOLOGY/PHM SCI/PHMCOL-M/POP HLTH 625 Toxicology I and M&ENVTOX/MEDICINE/PHM SCI/PHMCOL-M/POP HLTH 626 Toxicology II, as a student prepares for the toxicology program. Equivalent number of didactic elective credits from graduate-level courses must be taken to fulfill the previously taken credits/courses.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

A student's advisory committee is made up of the thesis advisor and at least two further members, based on the needs of the student and mentor.

CREDITS PER TERM ALLOWED

12 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Students are funded by program dollars to do rotations during their first semester. After having settled on a lab, their research mentor will fund the student, either through his/her research grants, program-available TA-ships, or other fellowships.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PROGRAM RESOURCES

PROFESSIONAL DEVELOPMENT

Professional development goes beyond what students do in the classroom and at the bench. It includes an array of skills and knowledge that are not often taught yet are vitally important to furthering one's career.

All students are required to complete the AAAS Individual Development Plan (<http://myidp.sciencecareers.org>) following their first semester to identify strengths in their background, as well as areas where further professional development are recommended. In addition, the program encourages students to make use of the Graduate School's DiscoverPD resource (<https://my.grad.wisc.edu/DiscoverPD>). Finally, students are able to track progress through annual committee meetings, at which time students and advisors are asked to complete an evaluation of progress and have a frank discussion about areas for improvement.

The Molecular & Environmental Toxicology Program currently recommends that students complete three units (hours/activities) per semester from the professional development areas of:

- Discipline-Specific Conceptual Knowledge
- Research Skill Development
- Communication Skills
- Professionalism
- Leadership & Management Skills
- Responsible Conduct of Research (Ethics)

The program will be developing a database of resources that will be available on the program website.

LEARNING OUTCOMES

1. Demonstrate a didactic knowledge of both molecular toxicology and environmental toxicology.
2. Understand that science and research is based on trust— trust between scientists and colleagues, trust between scientists and policy makers, trust between scientists and advisory boards, and trust between scientists and society.
3. Verbally communicate their science and do so in a clear manner for a variety of audiences.

PEOPLE

Faculty: See Faculty (http://metc.wisc.edu/people_category/faculty) on program website.

MOLECULAR AND ENVIRONMENTAL TOXICOLOGY, PH.D.

Molecular and environmental toxicology is a multidisciplinary subject that involves the study of mechanisms of action of environmental toxicants on humans and other organisms and the behavior of these toxicants in the environment. The UW–Madison Molecular and Environmental Toxicology Center's graduate program provides students with expert knowledge in at least one specialty plus a broad understanding of other specialties that contribute to the resolution of environmental toxicology problems. The center is sponsored by the School of Medicine and Public Health as well as the College of Agricultural and Life Sciences, the School of Veterinary Medicine and the School of Pharmacy. The center links researchers in numerous academic departments who are working on problems in this area.

An interdisciplinary graduate program leading to the doctor of philosophy or a master of science in molecular and environmental toxicology is offered by the center under the direction of an executive committee composed of faculty affiliated with the center. The program offers two general approaches: mechanisms of pathobiology of chemically induced disease and environmental activities of chemicals. Each approach is subdivided into focal areas including metabolic and genetic toxicology, neurotoxicology, and immunotoxicology; and ecotoxicology, bioremediation, and distribution and assessment of environmental chemicals. All students participate in a core curriculum that addresses these various areas and that is supplemented by other advanced, specialized courses. Students perform research under the guidance of one of the center's graduate faculty members.

Recipients of graduate degrees in molecular and environmental toxicology pursue careers in governmental agencies (policymaking, regulations, standard setting, or research), private industry (e.g., hazardous waste management, occupational safety, consumer affairs, research and development, or regulatory compliance), and the academic community (teaching and research). The center office maintains specific information concerning career placements.

ADMISSIONS

The Molecular & Environmental Toxicology Program's admission deadline is December 1 for consideration matriculation in fall the following year (i.e., December 1, 2017 deadline for a fall 2018 matriculation).

To qualify for graduate study in Molecular and Environmental Toxicology, applicants normally have a bachelor's degree in a biological or physical science, with at least a 3.0 GPA (on a 4.0 scale). The following courses should be completed before entrance to the program: four semesters of chemistry, including at least one of organic (depending on the planned direction within the program, a semester of either analytical chemistry or biochemistry is highly recommended); one semester of math-based physics (a second semester is highly recommended); and three semesters of biology, including coverage of introductory genetics. One or more semesters of calculus is highly recommended. If applicants have not taken one semester of statistics, biometrics, or an equivalent course, and one semester of biochemistry equivalent to the UW–Madison Biochem 501 course, then these courses must be taken as part of the program and will fulfill elective credit requirements for the major. Students with a limited number of deficiencies may be admitted, but must eliminate these deficiencies early in their graduate study. Applicants are required to take the Graduate Record Exam (GRE). International students should also send scores of the Test of English as a Foreign Language (TOEFL), or International English Language Testing System (IELTS).

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Assuming sufficient progress to degree, financial aid is provided to all Ph.D. students, usually in the form of grant-supported research assistantships, institutional fellowships, teaching assistantships or advanced opportunity fellowships for minority or disadvantaged students. Students are encouraged to contact individual professors in their areas of interest to determine whether support is available for working in that lab.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 51 credits

Minimum Residence Credit Requirement 32 credits

Minimum Graduate Coursework Requirement Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Doctoral students are required to take a comprehensive preliminary/oral examination after they have cleared their record of all Incomplete and Progress grades (other than research and thesis). Deposit of the doctoral dissertation in the Graduate School is required.

Language Requirements Contact the program for information on any language requirements.

Doctoral Minor/Breadth Requirements Doctoral students are not required to complete a minor, but may do so if they wish.

REQUIRED COURSES

Code	Title	Credits
Toxicology Core Curriculum		
M&ENVTOX/ MEDICINE/ ONCOLOGY/ PHM SCI/PHMCOL- M/POP HLTH 625	Toxicology I	3
M&ENVTOX/ MEDICINE/PHM SCI/ PHMCOL-M/ POP HLTH 626	Toxicology II	3
M&ENVTOX/ CIV ENGR/ SOIL SCI 631	Toxicants in the Environment: Sources, Distribution, Fate, & Effects	3
M&ENVTOX/ AGRONOMY/ ENTOM/ F&W ECOL 634	Ecotoxicology: Impacts on Populations, Communities and Ecosystems	1
M&ENVTOX 699	Special Problems (Directed Study Prelim A)	1-3
OBS&GYN 955/ SURG SCI 812	Responsible Conduct of Research for Biomedical Graduate Students	2
OBS&GYN 956	Advanced Responsible Conduct of Research for Biomedical Students (following advancement to candidacy)	1
M&ENVTOX 800	Seminar	1
M&ENVTOX 990	Research	1-9

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<http://metc.wisc.edu/trainee-resources/handbook>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

Prior coursework that a student wants to have considered must be presented within the first month of UW–Madison residency. Core courses may be appealed, subject to Graduate Achievement Committee approval. Credit total of core course exemptions will need to be made up as electives. Elective credits may be appealed, subject to Graduate Achievement Committee approval; further electives will not need to be taken.

UW–Madison Undergraduate

Core courses taken as an undergraduate will not need to be retaken, commonly including M&ENVTOX/MEDICINE/ONCOLOGY/PHM SCI/PHMCOL-M/POP HLTH 625 Toxicology I and M&ENVTOX/MEDICINE/PHM SCI/PHMCOL-M/POP HLTH 626 Toxicology II from the Pharm/Tox program and F&W ECOL/AGRONOMY/ENTOM/M&ENVTOX 634 Ecotoxicology: Impacts on Populations, Communities and Ecosystems in the F&W Ecol program. Equivalent number of didactic elective credits from graduate-level courses must be taken to fulfill the previously taken credits/courses.

UW–Madison University Special

Core courses taken as a UW–Madison University Special student will not need to be taken, commonly including M&ENVTOX/MEDICINE/ONCOLOGY/PHM SCI/PHMCOL-M/POP HLTH 625 Toxicology I and M&ENVTOX/MEDICINE/PHM SCI/PHMCOL-M/POP HLTH 626 Toxicology II, as a student prepares for the toxicology program. Equivalent number of didactic elective credits from graduate-level courses must be taken to fulfill the previously taken credits/courses.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies. An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor.

To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor and advisory committee on a regular (annual) basis.

A committee often accomplishes advising for the students in the early stages of their studies.

A student's advisory committee is made up of the thesis advisor and three-five further members, based on the needs of the student and mentor. At least one of the committee members needs to be outside of the advisor's department and at least one of the committee members needs to be outside of the the Molecular & Environmental Toxicology Program. (This member can be one and the same).

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

OTHER

Students are funded by program dollars to do rotations during their first semester. After having settled on a lab, their research mentor will fund the student, either through his/her research grants, program-available TA-ships, or other fellowships.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PROGRAM RESOURCES

PROFESSIONAL DEVELOPMENT

Professional development goes beyond what students do in the classroom and at the bench. It includes an array of skills and knowledge that are not often taught yet are vitally important to furthering one's career.

All students are required to complete the AAAS Individual Development Plan (<http://myidp.sciencecareers.org>) following their first semester to identify strengths in their background, as well as areas where further professional development are recommended. In addition, the program encourages students to make use of the Graduate School's DiscoverPD resource (<https://my.grad.wisc.edu/DiscoverPD>). Finally, students are able to track progress through annual committee meetings, at which time students and advisors are asked to complete an evaluation of progress and have a frank discussion about areas for improvement.

The Molecular & Environmental Toxicology Program currently recommends that students complete three units (hours/activities) per semester from the professional development areas of:

- Discipline-Specific Conceptual Knowledge
- Research Skill Development
- Communication Skills
- Professionalism
- Leadership & Management Skills
- Responsible Conduct of Research (Ethics)

The program will be developing a database of resources that will be available on the program website.

LEARNING OUTCOMES

1. Teach science, engaging audiences and helping them to learn.
2. Demonstrate a didactic knowledge of both molecular toxicology and environmental toxicology.
3. Design future experiments and present them as a proposal, which contains background information, experimental processes, and account for any set-backs.
4. Write for a proper audience, revising and responding to reviewers as appropriate.
5. Verbally communicate their science and do-so in a clear manner for a variety of audiences.
6. Understand that science and research is based on trust - trust between scientists and colleagues, trust between scientists and policy makers, trust between scientists and advisory boards, and trust between scientists and society.

PEOPLE

Faculty: See Faculty (http://metc.wisc.edu/people_category/faculty) on program website.

NEUROSCIENCE, DOCTORAL MINOR

Neuroscience as a discipline is at a vital juncture. Groundbreaking advances such as mapping of the human genome, development of advanced molecular, genetic, and imaging technologies, and novel integrative approaches have expanded knowledge about the workings of the brain as never before. With this increased understanding, neuroscientists now envision significant treatments for numerous diseases, including neurodegenerative diseases, psychiatric illnesses, and developmental and emotional disorders. The doctoral minor in neuroscience is both interdepartmental and interdisciplinary. The course curriculum draws on expertise from faculty who are spread across over 22 departments on campus.

A doctoral minor in neuroscience will be of interest to doctoral students who are interested in augmenting the discipline to their research. The minor emphasizes the core sequence of cell and molecular neuroscience and systems neuroscience as well as a midlevel graduate course in one of the two areas: cell/molecular/developmental or systems/behavior.

ADMISSIONS

Contact Mallory Musolf (musolf@wisc.edu, 608-262-4932).

REQUIREMENTS

Code	Title	Credits
Required		
NTP/ NEURODPT 610	Cellular and Molecular Neuroscience	4
NTP/NEURODPT/ PSYCH 611	Systems Neuroscience	4
Elective		
NTP mid-level course		

Students must receive a grade point average of 3.0 for all required courses to receive the minor.

Once the requirement has been met, please return the completed PhD Minor in Neuroscience Form (https://ntp.wiscweb.wisc.edu/wp-content/uploads/sites/81/2017/03/PhD_Minor_Form.pdf) to the Neuroscience Training Program office for signature by the program director.

ELECTIVES

Cellular/Molecular/Developmental Approved Mid-levels

Code	Title	Credits
BIOCHEM/PHMCOL- M/ZOOLOGY 630	Cellular Signal Transduction Mechanisms	3
B M E/ANATOMY/ MED PHYS/ PHMCOL-M/ PHYSICS/ RADIOL 619	Microscopy of Life	3
NTP/ NEURODPT 629	Molecular and Cellular Mechanisms of Memory	3
NTP 670	Stem Cells and the Central Nervous System	2-3
NTP 675	Special Topics (Molecular Mechanisms of Brain Damage)	2
NTP 675	Special Topics (Reproductive Neuroendocrinology)	1-3
NTP/NEUROL 735	Neurobiology of Disease	2
NTP/ANATOMY/ ZOOLOGY 765	Developmental Neuroscience	3
ZOOLOGY 604	Computer-based Gene and Disease/ Disorder Research Lab	2

Systems/Behavioral/Computational Approved Mid-levels

Code	Title	Credits
B M E 601	Special Topics in Biomedical Engineering (Problem- Based Learning in Clinical Neuroengineering Seminar)	2
CS&D 850	Hearing Science I: Basic Acoustics and Psychoacoustics	3
COMP SCI/B M I/ PSYCH 841	Computational Cognitive Science	3

KINES 713	Neural Basis of Normal and Pathological Movement	3
KINES 721	Neural Basis for Movement	3
KINES 861	Principles of Motor Control and Learning	3
NTP/ NEURODPT 630	Neuronal Mechanisms for Sensation and Memory in Cerebral Cortex	3
NTP 777	Basic Sleep Mechanisms and Sleep Disorders: from Neurobiology to Sleep Medicine	3
NTP 675	Special Topics (Neuroethology)	2
NTP 675	Special Topics (Brain Mapping in Health and Disease: Applications)	3
NTP/MED PHYS 651	Methods for Neuroimaging Research	3
PSYCH 720	Essentials of Cognitive Neuroscience	3
PSYCH 711	Current Topics in Psychology (Cognitive Neuroscience of Attention and Memory)	2-3
PSYCH 711	Current Topics in Psychology (Introduction to Neural Network Modeling of Cognition)	2-3
PSYCH 733	Perceptual and Cognitive Sciences (Perceptual Systems Analysis) ¹	2
PSYCH 733	Perceptual and Cognitive Sciences (Cognitive Neuroscience of Reading and Dyslexia) ¹	2
PSYCH 733	Perceptual and Cognitive Sciences (Knotty Problems in Psycholinguistics) ¹	2
PSYCH 918	Seminar-General Psychology (Visual Perception)	1-3
PSYCH 954	Seminar-Physiological Psychology (Neuropharmacology)	3

¹ Two PSYCH 733 courses (8 weeks each) must be taken to meet the midlevel systems requirement.

NEUROSCIENCE, M.S.

The Neuroscience Training Program (NTP) was established in 1971. Currently, it comprises more than 80 faculty members whose research interests range from molecular neurobiology to integrative systems. The program is designed to prepare students for careers in research and teaching. On average the number of students in the program is approximately 55. The program is best suited for students who are independent and wish to take a direct role in determining their graduate education. Training leads to the Ph.D. degree in neuroscience or the M.D./Ph.D. degree in cooperation with the School of Medicine and Public Health.

The doctoral program of each graduate student in the training program is tailored to meet individual needs. Each student's program is supervised by an advisory committee of five faculty members selected by the student in consultation with the major professor. During the first year students complete three laboratory rotations and take one-semester

courses in molecular/cellular neuroscience and systems neuroscience. Students also take one upper-level course in molecular/cellular and systems neuroscience. Additional advanced courses may be taken to complement individual research interests.

A preliminary examination is required of all Ph.D. degree candidates at the end of the second year of graduate study. The examination consists of two written papers that are presented orally to the student's advisory committee. The first paper is a critical evaluation of a research topic outside the student's major area of interest. The second paper is a thesis research proposal. Additional requirements for the Ph.D. degree are attendance at the weekly neuroscience seminar and completion of one semester of teaching.

The central forum for intellectual exchange in the program is the neuroscience seminar (NTP 900 Neuroscience Seminar: Current Topics in Neurobiology), which meets weekly and is attended by neuroscience students and faculty. During an academic year, members of the program choose six topics in current neuroscience research for consideration. Topics are reviewed intensively in study groups supervised by faculty sponsors. Critical summaries of each topic are then presented by students to participants in the seminar as a series of lectures and discussions. Each three- to four-week topic session concludes with a lecture by an outside invited speaker who is well known for his or her research in the topic area. In the course of every three- to four-year period, most of the major research areas in neuroscience are reviewed in the neuroscience seminar; consequently, students become familiar with the breadth of contemporary neuroscience.

The average time taken by students to complete the Ph.D. degree is five years. The program prepares students for careers primarily in research and teaching in universities and colleges and careers outside of academia. Of the more than 200 students who have earned the Ph.D. degree in the program, more than 95 percent have careers in biomedical science.

NEUROSCIENCE & PUBLIC POLICY PROGRAM

The Neuroscience & Public Policy Program (N&PP) offers three integrated degree tracks with the cooperation of the Neuroscience Training Program, the La Follette School of Public Affairs and the University of Wisconsin-Madison Law School. The N&PP is based on two strongly held beliefs: first, that sound science and technology policy and law are essential for the well-being of societies; second, that a step toward ensuring such policy is to train future scientists in the making of public policy or the law and prepare them to participate in bringing science and society closer together.

The program offers students the opportunity to earn a Ph.D. degree in neuroscience as well as a master of public affairs (MPA), a master of international public affairs (MIPA), or juris doctorate (J.D.). In each of the degree tracks, the program brings together faculty from neuroscience, public policy, bioethics, sociology, and law and other related fields to train research neuroscientists who will be qualified to help shape public policy or the law. The cross-disciplinary training combines didactic and laboratory research training in neuroscience with a classroom-based and hands-on education in public policy or the law.

For more information about the double and dual degree tracks offered through the neuroscience & public policy program including admissions

and program requirements please visit the program website (<https://npp.wisc.edu>).

ADMISSIONS

This master's program is offered for work leading to the Ph.D. Students may not apply directly for the master's, and should instead see the admissions information for the Ph.D. (p. 1066)

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Each student receives a stipend that covers tuition, fees, living costs, and health insurance and is guaranteed for five years if progress is satisfactory. Financial support is provided from the program's NIH training grant, fellowships, and faculty research grants. Limited support is available for international students.

Our program also works with students to submit proposals for fellowships. For more information on those funding opportunities please visit our website (<https://ntp.neuroscience.wisc.edu/funding-opportunities>).

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum 30 credits
Credit Requirement

Minimum 16 credits
Residence Credit Requirement

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Submit a manuscript suitable for publication or the equivalent of part two of the preliminary exam to their advisory committee for approval. Approval should occur once the student has presented either option at their advisory committee meeting.

Language Requirements No language requirements.

REQUIRED COURSES

Code	Title	Credits
Required		
NTP 900	Neuroscience Seminar: Current Topics in Neurobiology	2
Electives		
Complete 30 credits, 15 of which must be completed in courses numbered 700 or higher or in one of the following:		
NTP/NEURODPT 610	Cellular and Molecular Neuroscience	4
NTP/NEURODPT/PSYCH 611	Systems Neuroscience	4
NTP/NEURODPT 629	Molecular and Cellular Mechanisms of Memory	3
NTP/NEURODPT 630	Neuronal Mechanisms for Sensation and Memory in Cerebral Cortex	3
NTP 670	Stem Cells and the Central Nervous System	2-3

NTP 675	Special Topics	1-3
NTP/NEUROL 735	Neurobiology of Disease	2
NTP/ANATOMY/ZOOLOGY 765	Developmental Neuroscience	3
NTP 777	Basic Sleep Mechanisms and Sleep Disorders: from Neurobiology to Sleep Medicine	3

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://ntp.neuroscience.wisc.edu/handbook>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval credits from former graduate institutions may be allowed to count toward degree. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW-Madison Undergraduate

With program approval credits from graduate-level courses (numbered 300 or above) taken as an undergraduate at UW-Madison may be allowed to count toward degree up to 7 credits. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW-Madison University Special

With program approval, coursework numbered 300 or above taken as a UW-Madison Special student may be allowed to count toward the degree up to 15 credits. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

An advisory committee of five or more tenure-track or tenured faculty members will oversee your graduate education. During the first year, before an advisory committee has been formed and a major professor selected, the First-Year Advisory Committee will serve as your advisor. The First-Year Advisory Committee will help

you select courses, laboratory rotations, and your major professor, and they can assist you with other issues that may arise during the first year.

After you have chosen a lab, your major professor will help you in choosing the other members of your advisory committee. Choose this committee carefully, taking time to discuss potential members with faculty and other students. Selection of a major professor and the additional four members of the advisory committee should be completed by the end of March of the first year. **At least five** members of the committee must be tenure-track or tenured professors at UW–Madison. At least three members of the committee should be members of the program. To ensure that advisory committees reflect a broad perspective, at least three different areas of neuroscience or approaches to neuroscience must be represented on the committee. Examples of different areas include behavior/cognition, development, synaptic transmission/membrane excitability. Examples of different approaches include electrophysiology, genetic/model organisms, biochemistry/pharmacology, human brain imaging, stem cells. The student is responsible for describing how the proposed committee represents at least three areas/approaches. The composition of each student's advisory committee will be reviewed and must be approved by the First-Year Advisory Committee. All changes to the makeup of your advisory committee, must be approved by the First-Year Advisory Committee. N&PP students are required to have at least one member of the N&PP Steering Committee represented on their thesis advisory committee.

In order to have your committee approved you must fill out and turn in the NTP Advisory Committee Approval Form (<https://ntp.wiscweb.wisc.edu/wp-content/uploads/sites/81/2017/02/NTP-ADVISORY-COMMITTEE-APPROVAL-FORM.doc>), which is found on the NTP website (<https://ntp.neuroscience.wisc.edu/forms>). After you return the form to the NTP office, the First-Year Advisory Committee will review your proposed committee and approve your committee or make suggestions for additional members to ensure a broad perspective.

The advisory committee will meet with you once each semester before you become a dissertator (during the first four or five academic semesters) and once each year after you become a dissertator to review your progress. At least four members of the committee must be present at each meeting. Your major professor chairs the advisory committee and will write a report (<https://ntp.wiscweb.wisc.edu/wp-content/uploads/sites/81/2017/10/Advisory-Committee-Report-12.12.14.doc>) that summarizes each meeting. You should review each report and discuss it with your major professor. Every report **must** be signed by you and your major professor and becomes part of your permanent record. The summary reports are used by the steering committee, program faculty, and director to monitor progress. If you believe the report does not describe your progress accurately or is in error in some other respect, you should bring these concerns to the attention of your major professor immediately. If a satisfactory resolution cannot be achieved, you should inform the First-Year Advisory Committee, which will assist you in deciding whether to ask for a review by the steering committee. The First-Year Advisory Committee can handle any issues or problems that arise after the first year and are not resolved by your advisory committee. An Advisory Committee Report form (<https://ntp.wiscweb.wisc.edu/wp-content/uploads/sites/81/2017/10/Advisory-Committee-Report-12.12.14.doc>) is shown in the appendix of the Handbook

(<https://ntp.wiscweb.wisc.edu/handbook>) and can be found on the NTP website (<https://ntp.neuroscience.wisc.edu/forms>).

Once a committee is formed you are required to have a committee meeting every semester.

For each meeting you have there is a required form you must fill out to find those forms see this link (<https://ntp.neuroscience.wisc.edu/forms>).

CREDITS PER TERM ALLOWED

12 credits

TIME CONSTRAINTS

Master's degree students who are absent for five or more years will not be given credit for prior work.

OTHER

All admitted students are funded and receive a stipend. The stipend rate is set by the program.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Develop the knowledge base necessary for a career as an independent, professional scientist.
2. Receive training in responsible conduct of research, and will learn and foster principles of ethical and professional conduct.

PEOPLE

Faculty: Professor Mary Halloran (director). For a comprehensive faculty list, visit the program website (<https://ntp.neuroscience.wisc.edu/faculty-trainers>).

NEUROSCIENCE, PH.D.

The Neuroscience Training Program (NTP) was established in 1971. Currently, it comprises over 80 faculty members whose research interests range from molecular neurobiology to integrative systems. The program is designed to prepare students for careers in research and teaching. On average the number of students in the program is approximately 55. The program is best suited for students who are independent and wish to take a direct role in determining their graduate education. Training leads to the Ph.D. degree in neuroscience or the M.D./Ph.D. degree in cooperation with the School of Medicine and Public Health.

The doctoral program of each graduate student in the training program is tailored to meet individual needs. Each student's program is supervised by an advisory committee of five faculty members selected by the student in consultation with the major professor. During the first year students complete three laboratory rotations and take one-semester

courses in molecular/cellular neuroscience and systems neuroscience. Students also take one upper-level course in molecular/cellular and systems neuroscience. Additional advanced courses may be taken to complement individual research interests.

A preliminary examination is required of all Ph.D. degree candidates at the end of the second year of graduate study. The examination consists of two written papers that are presented orally to the student's advisory committee. The first paper is a critical evaluation of a research topic outside the student's major area of interest. The second paper is a thesis research proposal. Additional requirements for the Ph.D. degree are attendance at the weekly neuroscience seminar and completion of one semester of teaching.

The central forum for intellectual exchange in the program is the neuroscience seminar (NTP 900 Neuroscience Seminar: Current Topics in Neurobiology), which meets weekly and is attended by neuroscience students and faculty. During an academic year, members of the program choose six topics in current neuroscience research for consideration. Topics are reviewed intensively in study groups supervised by faculty sponsors. Critical summaries of each topic are then presented by students to participants in the seminar as a series of lectures and discussions. Each three- to four-week topic session concludes with a lecture by an outside invited speaker who is well known for his or her research in the topic area. In the course of every three- to four-year period, most of the major research areas in neuroscience are reviewed in the neuroscience seminar; consequently, students become familiar with the breadth of contemporary neuroscience.

The average time taken by students to complete the Ph.D. degree is five years. The program prepares students for careers primarily in research and teaching in universities and colleges and careers outside of academia. Of the more than 200 students who have earned the Ph.D. degree in the program, more than 95 percent have careers in biomedical science.

NEUROSCIENCE & PUBLIC POLICY PROGRAM

The Neuroscience & Public Policy Program (N&PP) offers three integrated degree tracks with the cooperation of the Neuroscience Training Program, the La Follette School of Public Affairs and the University of Wisconsin-Madison Law School. The N&PP is based on two strongly held beliefs: first, that sound science and technology policy and law are essential for the well-being of societies; second, that a step toward ensuring such policy is to train future scientists in the making of public policy or the law and prepare them to participate in bringing science and society closer together.

The program offers students the opportunity to earn a Ph.D. degree in neuroscience as well as a master of public affairs (MPA), a master of international public affairs (MIPA), or juris doctorate (J.D.). In each of the degree tracks, the program brings together faculty from neuroscience, public policy, bioethics, sociology, and law and other related fields to train research neuroscientists who will be qualified to help shape public policy or the law. The cross-disciplinary training combines didactic and laboratory research training in neuroscience with a classroom-based and hands-on education in public policy or the law.

For more information about the double and dual degree tracks offered through the neuroscience & public policy program including admissions

and program requirements please visit the program website (<https://npp.wisc.edu>).

ADMISSIONS

The admissions deadline for the Neuroscience Training Program is December 1; no exceptions will be made for late materials so we strongly encourage prospective applicants to send in required materials as early as possible. Admission to the program is based mainly on demonstrated ability and interest in science and mathematics. The minimum course prerequisites are mathematics through calculus and a year each of chemistry, physics, and biology. All course prerequisites must be taken at the college level. Applicants for admission must submit all undergraduate and graduate transcripts directly to the neuroscience training program, three letters of recommendation, scores from the GRE general test, and a statement of research interests and goals. Prior laboratory research experience, though not required, is a component of successful applications.

For more information about Neuroscience Training Program admissions, visit the program website (<https://ntp.neuroscience.wisc.edu/admissions-requirements>).

Prospective international students should visit the program website (<https://ntp.neuroscience.wisc.edu/international-applicants>) for more information related to international admissions.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Each student receives a stipend that covers tuition, fees, living costs, and health insurance and is guaranteed for five years if progress is satisfactory. Financial support is provided from the Program's NIH training grant, fellowships, and faculty research grants. Limited support is available for international students.

Our program also works with students to submit proposals for fellowships. For more information on those funding opportunities please visit our website (<https://ntp.neuroscience.wisc.edu/funding-opportunities>).

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 51 credits

Minimum Residence Credit Requirement 32 credits

Minimum Graduate Coursework Requirement Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Candidates must meet with their advisory committee once per semester until they become a dissertator and then once per year thereafter.

The preliminary examination consists of two papers: a dissertation proposal, and a critical research paper unrelated to the proposal. The preliminary examination should be completed by the end of the second summer of graduate study. Students who fail one or both parts of the preliminary examination may retake the examination within two months. Failure to pass the examination the second time will result in dismissal from the program.

The final dissertation must be submitted to the advisory committee and an oral defense of the thesis must be given. The thesis defense consists of a public presentation of the thesis followed by a closed meeting with the advisory committee. Deposit of the doctoral dissertation in the Graduate School is required.

Language Requirements No language requirements.

Doctoral Minor/Breadth Requirements Completion of a doctoral minor is not required of students in the NTP doctoral program.

REQUIRED COURSES

Code	Title	Credits
Core Courses		10
NTP 900	Neuroscience Seminar: Current Topics in Neurobiology ¹	
NTP/NEURODPT 610	Cellular and Molecular Neuroscience	
NTP/NEURODPT/PSYCH 611	Systems Neuroscience	
NTP 700	Professional Development for Biomedical Graduate Students	
NTP 990	Research and Thesis ¹	
One Intermediate/Advanced Course in Molecular/Cellular/Developmental Neuroscience:		3-4
BIOCHEM/PHMCOL-M/ZOOLOGY 630	Cellular Signal Transduction Mechanisms	
B M E/ANATOMY/MED PHYS/PHMCOL-M/PHYSICS/RADIOL 619	Microscopy of Life	
NTP/NEURODPT 629	Molecular and Cellular Mechanisms of Memory	
NTP/NEUROL 735	Neurobiology of Disease	
NTP 670	Stem Cells and the Central Nervous System	

NTP 675	Special Topics	
NTP/ANATOMY/ ZOOLOGY 765	Developmental Neuroscience	
ZOOLOGY 604	Computer-based Gene and Disease/ Disorder Research Lab	
One Intermediate/Advanced Course in Systems/ Behavioral Neuroscience		2-4
B M E 601	Special Topics in Biomedical Engineering	
CS&D 850	Hearing Science I: Basic Acoustics and Psychoacoustics	
COMP SCI/B M I/ PSYCH 841	Computational Cognitive Science	
KINES 713	Neural Basis of Normal and Pathological Movement	
KINES 721	Neural Basis for Movement	
KINES 861	Principles of Motor Control and Learning	
NTP/ NEURODPT 630	Neuronal Mechanisms for Sensation and Memory in Cerebral Cortex	
NTP 777	Basic Sleep Mechanisms and Sleep Disorders: from Neurobiology to Sleep Medicine	
NTP 675	Special Topics	
NTP/ MED PHYS 651	Methods for Neuroimaging Research	
PSYCH 711	Current Topics in Psychology ²	
PSYCH 733	Perceptual and Cognitive Sciences ³	
PSYCH 954	Seminar-Physiological Psychology	
PSYCH 918	Seminar-General Psychology	

Other advanced courses as recommended by the advisory committee.

Full-time registration is required of all students in the program during the fall and spring semesters. The Graduate School considers full-time registration for students who are not dissertators (please see below) to be 8–15 graduate-level credits (level 300 and above, no audits or pass-fail) during each of the fall and spring semesters. Though the maximum number of credits is 15, we strongly encourage students to enroll for a maximum of 12 credits. In the summer, students in the program who are not dissertators may register for 2 credits during the 8-week summer session, which is not considered full-time registration. If you decide to register for 2 research credits, you are responsible for knowing about other obligations that may be affected by part-time registration in the summer, such as visa regulations or those of certain funding agencies that may require continuous full-time registration for the calendar year (see Graduate School Academic Guidelines for additional caveats). You are eligible to become a dissertator after you have passed the program's preliminary examination and have met the Graduate School's residency requirements. Dissertators register for 3 credits each semester including the summer. Usually dissertators register for 2 credits of Neuroscience 990 Research and Thesis and 1 credit of the Neuroscience Seminar Neuroscience Training Program fall and spring semesters, and 3 credits of Research and Thesis during the 8-week summer session. It is advantageous to all concerned for you to become a dissertator as soon as possible since tuition payments for dissertators are much lower. If you are a dissertator and you wish to register for other courses, you may be able to. Please contact the program office for additional details.

When students enroll in NTP 990, they should plan to enroll for the appropriate number of credits to reach the minimum required credits each semester to have full-time student status.

- ¹ Students in our program are expected to be enrolled in this course each semester it is offered until they graduate.
- ² PSYCH 711 is a special topics course. The following topics under this course listing are approved to take and will count as a midlevel:
 - Cognitive Neuroscience of Attention and Memory
 - Introduction to Neural Network Modeling of Cognition
- ³ *Two PSYCH 733 courses (8 weeks each) must be taken to meet the mid-level systems requirement. The following course topics are approved:
 - Cognitive Neuroscience of Reading and Dyslexia
 - Knotty Problems in Psycholinguistics

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the

degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://ntp.neuroscience.wisc.edu/handbook>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval credits from former graduate institutions may be allowed to count toward degree. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

With program approval credits from graduate level courses (numbered 300 or above) taken as an undergraduate at UW–Madison may be allowed to count toward degree up to 7 credits. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison University Special

With program approval, coursework numbered 300 or above taken as a UW–Madison Special student may be allowed to count toward the degree up to 15 credits. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

PROBATION

Failure to pass the preliminary examination before the start of the spring semester of the third year will result in being placed on probation. Two consecutive semesters of enrollment on probation precludes continuation in the program.

ADVISOR / COMMITTEE

An advisory committee of five or more tenure-track or tenured faculty members will oversee your graduate education. During the first year, before an advisory committee has been formed and a major professor selected, the First-Year Advisory Committee will serve as your advisor. The First-Year Advisory Committee will help you select courses, laboratory rotations, and your major professor, and they can assist you with other issues that may arise during the first year.

After you have chosen a lab, your major professor will help you in choosing the other members of your advisory committee. Choose this committee carefully, taking time to discuss potential members with faculty and other students. Selection of a major professor and the additional four members of the advisory committee should be completed by the end of March of the first year. **At least five** members of the committee must be tenure-track or tenured professors at UW–Madison. At least three members of the committee should be members of the program. To ensure that advisory committees reflect a broad perspective, at least three different areas of neuroscience or approaches to neuroscience must be represented on the committee. Examples of different areas include behavior/cognition, development, synaptic transmission/membrane excitability. Examples of different approaches include

electrophysiology, genetic/model organisms, biochemistry/pharmacology, human brain imaging, stem cells. The student is responsible for describing how the proposed committee represents at least three areas/approaches. The composition of each student's advisory committee will be reviewed and must be approved by the First-Year Advisory Committee. All changes to the makeup of your advisory committee, must be approved by the First-Year Advisory Committee. N&PP students are required to have at least one member of the N&PP Steering Committee represented on their thesis advisory committee.

In order to have your committee approved you must fill out and turn in the NTP Advisory Committee Approval Form (<https://ntp.wiscweb.wisc.edu/wp-content/uploads/sites/81/2017/02/NTP-ADVISORY-COMMITTEE-APPROVAL-FORM.doc>) which is found on the NTP website (<https://ntp.neuroscience.wisc.edu/forms>). After you return the form to the NTP office, the First-Year Advisory Committee will review your proposed committee and approve your committee or make suggestions for additional members to ensure a broad perspective.

The advisory committee will meet with you once each semester before you become a dissertator (during the first four or five academic semesters) and once each year after you become a dissertator to review your progress. At least four members of the committee must be present at each meeting. Your major professor chairs the advisory committee and will write a report (<https://ntp.wiscweb.wisc.edu/wp-content/uploads/sites/81/2017/10/Advisory-Committee-Report-12.12.14.doc>) that summarizes each meeting. You should review each report and discuss it with your major professor. Every report **must** be signed by you and your major professor and becomes part of your permanent record. The summary reports are used by the steering committee, program faculty, and director to monitor progress. If you believe the report does not describe your progress accurately or is in error in some other respect, you should bring these concerns to the attention of your major professor immediately. If a satisfactory resolution cannot be achieved, you should inform the First-Year Advisory Committee, which will assist you in deciding whether to ask for a review by the steering committee. The First-Year Advisory Committee can handle any issues or problems that arise after the first year and are not resolved by your advisory committee. An Advisory Committee Report form (<https://ntp.wiscweb.wisc.edu/wp-content/uploads/sites/81/2017/10/Advisory-Committee-Report-12.12.14.doc>) is shown in the appendix of the Handbook (<https://ntp.wiscweb.wisc.edu/handbook>) and can be found on the NTP website (<https://ntp.neuroscience.wisc.edu/forms>).

Once a committee is formed you are required to have a committee meeting every semester until you become a dissertator. As a dissertator you are required to have one meeting per year until your thesis defense.

For each meeting you have there is a required form you must fill out to find those forms see this link (<https://ntp.neuroscience.wisc.edu/forms>).

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

The final dissertation must be completed by the end of the fifth academic year. If the dissertation is not completed by the end of the

summer following the sixth academic year, the student's advisory committee must meet with the steering committee to present a written statement explaining why the dissertation has not been completed.

OTHER

All admitted students are funded and receive a stipend. The stipend rate is set by the program.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. (Knowledge) Develop the knowledge base necessary for a career as an independent, professional scientist.
2. (Research) Develop and complete original research that advances their specific area of neuroscience.
3. (Communication) Learn to effectively communicate to diverse audiences through writing, oral presentations, and discussions.
4. (Teaching) Learn teaching and mentoring skills necessary for future scientific careers.
5. (Professional and Ethical Conduct) Receive training in responsible conduct of research, and will learn and foster principles of ethical and professional conduct.
6. (Career Preparation) Provided with diverse training that will prepare them for a range of flexible and sustainable careers (e.g., academia, industry, government, science policy and administration, science commerce, science writing, law, and science education and outreach at all levels).

PEOPLE

Faculty: Professor Mary Halloran (director). For a comprehensive faculty list, visit the program website (<https://ntp.neuroscience.wisc.edu/faculty-trainers>).

PHYSIOLOGY, DOCTORAL MINOR

Doctoral minors are open to all students who are already members of a Ph.D. program. Students interested in a minor in Physiology are encouraged to contact Shelley Maxted, the program coordinator, matedl@wisc.edu. Students take at least 9 credits of Physiology coursework (<http://guide.wisc.edu/courses/physiol>).

PEOPLE

See the Physiology program webpage (<https://pgtp.wisc.edu/faculty>) for information on faculty.

PHYSIOLOGY, M.S.

The physiology graduate training program is interdisciplinary in its approach to scientific research, reflecting the breadth of the discipline of physiology. Powerful new tools in modern biology make it possible to link the cellular and molecular with integrative levels in physiological systems, the cardiovascular, respiratory, renal, endocrine, neurophysiological, gastrointestinal, musculoskeletal, and metabolic systems. The program provides doctoral training in mechanistic studies that use these new tools to study the functions of molecules, cells, tissues, and organ systems in preparation for careers in biomedical research, biotechnology, and academic teaching. Students learn through lecture courses, seminar courses, seminars by speakers from campus and from other institutions, journal clubs and, most important, from their research mentors. Students are encouraged to interact with other training programs and research centers to broaden their knowledge and experience. Gaining expertise in public speaking is an important component of the program.

ADMISSIONS

This master's program is offered for work leading to the Ph.D. Students may not apply directly for the master's, and should instead see the admissions information for the Ph.D. (p. 1073)

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Financial aid is provided to all students, usually in the form of grant-supported research assistantships, institutional fellowships, teaching assistantships, or advanced opportunity fellowships for minority or disadvantaged students. Students are encouraged to contact individual professors in their areas of interest to determine whether support is available for working in that lab.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Contact the program for information on required assessments and examinations.

Language Requirements Contact the program for information on any language requirements.

REQUIRED COURSES

Physiology core curriculum includes:

Code	Title	Credits
PHYSIOL 901	Seminar	1
NTP/ NEURODPT 610	Cellular and Molecular Neuroscience	4
ANAT&PHY 435	Fundamentals of Human Physiology (or equivalent)	5
STAT/B M I 541 or STAT/ F&W ECOL/ HORT 571	Introduction to Biostatistics Statistical Methods for Bioscience I	3-4
OBS&GYN 955	Responsible Conduct of Research for Biomedical Graduate Students	2

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://pgtp.wisc.edu/handbook-forms>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

Courses taken that fulfill the equivalent requirements may be considered to exempt a class: If demonstrated didactic knowledge of physiology, then ANAT&PHY 435 Fundamentals of Human Physiology may be exempted. If considerable background in neuroscience, then NTP/NEURODPT 610 Cellular and Molecular Neuroscience may be exempted. Statistics courses may be considered by the student's advisory committee for exemption; however, students are still strongly encouraged to participate. These exemptions do not waive a student from any credits, merely from taking the courses. The student will still need to accumulate 30 credits for the degree.

UW-Madison Undergraduate

Courses taken that fulfill the equivalent requirements may be considered to exempt a class: If demonstrated didactic knowledge of physiology, then ANAT&PHY 435 may be exempted. If considerable background in neuroscience, then NTP/NEURODPT 610 may be exempted. Statistics courses may be considered by the student's advisory committee for exemption; however, students are still strongly encouraged to participate. These exemptions do not waive a student from any credits, merely from taking the courses. The student will still need to accumulate 30 credits for the degree.

UW-Madison University Special

Courses taken that fulfill the equivalent requirements may be considered to exempt a class: If demonstrated didactic knowledge of physiology, then ANAT&PHY 435 may be

exempted. If considerable background in neuroscience, then NTP/NEURODPT 610 may be exempted. Statistics courses may be considered by the student's advisory committee for exemption; however, students are still strongly encouraged to participate. These exemptions do not waive a student from any credits, merely from taking the courses. The student will still need to accumulate 30 credits for the degree.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies. An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor.

To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Students are funded by program dollars to do rotations during their first semester. After having settled on a lab, their research mentor will fund the student, either through his/her research grants, program-available TA-ships, or other fellowships.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Teach physiology, engaging audiences and helping them to learn.

2. Demonstrate a didactic knowledge of physiology.

3. Describe past science, propose future experiments, and defend their ideas to peers in a proposal format.

4. Understand that science and research is based on trust— trust between scientists and colleagues, trust between scientists and policy makers, trust between scientists and advisory boards, and trust between scientists and society.

5. Communicate their science verbally and do so in a clear manner for a variety of audiences.

PEOPLE

Faculty: See faculty list (<http://pgtp.wisc.edu/faculty>) on the program website.

PHYSIOLOGY, PH.D.

The physiology graduate training program is interdisciplinary in its approach to scientific research, reflecting the breadth of the discipline of physiology. Powerful new tools in modern biology make it possible to link the cellular and molecular with integrative levels in physiological systems, the cardiovascular, respiratory, renal, endocrine, neurophysiological, gastrointestinal, musculoskeletal, and metabolic systems. The program provides doctoral training in mechanistic studies that use these new tools to study the functions of molecules, cells, tissues, and organ systems in preparation for careers in biomedical research, biotechnology, and academic teaching. Students learn through lecture courses, seminar courses, seminars by speakers from campus and from other institutions, journal clubs and, most important, from their research mentors. Students are encouraged to interact with other training programs and research centers to broaden their knowledge and experience. Gaining expertise in public speaking is an important component of the program.

ADMISSIONS

Given the interdisciplinary nature of physiology, students from a variety of undergraduate backgrounds qualify for admission to the program. Entering students generally have degrees in biology, chemistry, physics or engineering, and have usually taken courses in biology, biochemistry, chemistry, mathematics, and physics. Students may be admitted to the program without having completed one or more of these courses but will be required to take them in their first year of graduate school. In addition to the online application, applicants for admission should submit official transcripts from each previous undergraduate and postgraduate institution; three letters of recommendation; a one-page personal statement describing research experience and personal goals, and indicating faculty with research activities of interest to the student. Graduate Record Exam (GRE) scores are requested from all students. International students should also send scores of the Test of English as a Foreign Language (TOEFL), or International English Language Testing System (IELTS). Application deadline is December 1—we do not offer spring or summer admission.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements

of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Financial aid is provided to all students, usually in the form of grant-supported research assistantships, institutional fellowships, teaching assistantships, or advanced opportunity fellowships for minority or disadvantaged students. Students are encouraged to contact individual professors in their areas of interest to determine whether support is available for working in that lab.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement	51 credits
Minimum Residence Credit Requirement	32 credits
Minimum Graduate Coursework Requirement	Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle).
Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.
Assessments and Examinations	Doctoral students are required to take a comprehensive preliminary/oral examination after they have cleared their record of all Incomplete and Progress grades (other than research and thesis). Deposit of the doctoral dissertation in the Graduate School is required.
Language Requirements	Contact the program for information on any language requirements.
Doctoral Minor/Breadth Requirements	All doctoral students are required to complete a minor.

REQUIRED COURSES

Physiology core curriculum includes:

Code	Title	Credits
PHYSIOL 901	Seminar	1
NTP/ NEURODPT 610	Cellular and Molecular Neuroscience	4
ANAT&PHY 435	Fundamentals of Human Physiology (or equivalent)	5
STAT/B M I 541 or STAT/ F&W ECOL/ HORT 571	Introduction to Biostatistics Statistical Methods for Bioscience I	3-4
OBS&GYN 955	Responsible Conduct of Research for Biomedical Graduate Students	2

Electives may be determined according to student interest and program director approval.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding

general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://pgtp.wisc.edu/handbook-forms>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

Courses taken that fulfill the equivalent requirements may be considered to exempt a class: If demonstrated didactic knowledge of physiology, then ANAT&PHY 435 Fundamentals of Human Physiology may be exempted. If considerable background in neuroscience, then NTP/NEURODPT 610 Cellular and Molecular Neuroscience may be exempted. Statistics courses may be considered by the student's advisory committee for exemption; however, students are still strongly encouraged to participate. These exemptions do not waive a student from any credits, merely from taking the courses. The student will still need to accumulate 51 credits for the degree.

UW-Madison Undergraduate

Courses taken that fulfill the equivalent requirements may be considered to exempt a class: If demonstrated didactic knowledge of physiology, then ANAT&PHY 435 may be exempted. If considerable background in neuroscience, then NTP/NEURODPT 610 may be exempted. Statistics courses may be considered by the student's advisory committee for exemption; however, students are still strongly encouraged to participate. These exemptions do not waive a student from any credits, merely from taking the courses. The student will still need to accumulate 51 credits for the degree.

UW-Madison University Special

Courses taken that fulfill the equivalent requirements may be considered to exempt a class: If demonstrated didactic knowledge of physiology, then ANAT&PHY 435 may be exempted. If considerable background in neuroscience, then NTP/NEURODPT 610 may be exempted. Statistics courses may be considered by the student's advisory committee for exemption; however, students are still strongly encouraged to participate. These exemptions do not waive a student from any credits, merely from taking the courses. The student will still need to accumulate 51 credits for the degree.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies. An advisor generally serves as the thesis advisor. In many

cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor.

To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

OTHER

Students are funded by program dollars to do rotations during their first semester. After having settled on a lab, their research mentor will fund the student, either through his/her research grants, program-available TA-ships, or other fellowships.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Teach physiology, engaging audiences and helping them to learn.
2. Demonstrate a didactic knowledge of physiology.
3. Describe past science, propose future experiments, and defend their ideas to peers in a proposal format.
4. Understand that science and research is based on trust—trust between scientists and colleagues, trust between scientists and policy makers, trust between scientists and advisory boards, and trust between scientists and society.
5. Write for a proper audience, revising and responding to reviewers as appropriate.
6. Communicate their science verbally and do so in a clear manner for a variety of audiences.

PEOPLE

Faculty: See faculty list (<http://pgtp.wisc.edu/faculty>) on the program website.

NURSING—SCHOOL-WIDE

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Nurse Educator, Graduate/Professional Certificate (p. 1076)
- Nursing Practice, DNP (p. 1077)
- Nursing, Doctoral Minor (p. 1082)
- Nursing, M.S. (p. 1082)
- Nursing, Ph.D. (p. 1085)

PEOPLE

Faculty: Professors May (dean), Bowers, Brennan, Kwekkeboom, Lauver, Oakley, Zahner; Associate Professors Tluczek, Ward; Assistant Professors Bratzke, Gretebeck, King, Roberts, Steege, Torres, Yoon

NURSE EDUCATOR, GRADUATE/PROFESSIONAL CERTIFICATE

Those who complete the certificate are recognized for their specialized skills, knowledge, and abilities in the nurse educator role. The certification of nurse educators provides a means for faculty members to demonstrate their expertise in the science of nursing education. Obtaining the certificate signifies a commitment to professional development and to continuously improve the methods of teaching needed in the field of nursing.

Student who complete the certificate are eligible to sit for the National League for Nursing (NLN) Certified Nurse Educator Examination. NLN recognizes the nurse educator role as a specialty area of practice.

This program offers two pathways:

1. Nurse Educator Certificate Program for students currently enrolled in a nursing doctoral program (DNP (p. 1077) or Ph.D. (p. 1085))
2. Nurse Educator Capstone Certificate (<http://guide.wisc.edu/nondegree/capstone/nurse-educator-capstone-certificate>) Program for master's- or doctoral-prepared nurses who are not currently enrolled in a nursing doctoral program

ADMISSIONS

ADMISSION TIMELINE

Students are admitted to the certificate to begin in the spring session only. The important dates are:

- Application Opens: Early September

- Application Deadline: November 1. All materials (including transcripts) must be received by the deadline.
- Review of Applications: November
- Notification of Decision: Early December

APPLICATION PROCESS

If you are in a doctoral program at the University of Wisconsin—Madison, communicate your interest in the certificate to your program director or graduate academic services coordinator. Then download the application form (<http://guide.wisc.edu/graduate/nursing-school-wide/nurse-educator-graduate-professional-certificate/chrome-extension://oemmdcbldboiebfnladdacbfmadadm/https://nursing.wisc.edu/wp-content/uploads/2017/02/necp-application-form.pdf>), complete it, and submit it to the address below.

Submit All Materials To:

NECP Coordinator/Graduate Admissions
UW—Madison School of Nursing
Suite 1100 Cooper Hall
701 Highland Avenue
Madison WI 53705

REQUIREMENTS

To be eligible to complete the Nurse Educator Certificate, students must have:

1. A master's degree from an accredited nursing program or be currently enrolled in a DNP or Ph.D. in nursing program,
2. An RN license,
3. An M.S. GPA of at least 3.0

The certificate is a 9-credit program of study that includes graduate-level foundational and practicum work. The three required courses cover the foundation of teaching/learning and curriculum in nursing education, with an emphasis on evidence-based teaching. Courses are delivered in a blended learning format—coursework is completed primarily online, with regularly scheduled class sessions on campus.

The program can be completed in one year, January–December, during a spring, summer and fall terms.

The curriculum and requirements for the Nurse Educator Certificate Program are prescribed; few exceptions or course substitutions permitted. Exceptions must be approved by the certificate program director.

The three courses are:

Code	Title	Credits
NURSING 785	Foundations of Curriculum Development and Evaluation in Nursing Education	3
NURSING 786	Foundations of Teaching and Learning in Nursing	3
NURSING 787	Nursing Education Practicum	1-3

NURSING PRACTICE, DNP

The School of Nursing Doctor of Nursing Practice (DNP) program prepares nurses for leadership roles as advanced practice nurses (clinical nurse specialists or nurse practitioners) who provide direct care and lead practice development and evaluation. Students in the DNP program choose from three population foci: adult/gerontology (acute care or primary care), pediatrics, or psychiatric mental health. Those interested in dual preparation as an advanced practice nurse and nurse educator may add a nursing education focus.

The program is available for nurses with a baccalaureate degree in nursing (post-B.S. option) and nurses with a master's degree in nursing practice (post-M.S. option). The post-B.S. option can be completed in three years of full-time study or five years on a part-time basis and requires a minimum of 71 credits (68 credits in the program plan plus 3-credit graduate statistics requirement). The post-M.S. option is designed to be completed in three years on a part-time basis and requires a minimum of 51 credits. Up to 18 credits will be accepted from the student's M.S. degree; a minimum of 32 credits must be completed as a graduate student on the UW–Madison campus. Students admitted to either option follow the course sequence designated in the program plan and progress as a group.

The program of study features a combination of formal course work, clinical practice, and scholarly inquiry. Most coursework is delivered in a hybrid format, utilizing both required in-person class sessions and distance learning technologies.

ADMISSIONS

Admission requirements for the DNP program (post-baccalaureate) are:

- Graduation from an accredited baccalaureate program in nursing
- GPA of 3.0 on the last 60 credits for the baccalaureate degree
- RN license
- One year of professional nursing experience
- Grade of B or better in a graduate level statistics course within the last 5 years. (Note: The course does not need to be taken before applying, but must be successfully completed prior to the start of the fall term.)
- Application essay (see School of Nursing website (<http://www.son.wisc.edu>) for specific criteria)
- Three letters of recommendation
- Curriculum vitae or resume
- English proficiency scores: Applicants whose native language is not English, or whose undergraduate instruction was not in English, must provide an English proficiency test score. Scores are accepted if they are within two years of the start of the admission term. See the Graduate School's Admission Requirements (<http://grad.wisc.edu/admissions/requirements>) for more information on the English proficiency requirement.

Post-BS applicants have a bachelor's degree in nursing. Applicants who have a non-APN master's degree (i.e., nurse education) are considered post-B.S. applicants and are able to waive up to 18 credits based on previous graduate coursework, pending review of syllabi.

Admission requirements for the DNP program (post-master's) are:

- Graduation from an accredited baccalaureate program in nursing
- Master's degree in a specialty track from an accredited nursing program
- GPA of 3.5 for the master's degree
- RN license
- Certification as an advanced practice nurse
- One year of professional nursing experience
- Grade of B or better in a graduate level statistics course within the last 5 years. (Note: The course does not need to be taken before applying, but must be successfully completed prior to the start of the fall term.)
- Application essay (see School of Nursing website (<http://www.son.wisc.edu>) for specific criteria)
- Three letters of recommendation
- Curriculum vitae or resume
- English proficiency scores: Applicants whose native language is not English, or whose undergraduate instruction was not in English, must provide an English proficiency test score. Scores are accepted if they are within two years of the start of the admission term. See the Graduate School's Admission Requirements (<http://grad.wisc.edu/admissions/requirements>) for more information on the English proficiency requirement.

Additional admission requirements for international applicants are:

- CGFNS Certification
- Minimum English proficiency scores in one of the following:
 - TOEFL (600 PBT, 100 iBT)
 - IELTS (8)
 - MELAB (85)

All application materials must be received by February 1 for admission in the fall semester.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Several forms of financial aid are available for graduate students in the School of Nursing. These include fellowships, scholarships, project and teaching assistantships, and loans. Most graduate assistantships cover the cost of tuition and provide a monthly stipend. Awards are made in the spring for the following academic year.

Graduate Research Scholars (GRS) fellowships are designed to support highly qualified underrepresented students in the doctoral programs. Doctoral students who are preparing to be full-time faculty in nursing programs are also eligible for the Nurse Faculty Loan Program (NFLP). These loans, supported by the federal government, are available to cover tuition and other educational expenses. When graduates become full-time faculty members, up to 85 percent of the NFLP loan will be canceled over a four-year period.

Additional information on financial aid including application procedures is available in the School of Nursing Academic Affairs Office.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
No	No	No	Yes	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement Post-B.S.: 71 credits (68 credits in the program plan plus 3-credit graduate statistics requirement)
Post-M.S.: 51 credits (32 credits in the program plan plus 19 credits from Master's degree)

Minimum Residence Credit Requirement Post-B.S.: 54 credits
Post-M.S.: 32 credits

Minimum Graduate Coursework Requirement Half of degree coursework must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements A student may not receive more than one grade below a B (or a U grade) in any 12 month period.

Assessments and Examinations No examinations are required.

Language Requirements No language requirements.

Doctoral Minor/Breadth Requirements DNP students are not required to complete a doctoral minor.

REQUIRED COURSES

POST-BACCALAUREATE OPTION

Code	Title	Credits
Systematic Evaluation of Practice Component		
	Graduate Statistics Course (prerequisite)	0
NURSING 706	Nursing Research	3
NURSING 761	Health Program Planning, Evaluation, and Quality Improvement	3
NURSING 764	Nursing and Health Informatics	3
NURSING 806	Evaluation and Application of Evidence-Based Practice	3
NURSING 906	Scholarly Project	6
Leadership/Policy Component		
NURSING 703	Health Care and Public Policy in the US	3
NURSING 704	Leadership in Advanced Practice Nursing I	3
NURSING 708	Ethics for Advanced Practice in Health Care	2
NURSING 772	Leadership and Organizational Decision-Making in Health Care	3
	Leadership/Policy Elective	3
Practice Component		
<i>Advanced Practice Course Core</i>		
NURSING 702	Health Promotion and Disease Prevention in Diverse Communities	3
NURSING 601	Advanced Assessment	3-4
NURSING/ PHM PRAC 605	Pharmacotherapeutics for Advanced Practice Nurses	3
NURSING 811	Advanced Pathophysiology	3
	Population Theory Course	3
Choose only one population:		
NURSING 722	Advanced Practice Nursing Theory: Adults and Older Adults	

NURSING 741	Advanced Practice Nursing Theory: Family Process & Child Development	
NURSING 751	Advanced Practice Nursing Theory: Psychiatric Mental Health	
<i>APN Clinical/Leadership Practicum & Role Core</i>		
NURSING 726	Foundations for APN Clinical Practice I	3
NURSING 727	Foundations for APN Clinical Practice II	3
NURSING 826	Foundations for APN Clinical Practice III	3
NURSING 728	Advanced Practice Clinical Application and Role Development I	1-4
NURSING 729	Advanced Practice Clinical Application and Role Development II	1-4
NURSING 828	Clinical Leadership III ¹	1-4
NURSING 829	Clinical Leadership IV ¹	1-4

¹ Variable 2–4 credits in these semesters; 6 credits total required.

Post-Baccalaureate Part-Time Program Plan

First Year			
Fall	Credits Spring	Credits Summer	Credits
NURSING 706	3 NURSING 702	3 NURSING 764	3
NURSING 704	3 NURSING 703	3	
	6	6	3
Second Year			
Fall	Credits Spring	Credits Summer	Credits
NURSING 806	3 NURSING 761	3 NURSING 708	2
	Elective ¹	3	
	3	6	2
Third Year			
Fall	Credits Spring	Credits Summer	Credits
NURSING 722, 741, or 751	3 NURSING 601	3 NURSING 772	3
NURSING 811	3 NURSING/PHM PRAC 605	3	
	6	6	3
Fourth Year			
Fall	Credits Spring	Credits Summer	Credits
NURSING 726	3 NURSING 727	3 NURSING 906	2
NURSING 728	3 NURSING 729	3	
	6	6	2
Fifth Year			
Fall	Credits Spring	Credits	
NURSING 826	3 NURSING 829	3	
NURSING 828	3 NURSING 906	2	
NURSING 906	2		
	8	5	
Total Credits 68			

¹ See Pre-approved elective options. Additional options may be approved by program director.

Post-Baccalaureate Full-Time Program Plan

First Year				
Fall	Credits Spring	Credits Summer	Credits	
NURSING 706	3 NURSING 601	3 NURSING 764	3	
NURSING 704	3 NURSING/PHM PRAC 605	3 NURSING 708	2	
NURSING 811	3 NURSING 703	3		
NURSING 722, 741, or 751	3 NURSING 702	3		
	12	12	5	
Second Year				
Fall	Credits Spring	Credits Summer	Credits	
NURSING 726	3 NURSING 727	3 NURSING 772	3	
NURSING 728	3 NURSING 729	3 NURSING 906	2	
NURSING 806	3 NURSING 761	3		
	9	9	5	
Third Year				
Fall	Credits Spring	Credits		
NURSING 826	3 Elective (may be taken any semester) ¹	3		
NURSING 828	3 NURSING 829	3		
NURSING 906	2 NURSING 906	2		
	8	8		
Total Credits 68				

¹ See Pre-approved elective options. Additional options may be approved by program director.

POST-MASTER'S OPTION

Code	Title	Credits
Systematic Evaluation of Practice		
	Graduate Statistics Course (prerequisite)	0
NURSING 761	Health Program Planning, Evaluation, and Quality Improvement	3
NURSING 764	Nursing and Health Informatics	3
NURSING 806	Evaluation and Application of Evidence-Based Practice	3
NURSING 906	Scholarly Project ¹	6
Leadership/Policy Component		
NURSING 708	Ethics for Advanced Practice in Health Care	2
NURSING 722	Advanced Practice Nursing Theory: Adults and Older Adults	3
	Leadership/Policy Elective	3
Practice Component		
	Select one of the populations:	3
NURSING 722	Advanced Practice Nursing Theory: Adults and Older Adults	
NURSING 741	Advanced Practice Nursing Theory: Family Process & Child Development	
NURSING 751	Advanced Practice Nursing Theory: Psychiatric Mental Health	

APN Clinical/Leadership Practicum & Role Core		
NURSING 828	Clinical Leadership III	1-4
NURSING 829	Clinical Leadership IV	1-4

Post-Master's Program Plan

First Year

Fall	Credits Spring	Credits Summer	Credits
NURSING 772	3 NURSING 806	3 NURSING 764	3
	3	3	3

Second Year

Fall	Credits Spring	Credits Summer	Credits
NURSING 722, 741, or 751	3 NURSING 761	3 NURSING 708	2
Elective (can be taken any semester) ¹	3	NURSING 906	2
	6	3	4

Third Year

Fall	Credits Spring	Credits
NURSING 828	3 NURSING 829	3
NURSING 906	2 NURSING 906	2
	5	5

Total Credits 32

¹ See Pre-approved elective options. Additional options may be approved by program director.

Pre-approved elective options

Code	Title	Credits
Pre-approved elective options		
NURSING/PEDIAT/ PHM PRAC/ SOC WORK 746	Interdisciplinary Care of Children with Special Health Care Needs	3
NURSING 657	Clinical Psychopharmacology	3
NURSING 847	Health Policy Practicum	3
NURSING 785	Foundations of Curriculum Development and Evaluation in Nursing Education	3
NURSING 786	Foundations of Teaching and Learning in Nursing	3
NURSING 787	Nursing Education Practicum	1-3
COUN PSY 650	Theory and Practice in Interviewing	3
SOC WORK 875	Health, Aging, and Disability Policy and Services	2
POP HLTH/SOC 797	Introduction to Epidemiology	3
POP HLTH/ A A E/ENVIR ST/ PUB AFFR 881	Benefit-Cost Analysis	3
POP HLTH 785	Health Systems, Management, and Policy	3
NURSING/ PHM PRAC 674	Seminars in Interprofessional Mental Health Care	2
NURSING/LAW/ MED SC-M 768	Consumer Health Advocacy and Patient-Centered Care Clinical	1-7
POP HLTH 786	Social and Behavioral Sciences for Public Health	3

POP HLTH 650	Special Topics	1-6
POP HLTH/ NURSING/ PHARMACY/ PHY ASST/ PHY THER 758	Interprofessional Public Health Leadership	1

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (https://nursingstudentnet.wiscweb.wisc.edu/wp-content/uploads/sites/222/2017/07/handbook_dnp.pdf) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

Post-B.S.: With program approval, students are allowed to count up to 18 credits of graduate coursework from other institutions. Graduate work should be less than five years old to be considered; additional justification and/or documentation are needed for work taken between five and ten years. Work more than ten years old will not be considered.

Post-M.S.: With program approval, students are allowed to count up to 19 credits of graduate coursework from other institutions. Graduate work should be less than five years old to be considered; additional justification and/or documentation are needed for work taken between five and ten years. Work more than ten years old will not be considered unless students are board certified advanced practice nurses (APN) and have continuous practice as an APN.

UW-Madison Undergraduate

No undergraduate coursework will be allowed to count toward DNP requirements.

UW-Madison University Special

With program approval, students are allowed to count no more than 9 credits of coursework numbered 300 or above taken as a UW-Madison University Special student. These credits are considered part of the total allowable credits available for a student to transfer. Coursework should be less than five years old to be considered; additional justification and/or documentation is needed for work taken between five and ten years. Work more than ten years old will not be considered.

PROBATION

A semester GPA below 3.0 will result in the student being placed on academic probation. If a student has not returned to satisfactory progress by the determined deadline, a decision about whether the student will be permitted to continue will be made by the graduate programs committee (or appropriate subcommittee) with input from the student's advisor.

ADVISOR / COMMITTEE

Progression is reviewed each semester by academic affairs office staff and advisors.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Post-B.S.: Students must complete the requirements within six years of admission. Upon the advisor's recommendation, the associate dean for academic programs may grant a one-year extension.

Post-M.S.: Students must complete the requirements within four years of admission to the program. Upon the advisor's recommendation, the associate dean for academic programs may grant a one-year extension.

OTHER

Several forms of financial aid are available for graduate students: traineeships, fellowships, scholarships, research and teaching assistantships, and loans.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PROGRAM RESOURCES

Career advising, funding, and professional development opportunities are shared with all students by a member of the School of Nursing Academic Affairs staff. Information on these support services can be found on the Student Site (<https://students.nursing.wisc.edu/career-advising/career>).

LEARNING OUTCOMES

1. Integrate nursing science with knowledge from the biophysical, psychosocial, analytical, and organizational sciences as the basis for advanced level nursing practice.
2. Develop and evaluate new practice approaches based on nursing theories and theories from other disciplines.
3. Employ consultative and leadership skills with intraprofessional and interprofessional teams to create change in complex health care delivery systems.
4. Lead the evaluation of evidence to determine and implement best practice.

5. Function as a practice specialist in collaborative knowledge-generating research.

6. Demonstrate leadership in the development of institutional, local, state, federal, and/or international health policy.

7. Use information systems technology to evaluate outcomes of care, care systems, and quality improvement.

8. Develop, implement, and evaluate interventions to improve health status and access patterns, and to address gaps in care of individuals, aggregates, or populations.

9. Demonstrate advanced levels of clinical judgment, systems thinking, and accountability in designing, delivering, and evaluating evidence-based care to improve patient outcomes.

10. Guide, mentor, and support other nurses to achieve excellence in clinical nursing practice.

PEOPLE

FACULTY

Professors Scott (Dean), Bowers, Kintner, Kwekkeboom, Lauver, May, Oakley, Zahner; Associate Professors Tluczek, Ward Assistant Professors Bratzke, Gilmore-Bykovskyi, Jang, King, Pecanac, Roberts, Snedden, Steege, Torres, Whitmore;

Clinical Professors Anderson, Jarzemsky, Pinekenstein, Solheim; Clinical Associate Professors Andrews, Bryan, Crary, Dwyer, Greene, Lothe, McGranahan, Murphy-Ende, Voge, Yardo; Clinical Assistant Professors Astrella, Bell, Egan, Eisch, Endicott, Fiegel-Newlon, Fisher, Francois, Halm, Hirvela, Kechele, Newton, Norder-Brandli, Saladar, Sasse, Seiler-Schultz, Wallace; Clinical Instructors Athanas, Cattapan, Collins, Dachel, Drake, Kobernusz, Krummen-Lee, Lothary, Norsby, Pavek, Schatzke, Schwartz, Woywod

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ACCREDITATION

Accreditation

Commission on Collegiate Nursing Education (<http://www.aacnnursing.org/CCNE>)

Accreditation status: Next accreditation review: 2026-2027.

NURSING, DOCTORAL MINOR

REQUIREMENTS

The requirements for a Ph.D. candidate from another program for an Option A minor in nursing are 10 credits of graduate-level course work to include at least 6 credits at the 800 level. No more than 4 of the 10 credits may be transfer credits. Any transfer credits from master's-level course work must have been taken within five years of admission to the Ph.D. program.

PEOPLE

FACULTY

Professors Scott (Dean), Bowers, Kintner, Kwekkeboom, Lauver, May, Oakley, Zahner; Associate Professors Tluczek, Ward Assistant Professors Bratzke, Gilmore-Bykovskyi, Jang, King, Pecanac, Roberts, Snedden, Steege, Torres, Whitmore;

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NURSING, M.S.

The School of Nursing is no longer admitting students to the M.S. program or the M.S./MPH dual degree program. The M.S. program for advanced practice has transitioned to the Doctor of Nursing Practice (DNP) degree (p. 1077).

ADMISSIONS

This master's program is offered for work leading to the Ph.D. Students may not apply directly for the master's, and should instead see the admissions information for the Ph.D (p. 1085).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Graduate Coursework Requirement

Minimum Residence Credit Requirement

Minimum Graduate Coursework Requirement Half of degree coursework (18 credits out of 36 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements No other grade requirements.

Assessments and Examinations No formal examination required.

Language Requirements No language requirements.

REQUIRED COURSES

Students might earn an M.S. in Nursing on the way to the Ph.D. in Nursing (p. 1085).

Nursing coursework at or above the 300 level.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://nursingstudentnet.wiscweb.wisc.edu/wp-content/uploads/sites/222/2017/08/2017-18-PhD-Student-Handbook-v2-9.11.17.pdf>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count up to 9 credits of graduate coursework from other institutions. Graduate work should be less than five years old to be considered; additional justification and/or documentation are needed for work taken between five and ten years. Work ten or more years prior to admission to the program will not be considered.

UW-Madison Undergraduate

No credits from a UW-Madison undergraduate degree are allowed to count toward the degree.

UW-Madison University Special

With program approval, students are allowed to count no more than 6 credits of coursework numbered 300 or above taken as a UW-Madison University Special student. These credits are considered part of the total allowable credits available for a student to transfer. Coursework should be less than

five years old to be considered; additional justification and/or documentation is needed for work taken between five and ten years. Work ten or more years prior to admission to the program will not be considered.

PROBATION

A semester GPA below 3.0 will result in the student being placed on academic probation. If a semester GPA of 3.0 is not attained during the subsequent semester of full time enrollment (or 12 credits of enrollment if enrolled part-time) the student may be dismissed from the program or allowed to continue for one additional semester based on advisor appeal to the Graduate School.

ADVISOR / COMMITTEE

Student progression is reviewed annually.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Requirements for the degree must be completed within five years of admission.

OTHER

The School of Nursing makes a strong commitment to funding students admitted into the Ph.D. program who are enrolled full-time. Sources of funding include extramural, campus, and internal School of Nursing funding. The majority of funding decisions are made in the Spring for the following academic year. Continuing and newly admitted students are encouraged to apply for funding.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PROGRAM RESOURCES

Career advising, funding, and professional development opportunities are shared with all students by a member of the School of Nursing Academic Affairs staff. Information on these support services can be found on the Student Site (<https://students.nursing.wisc.edu/career-advising/career>).

LEARNING OUTCOMES

1. (Background for Practice from Sciences and Humanities) Recognizes that the master's-prepared nurse integrates scientific findings from nursing, biopsychosocial fields, genetics, public health, quality improvement, and organizational sciences for the continual improvement of nursing care across diverse settings.
2. (Organizational and Systems Leadership) Recognizes that organizational and systems leadership are critical to the promotion of high quality and safe patient care. Leadership skills are needed that emphasize ethical and critical decision making, effective working relationships, and a systems-perspective.

3. (Quality Improvement and Safety) Recognizes that a master's-prepared nurse must be articulate in the methods, tools, performance measures, and standards related to quality, as well as prepared to apply quality principles within an organization.

4. (Translating and Integrating Scholarship into Practice) Recognizes that the master's-prepared nurse applies research outcomes within the practice setting, resolves practice problems, works as a change agent, and disseminates results.

5. (Informatics and Healthcare Technologies) Recognizes that the master's-prepared nurse uses patient-care technologies to deliver and enhance care and uses communication technologies to integrate and coordinate care.

6. (Health Policy and Advocacy) Recognizes that the master's-prepared nurse is able to intervene at the system level through the policy development process and to employ advocacy strategies to influence health and health care.

7. (Interprofessional Collaboration for Improving Patient and Population Health Outcomes) Recognizes that the master's-prepared nurse, as a member and leader of interprofessional teams, communicates, collaborates, and consults with other health professionals to manage and coordinate care.

8. (Ethical Practice) Recognizes and applies principles of ethical and professional conduct.

9. (Master's-Level Nursing Practice) Recognizes that nursing practice, at the master's level, is broadly defined as any form of nursing intervention that influences healthcare outcomes for individuals, populations, or systems. Master's-level nursing graduates must have an advanced level of understanding of nursing and relevant sciences as well as the ability to integrate this knowledge into practice. Nursing practice interventions include both direct and indirect care components.

10. (Clinical Prevention and Population Health for Improving Health) Recognizes that the master's-prepared nurse applies and integrates broad, organizational, client-centered, and culturally appropriate concepts in the planning, delivery, management, and evaluation of evidence-based clinical prevention and population care and services to individuals, families, and aggregates/identified populations.

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NURSING, PH.D.

The emphasis on theory and practice of nursing prepares nurse scientists to: develop and/or test theory that drives nursing practice; design and conduct clinical efficacy and effectiveness trials of nursing interventions to improve health; and build a program of research around a clinical problem, phenomenon, or population of interest that will shape patient care across various settings. The emphasis on policy and leadership prepares nurse scientists with the conceptual strategies and methodological skills to assess and address the biobehavioral, social, and economic public policy factors that influence the definition of what constitutes health problems and the manner in which they are treated.

The School of Nursing offers a program leading to the doctor of philosophy degree. The school also has a unique early entry Ph.D.

program to bridge or accelerate progression to the Ph.D. level for undergraduate nursing students. Postdoctoral training opportunities are also available.

The mission of the School of Nursing is to prepare nurse leaders who improve human health through practice, education and research. Our strategic priorities are to advance science through research and scholarship, prepare nurse leaders for the health challenges of the 21st century, foster strategic partnerships to promote human health, achieve the school's commitment to diversity, and create the preferred future of the School of Nursing.

Nursing faculty members are well prepared for their roles as scholars, clinicians, and teachers. Many have postdoctoral experience in nursing and related disciplines. They have wide-ranging clinical expertise foundational to their experiences with doctoral students. Many faculty have been awarded prestigious federal and private research and training awards and are well known for their expertise in university, local, national, and international communities. Our faculty have a wide variety of research interests. Areas of particular strength and depth include the following:

- Aging
- Chronic illness & symptom management
- Care of children & families
- Health systems & care delivery

World-renowned facilities for clinical practice and research are available in and around Madison. These include University of Wisconsin Hospital and Clinics, American Family Children's Hospital, UW Carbone Cancer Center, and William S. Middleton Memorial Veterans Hospital; hospitals and clinics in urban and rural settings; nursing homes; and public health agencies. The University's location in Wisconsin's capital offers opportunities for involvement in state government and policy making.

Signe Skott Cooper Hall, the School of Nursing's new facility, features state-of-the-art classrooms, simulation labs, meeting and research facilities, and social gathering spaces in an environment dedicated to the health and wellness of students, faculty, staff, and the communities and populations served. Adjacent to Cooper Hall, the Health Sciences Learning Center (HSLC) brings together students in nursing, medicine, and pharmacy, and includes the Ebling Library and University Book Store.

The school's mission is to develop leaders for the profession and society—we make discoveries, enhance systems, and improve health through research, education, and practice.

EARLY ENTRY PH.D. OPTION

The early-entry Ph.D. option is designed for undergraduate students who are interested in research as a career and the Ph.D. as a goal. With the assistance of a faculty advisory committee, early entry students plan an individualized program of study and research, drawing on existing undergraduate and graduate courses in nursing and related disciplines. Two degrees are awarded to students who complete this option: bachelor of science in nursing (B.S.), granted by the School of Nursing, and doctor of philosophy (Ph.D.), granted by the Graduate School.

DOCTOR OF PHILOSOPHY DEGREE

The purpose of the Ph.D. program is to prepare researchers to develop, evaluate, and disseminate new knowledge in nursing and health science. The program is characterized by early and continuous training in research through a close mentoring relationship with faculty, a strong

scientific base in nursing, and supporting courses in a related (i.e., minor) discipline. Graduates with a research doctorate are prepared to assume positions as faculty as well as research scientists and research directors in a variety of educational, clinical, and governmental settings.

The program is designed to be completed in four years of full time study and requires a minimum of 52 credits. Students may be accepted into the Ph.D. program either post-baccalaureate or post-master's. Students are encouraged to enroll full-time. If part-time study is necessary, a minimum of 6 credits per semester is required.

In collaboration with the faculty mentor(s), students plan a course of study that constitutes a unified program and fulfills the program requirements. Students select an emphasis in one of the following tracks:

- Theory & practice of nursing
- Policy & leadership

The emphasis on theory and practice of nursing prepares nurse scientists to: develop and/or test theory that drives nursing practice; design and conduct clinical efficacy and effectiveness trials of nursing interventions to improve health; and build a program of research around a clinical problem, phenomenon, or population of interest that will shape patient care across various settings. The emphasis on policy and leadership prepares nurse scientists with the conceptual strategies and methodological skills to assess and address the biobehavioral, social, and economic public policy factors that influence the definition of what constitutes health problems and the manner in which they are treated.

ADMISSIONS

Admission requirements for the Ph.D. program are:

- A bachelor's degree in nursing from an accredited (CCNE or NLN) program
- Undergraduate GPA of at least 3.0 (on a 4.0 scale) on the last 60 credits of the most recent baccalaureate degree
- Satisfactory scores on the Graduate Record Exam (GRE)
- Satisfactory academic references from individuals who can speak to your scholarly activities, research capabilities and potential for success in the doctoral program
- Satisfactory examples of two original papers or other scholarly work
- Essay
- Curriculum vitae or resume
- English proficiency scores: Applicants whose native language is not English, or whose undergraduate instruction was not in English, must provide an English proficiency test score. Minimum English proficiency test score: TOEFL = 580 (paper)/92 (internet-based), MELAB = 82 or IELTS = 7. Please refer to the Graduate School (<https://grad.wisc.edu/admissions/requirements>) for more information. Applicants are exempt if any of the following applies to their situation:
 - English is the exclusive language of instruction at the undergraduate institution attended
 - Applicant earned a degree from a regionally-accredited U.S. college or university not more than five years prior to the anticipated semester of enrollment
 - Applicant completed at least two full-time semesters of graded course work, exclusive of ESL courses, in a U.S. college or university, or at an institution outside the U.S. where English is

the exclusive language of instruction, not more than five years prior to the anticipated semester of enrollment

Applications should be submitted for priority consideration by December 1 for admission in the fall semester.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Several forms of financial aid are available for graduate students in the School of Nursing. These include fellowships, traineeships, scholarships, research, project and teaching assistantships, and loans. Most graduate assistantships cover the cost of tuition and provide a monthly stipend. Awards are made in the spring or early summer for the following academic year. Full-time Ph.D. students receive priority for teaching and research assistantships administered by the School of Nursing. Students in the Ph.D. program have also been successful in competing for federal National Research Service Awards (NRSA) which are individual predoctoral fellowships.

Graduate Research Scholars (GRS) Fellowships are designed to support highly qualified underrepresented students in the doctoral programs. Doctoral students who are preparing to be full-time faculty in nursing programs are also eligible for the Nurse Faculty Loan Program (NFLP). These loans, supported by the federal government, are available to cover tuition and other educational expenses. When graduates become full-time faculty members, up to 85 percent of the NFLP loan will be canceled over a four-year period.

Additional information on financial aid including application procedures is available in the School of Nursing Academic Affairs Office.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 52 credits

Minimum Residence Credit Requirement 32 credits

Minimum Graduate Coursework Requirement Half of degree coursework (26 credits out of 52 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements A student may not receive more than one grade below a B (or a U grade) in any 12 month period.

Assessments and Examinations To be eligible for the comprehensive candidacy examination, candidates must have completed all formal coursework requirements.

Language Requirements No language requirements.

Doctoral Minor/Breadth Requirements All doctoral students are required to complete a minor.

REQUIRED COURSES

Code	Title	Credits
Core		
NURSING 802	Ethics and the Responsible Conduct of Research	1
NURSING 803	Advanced Quantitative Design and Methods	3
NURSING 804	Advanced Qualitative Design and Methods	3
NURSING 815	Knowledge Development in Nursing	3
NURSING 816	Proseminar in Nursing Research	1
Advanced Methods/Statistics		6
Theory and Practice of Nursing		3-9
All students are required to take a minimum of 3 credits in a population or phenomenon course:		
NURSING 590	Contemporary Practices in Nursing (Topic: Chronic Illness Management)	
NURSING 702	Health Promotion and Disease Prevention in Diverse Communities	
NURSING 722	Advanced Practice Nursing Theory: Adults and Older Adults	
NURSING 741	Advanced Practice Nursing Theory: Family Process & Child Development	
NURSING 751	Advanced Practice Nursing Theory: Psychiatric Mental Health	
Students who select an emphasis in Theory and Practice of Nursing will complete at least 6 additional credits including:		
NURSING 818	Patient-centered Research Clinical Field Practicum	
Policy and Leadership		3-9
NURSING 703	Health Care and Public Policy in the US	
Students who select an emphasis in Policy and Leadership will complete at least 6 additional credits including:		
NURSING 817	Research in Communities, Populations, and Systems	
Policy and Leadership Practicum		
Nursing Education ¹		3
NURSING 785	Foundations of Curriculum Development and Evaluation in Nursing Education	3
NURSING 786	Foundations of Teaching and Learning in Nursing	3
NURSING 787	Nursing Education Practicum	1-3
Minor		9
Guided Research		10
Students are expected to take at least 1 credit of Independent Study and participate in their faculty mentor's research group (or another research group agreed upon with the mentor) each semester.		

¹ Students who have not had a prior course in adult education are strongly encouraged to take a didactic course rather than taking NURSING 787 Nursing Education Practicum only.

Sample full-time course schedule

First Year

Fall	Credits Spring	Credits Summer	Credits
NURSING 815	3 NURSING 803	3 NURSING 999	1-3
NURSING 816	1 NURSING 703 ²	3 NURSING 802	1
NURSING 999	1-3 NURSING 999	1-3	
Population/phenomenon ¹	3 Advanced Statistics	3	
Statistics ¹	3		
	11-13	10-12	2-4

Second Year

Fall	Credits Spring	Credits Summer	Credits
NURSING 804	3 NURSING 999	1-3 NURSING 999	1-3
NURSING 999	1-3 Nursing Education ¹	3 NURSING 819 or 847 ³	3
Additional Statistics	3 T&P Minor, or	3	
Minor	3 P&L: Health Policy Course ¹		
	10-12	7-9	4-6

Third Year

Fall	Credits Spring	Credits Summer	Credits
NURSING 816	1 NURSING 999	5 NURSING 990	3
NURSING 999	1-3 Remaining Minor, Methods/Stats, Population ¹	3	
Additional Minor, Methods/Stats, Population ¹	3		
NURSING 818 (or Minor) ^{1,4,5}	3		
	8-10	8	3

Total Credits 63-77

- ¹ See Approved course options/substitutions
- ² NURSING 703 is taken by most students following the Theory and Practice (T&P) track to satisfy their 3-credit policy requirement
- ³ NURSING 819 is taken by Theory & Practice (T&P) students; Nursing 847 is taken by Policy & Leadership (P&L) students
- ⁴ NURSING 818 will be offered during odd numbered fall terms
- ⁵ NURSING 818 or approved alternative is taken by Theory & Practice (T&P) students, Policy & Leadership (P&L) students may take a minor course at this time

Approved course options/substitutions

Code	Title	Credits
Substitutions for NURSING 818		
ED PSYCH 946	Advanced Assessment and Intervention Techniques	3

ED PSYCH/ COUN PSY/ RP & SE 736	Seminar in Psychology of Individual Differences	3
SOC WORK 741	Interventions with Children, Youth, and Families	2
Population/phenomenon		
SOC WORK 921	Child Welfare	2-3
SOC WORK 644	Issues in Developmental Disabilities	2-3
SOC WORK 874	Advanced Practice in Health, Aging, and Disability	2
SOC/C&E SOC 971	Seminar-Topics in Demography and Ecology	3
POP HLTH 786	Social and Behavioral Sciences for Public Health	3
NURSING 722	Advanced Practice Nursing Theory: Adults and Older Adults	3
NURSING 741	Advanced Practice Nursing Theory: Family Process & Child Development	3
NURSING 751	Advanced Practice Nursing Theory: Psychiatric Mental Health	3
RP & SE 560	Psychosocial Aspects of Chronic Illness and Disability	3
HDFS 516	Stress and Resilience in Families Across the Lifespan	3
OTM 753	Healthcare Operations Management	3
NURSING 817	Research in Communities, Populations, and Systems	3
POP HLTH 709	Translational and Outcomes Research in Health and Health Care	3
POP HLTH 876	Measuring Health Outcomes	3
POP HLTH 786	Social and Behavioral Sciences for Public Health	3
POP HLTH 785	Health Systems, Management, and Policy	3
ED PSYCH/ HDFS/NURSING/ SOC WORK 880	Prevention Science	3
Statistics options		
ED PSYCH 760 & ED PSYCH 761	Statistical Methods Applied to Education I and Statistical Methods Applied to Education II	6
ED PSYCH 762	Introduction to the Design of Educational Experiments	3
ED PSYCH 763	Regression Models in Education	3
ED PSYCH 861	Statistical Analysis and Design in Educational Research	3
ED PSYCH/ELPA 822	Introduction to Quantitative Inquiry in Education	3
ED PSYCH/ELPA 964	Hierarchical Linear Modeling	3
B M I/STAT 541	Introduction to Biostatistics	3
B M I/STAT 641	Statistical Methods for Clinical Trials	3
B M I/STAT 642	Statistical Methods for Epidemiology	3

POP HLTH/B M I 551	Introduction to Biostatistics for Population Health	3
POP HLTH/B M I 552	Regression Methods for Population Health	3
POP HLTH/B M I 651	Advanced Regression Methods for Population Health	3
POP HLTH/B M I 652	Topics in Biostatistics for Epidemiology	1-3
STAT 849	Theory and Application of Regression and Analysis of Variance I	3
STAT 850	Theory and Application of Regression and Analysis of Variance II	3
STAT 601	Statistical Methods I	4
Nursing education options		
NURSING 785	Foundations of Curriculum Development and Evaluation in Nursing Education	3
NURSING 786	Foundations of Teaching and Learning in Nursing	3
NURSING 787	Nursing Education Practicum	1-3
ELPA/CURRIC 746	The Adult Learner: Implications for Curriculum and Instruction	3
ELPA 701	Introduction to Higher and Post-Secondary Education	3
CURRIC 735	Epistemic Practice and Science Teaching	2

Additional courses may be approved by faculty advisor and program director

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://nursingstudentnet.wiscweb.wisc.edu/wp-content/uploads/sites/222/2017/08/2017-18-PhD-Student-Handbook-v2-9.11.17.pdf>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 18 credits of graduate coursework from other institutions. Graduate work should be less than five years old to be considered; additional justification and/or documentation are needed for work taken between five and

ten years. Work ten or more years prior to admission to the program will not be considered.

UW–Madison Undergraduate

With program approval up to 7 credits numbered 300 or above will be allowed to count toward the Ph.D. degree. This applies to students in the Early Entry Ph.D. route in the School of Nursing.

UW–Madison University Special

With program approval, students are allowed to count no more than 9 credits of coursework numbered 300 or above taken as a UW–Madison University Special student. These credits are considered part of the total allowable credits available for a student to transfer. Coursework should be less than five years old to be considered; additional justification and/or documentation is needed for work taken between five and ten years. Work ten or more years prior to admission to the program will not be considered.

PROBATION

A semester GPA below 3.0 will result in the student being placed on academic probation. If a student has not returned to satisfactory progress by the determined deadline, a decision about whether the student will be permitted to continue will be made by the graduate programs committee (or appropriate subcommittee) with input from the student's advisor.

ADVISOR / COMMITTEE

Ph.D. students complete an annual progression review which includes a written review from the advisor. This is submitted to the Ph.D. Admission, Progression and Funding (APF) Subcommittee of the GPC. APF reviews the student CVs and advisor comments to gain an overall sense of student progression in the program. Comments from the APF regarding progression are then sent to the advisor who shares the result of the review with the student.

Graduate School policy specifies the following with regard to dissertation committees:

Dissertation committees advise and evaluate satisfactory progress, administer preliminary and final oral examinations, evaluate a dissertation, and/or sign a degree warrant. A student arranges a committee with appropriate expertise to afford the breadth and depth needed in degree examinations. In all cases, a student's advisor (major professor) chairs the committee. The executive committee (or its equivalent) is responsible for approving the composition of all dissertation committees.

Minimum Graduate School requirements for the dissertation committees are as follows:

1. *The chair or co-chair of the committee must be Graduate Faculty* from the student's program.*
2. *PhD dissertation committees must have a minimum of 4 members, 3 of whom must be UW–Madison graduate faculty, former UW–Madison graduate faculty up to one year after resignation or retirement. At least 1 of the 4 members must be from outside of the student's major program or major field (often from the minor field).*
3. *The chair may designate 1 of the 4 members of the committee as a non-reader*

- a. Readers are committee members who commit themselves to closely reading and reviewing the entire dissertation. While graduate programs cannot have fewer than three readers, they may require all members to be readers. The rationale for specifically designating non-reader status is to facilitate faculty participation in dissertations without automatically expecting the level of commitment associated with deeply engaging a PhD thesis. Given faculty workloads, designating a non-reader in some cases may permit faculty participation where engagement would otherwise be impossible.
4. The required 4th member of a dissertation committee, as well as any additional members, all retain voting rights.
5. * Graduate Faculty are those who hold tenure track appointments. Non-tenure track faculty (e.g., CHS professors) may participate as 4th or extra committee members, but do not count toward the four "Graduate Faculty" members.

The student and major professor should work together to identify dissertation advisory committee members with appropriate breadth and depth of knowledge. In addition to the *Minimum Graduate School requirements for the dissertation committees* outlined above, the School of Nursing has additional expectations for committee membership:

1. At least 2 members will be from the School of Nursing faculty.
2. In general, all committee members will serve as readers. However, in line with UW-Madison Graduate School Policy and Procedures of Graduate Advisor Committees, the chair may designate 1 of the 4 members of the committee as a non-reader.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

OTHER

The School of Nursing makes a strong commitment to funding students admitted into the Ph.D. and DNP program who are enrolled full-time. Sources of funding include extramural, campus, and internal School of Nursing funding. The majority of funding decisions are made in the Spring for the following academic year. Continuing and newly admitted students are encouraged to apply for funding.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PROGRAM RESOURCES

Career advising, funding, and professional development opportunities are shared with all students by a member of the School of Nursing Academic Affairs staff. Information on these support services can be found on the Student Site (<https://students.nursing.wisc.edu/career-advising/career>).

LEARNING OUTCOMES

1. Master in-depth knowledge in a substantive area of nursing.
2. Articulate research problems, potentials, and limits with respect to nursing theory, knowledge, and practice.
3. Formulate new ideas, concepts, designs, and/or techniques based on critical evaluation of knowledge in nursing and other relevant disciplines.
4. Assume leadership in the creation of original research that makes a substantive contribution to health.
5. Demonstrate cultural knowledge and cross-cultural skills in nursing scholarship.
6. Demonstrate breadth in learning experiences through intra- and cross-disciplinary study, and integration of research, teaching, mentoring, and service to the profession.
7. Negotiate and work successfully with interprofessional teams.
8. Develop and disseminate nursing knowledge to meet the health needs of local, national, and global populations.
9. Communicate complex research findings and implications in a clear and understandable manner to lay and professional audiences.
10. Demonstrate knowledge of professional obligations, codes of ethics, and institutional policies and procedures that guide nursing scholarship.
11. Demonstrate the capacity to identify ethical issues, seek guidance from appropriate resources and adhere to ethical principles and professional norms in the resolution of moral dilemmas.

PEOPLE

FACULTY

Professors Scott (Dean), Bowers, Kintner, Kwekkeboom, Lauver, May, Oakley, Zahner; Associate Professors Tluczek, Ward; Assistant Professors Bratzke, Gilmore-Bykovskyi, Jang, King, Pecanac, Roberts, Snedden, Steege, Torres, Whitmore

ADMINISTRATION

Linda D. Scott, PhD, RN, NEA-BC, FAAN

Dean and Professor
ldscott@wisc.edu (ldscott@wisc.edu)

Dan G. Willis, DNS, RN, PMHCNS-BC, FAAN

Associate Dean for Academic Affairs
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Karen Mittelstadt

Assistant Dean for Academic Affairs (Academic Dean)
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608-263-5284

Diane Lauver, PhD, RN, FNP-BC, FAAN

PhD Program Director, Professor
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ADVISING AND STUDENT SERVICES**Katie Bleier**

Director of Advising and Student Services
katie.bleier@wisc.edu (katie.bleier@wisc.edu)
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Kristi Hammond

Graduate Academic Services Coordinator
kristi.hammond@wisc.edu
608-263-5258

ADMISSIONS AND RECRUITMENT**Mandi Moy**

Director of Admissions and Recruitment
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608-263-5261

Monica Messina

Graduate Admissions and Recruitment Coordinator
mlmessina@wisc.edu
608-263-5158

NUTRITIONAL SCIENCES**DEGREES/MAJORS, DOCTORAL MINORS,
GRADUATE/PROFESSIONAL CERTIFICATES**

- Clinical Nutrition, M.S. (p. 1091)
- Nutritional Sciences, Doctoral Minor (p. 1094)
- Nutritional Sciences, M.S. (p. 1095)
- Nutritional Sciences, Ph.D. (p. 1098)

PEOPLE

Faculty: Professors Eide (chair), Eisenstein, Groblewski, Lai, Ney, Ntambi, Smith, Sunde, Tanumihardjo; Associate Professors Olson, Yen; Assistant Professor Parks. Members of the Interdepartmental Graduate Program in Nutritional Sciences from outside the department: Adams, Anderson, Armentano, Attie, Binkley, Carey, Clagett-Dame, Combs, Cook, Crenshaw, Davis, Denu, Drezner, Engin, Goldman, Hayes, Hernandez, Kanarek, Karasov, Kemnitz, Kimple, Kling, Knoll, Kudsk, Lamming, Mares, Merrins, Pagliarini, Prolla, Reed, Robbins, Schaefer, Simon, White

Graduate Coordinator: Katie Butzen MS.Ed., kbutzen@wisc.edu

CLINICAL NUTRITION, M.S.**The Healthcare System is Changing Rapidly**

Health professions have increased educational standards beyond the bachelor's degree; in fact, the Commission on Dietetic Registration has

increased the requirements to be eligible to take the Registration Exam for Dietitians to the completion of a master's degree beginning in 2024. To remain competitive in the field and obtain the advanced competencies and skills needed in the job market, completion of a Master's degree is becoming essential.

Curriculum Overview

The M.S. in clinical nutrition is focused on core nutrition, clinical nutrition, professional skills, and electives (including public health). This is advanced learning at its best, and is ideal for people with a strong background in clinical nutrition, confidence working at the graduate level, and a commitment to become leaders in clinical nutrition and dietetics. The curriculum is designed to prepare students to translate research; recognize and formulate responses to evolving developments in clinical nutrition practice, policy, and research; and lead and manage professional teams to design nutrition-related services.

ADMISSIONS**GENERAL ADMISSION REQUIREMENTS**

All applicants must:

- Have a bachelor's degree from an accredited college or university or its equivalent and a minimum grade point average of 3.00 on a 4.00 scale
- Have completed the following prerequisite courses:
 - General chemistry
 - Organic chemistry
 - Biological sciences
 - Physiology
 - Biochemistry
 - Statistics
 - Human nutrition
 - Clinical Nutrition

APPLICATION PROCESS

To ensure full consideration for admission into the Master of Science in Clinical Nutrition, it is strongly recommended that applications be completed by:

- Fall semester: February 15
- Spring semester: November 1
- Summer semester: March 1

Applications received after their respective deadlines will be considered as space permits. Review of applications for admissions are reviewed immediately after respective deadlines, applicants can usually expect to be notified a month after deadlines.

Steps to apply are listed below:

1. Complete a **UW-Madison Graduate School Electronic Application**.

The electronic application includes:

- a. **Reasons for Graduate Study.** Please include a brief statement about your professional goals, and reasons for applying.

b. **Letters of Recommendation.** Three letters of recommendation are required. All letters of recommendation are submitted electronically through the admission application.

c. **TOEFL scores**, if necessary.

d. **Unofficial transcript**, submitted electronically.

2. Be sure to closely follow the Steps to Apply for Graduate School (<https://grad.wisc.edu/admissions/process>) and watch your application status page through MyUW (<http://my.wisc.edu>) for missing checklist items or additional information.

For any questions or if you need additional information please go over the **Graduate Admissions FAQ** (<https://grad.wisc.edu/admissions/faq>), or send an email to the graduate program coordinator: Katie Butzen, kbutzen@wisc.edu.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Students enrolled in these programs are not permitted to accept teaching assistantships, project assistantships, research assistantships or other appointments that would result in a tuition waiver.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
No	No	Yes	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses

and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules.

Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement	30 credits
Minimum Residence Credit Requirement	16 credits
Minimum Graduate Coursework Requirement	Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (https://registrar.wisc.edu/course-guide/).
Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	Students must earn a B or above in all core curriculum coursework.
Assessments and Examinations	No formal examination is required.
Language Requirements	No language requirements.

REQUIRED COURSES

Code	Title	Credits
NUTR SCI 650	Advanced Clinical Nutrition: Critical Care and Nutrition Support	3
NUTR SCI 651	Advanced Clinical Nutrition - Pediatrics	3
NUTR SCI 652	Advanced Nutrition Counseling and Education	3
NUTR SCI 653	Clinical Nutrition Research	3
NUTR SCI 710	Human Energy Metabolism	2
NUTR SCI 711	Personalized Nutrition: Genetics, Genomics, and Metagenomics	1
NUTR SCI 715	Micronutrients: Human Physiology and Disease	3
NUTR SCI 720	Advanced Nutrition Assessment	1
NUTR SCI 721	Nutrition Informatics	1

NUTR SCI 725	Advanced Community Nutrition	1
Total Credits		21

"4 credits of Professional Skills" requirement above; courses may not count twice.

² Only available to UWMC Dietetic Interns.

In addition, students are required to complete 4 credits of "Professional Skills" from the following:

Code	Title	Credits
Select one of the following:		
E P D 700	Connected Learning Essentials	4
E P D 701	Writing for Professionals	
E P D 702	Professional Presentations	
E P D/L I S 703	Managing Digital Information	
E P D 712	Ethics for Professionals	
E P D/GEN BUS/ MARKETNG 782	Marketing for Non-Marketing Professionals	
E P D/GEN BUS/ M H R 783	Leading Teams	
E P D/GEN BUS/ OTM 784	Project Management Essentials	
Total Credits		4

Students are also required to complete 5 credits from the following (Note: A maximum of 3 credits from E P D courses may be used to fulfill this requirement):

Code	Title	Credits
Select a total of 5 credits:		
POP HLTH 780	Public Health: Principles and Practice	5
POP HLTH 785	Health Systems, Management, and Policy	
POP HLTH/ M&ENVTOX 789	Principles of Environmental Health: A Systems Thinking Approach	
POP HLTH 879	Politics of Health Policy	
NUTR SCI 699	Special Problems	
E P D 704	Organizational Communication and Problem Solving ¹	
E P D 706	Change Management ¹	
E P D 708	Creating Breakthrough Innovations ¹	
E P D 713	Key Legal Concepts for Professionals ¹	
E P D/ACCT I S/ GEN BUS 781	Financial and Business Acumen ¹	
E P D/GEN BUS/ M H R 785	Effective Negotiation Strategies ¹	
NURSING/ PEDIAT/ PHM PRAC/ SOC WORK 746	Interdisciplinary Care of Children with Special Health Care Needs	
NUTR SCI 670	Nutrition and Dietetics Practicum I ²	
NUTR SCI 671	Nutrition and Dietetics Practicum II ²	

¹ Any E P D course (E P D 700, E P D 701, E P D 702, E P D/L I S 703, E P D/GEN BUS/M H R 783, E P D/GEN BUS/OTM 784) not used in

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 5 credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW-Madison Undergraduate

No credits from a UW-Madison undergraduate degree are allowed to count toward the degree.

UW-Madison University Special

With program approval and payment of the difference in tuition (between Special and graduate tuition), students are allowed to count no more than 14 credits of coursework numbered 300 or above taken as a UW-Madison University Special student. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

Students must be in good academic standing with the Graduate School, their program, and their advisor. The program director and the Graduate School regularly reviews the record of any student who received grades of BC, C, D, F, or I in courses numbered 300

or above, or grades of U in research and thesis. This review could result in academic probation with a hold on future enrollment, and the student may be suspended from graduate studies.

The program director and the Graduate School may also put students on probation for incompletes not cleared within one term. All incomplete grades must be resolved before a degree is granted.

ADVISOR / COMMITTEE

All students are required to conduct a yearly progress report meeting with their advisor, scheduled by December 17 and completed by April 30.

Failure to do so will result in a hold being placed on the student's registration. The meeting may be held via telephone, skype, or in person.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence.

Students may count the coursework completed before their absence for meeting graduate degree credit requirements; the Graduate School will not count that work toward the Graduate School's minimum residence credit minimum.

OTHER

Students enrolled in these programs are not permitted to accept teaching assistantships, project assistantships, research assistantships or other appointments that would result in a tuition waiver. Students in these programs cannot enroll in other graduate programs nor take courses outside the prescribed curriculum.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Articulating and integrating specialized knowledge in the field of advanced clinical nutrition – including energy metabolism, micronutrient requirements, and nutrigenomics needed to meet the challenges of future careers and opportunities.
2. Articulating and demonstrating advanced skills in nutritional assessment and nutritional care of patients with complicated disorders/diseases in a clinical or community setting.
3. Demonstrating advanced skills in nutrition counseling and education needed to precipitate behavior and cognitive change.

4. Formulating systems to gather, analyze and interpret data from a practice setting to develop appropriate protocols and care plans using the nutritional care process.

5. Formulate problem statements and writing research proposals using appropriate study design.

6. Demonstrating an ability to understand, interpret, evaluate, and design clinical nutrition research.

7. Demonstrating high level problem-solving, critical thinking, and use of informatics required in advanced clinical nutrition practice.

8. Demonstrating advanced professional skills in communication, information and project management, leadership, and ethics.

PEOPLE

Faculty

Dave Eide (Department Chair), Ph.D. 1987

Richard Eisenstein, Ph.D. 1985

Associate Professor

Eric Yen, Ph.D. 2000

Faculty Associate

Michelle Johnson, M.S., R.D.

Nathan Johnson, Ph.D.

Julie Thurlow, DR.PH., R.D.

Program Coordinator

Makayla Schuchardt, M.S., R.D.N., C.N.S.C. mlschuchardt@wisc.edu

Graduate Coordinator

Katie Butzen, MS.Ed., kbutzen@wisc.edu

NUTRITIONAL SCIENCES, DOCTORAL MINOR

The doctoral minor in nutritional sciences aims to articulate, critique, and elaborate the theories, research methods, and approaches to inquiry in nutritional sciences. Specific knowledge areas of focus include intermediary metabolism, functions and metabolism of vitamins and minerals, nutrition-related diseases such as obesity and diabetes, and fundamental principles of epidemiology and nutrition policy.

Those completing the doctoral minor in nutritional sciences are expected to identify sources and assemble evidence pertaining to questions or challenges in nutritional sciences, recognize the most appropriate methodologies and practices, evaluate or synthesize information pertaining to questions or challenges in nutritional sciences, communicate clearly in ways appropriate to the field of nutritional sciences, and recognize and apply principles of ethical professional conduct.

ADMISSIONS

Admissions: Graduate Program Coordinator: Katie Butzen, MS.Ed.
(kbutzen@wisc.edu (jmking4@wisc.edu))

REQUIREMENTS

Code	Title	Credits
NUTR SCI/ BIOCHEM 510	Biochemical Principles of Human and Animal Nutrition	3
NUTR SCI/ BIOCHEM 619	Advanced Nutrition: Intermediary Metabolism of Macronutrients	3
Choose three of the following: ¹		3
NUTR SCI/ POP HLTH 621	Introduction to Nutritional Epidemiology	
NUTR SCI/ M&ENVTOX 623	Advanced Nutrition: Minerals	
NUTR SCI 625	Advanced Nutrition: Obesity and Diabetes	
NUTR SCI/ AN SCI 626	Experimental Diet Design	
NUTR SCI 627	Advanced Nutrition: Vitamins	
NUTR SCI 881	Seminar-Topics in Human and Clinical Nutrition (presentation required)	
or NUTR SCI/ BIOCHEM 901	Seminar-Nutrition and Metabolism (Advanced)	

¹ Appropriate NUTR SCI 875 Special Topics courses can be used to substitute for any of the 1-credit courses above with prior approval of the graduate program coordinator.

PEOPLE

Faculty: Professors Eide (chair), Eisenstein, Groblewski, Lai, Ney, Ntambi, Smith, Sunde, Tanumihardjo; Associate Professors Olson, Yen; Assistant Professor Parks. Members of the Interdepartmental Graduate Program in Nutritional Sciences from outside the department: Adams, Anderson, Armentano, Attie, Binkley, Carey, Clagett-Dame, Combs, Cook, Crenshaw, Davis, Denu, Drezner, Engin, Goldman, Hayes, Hernandez, Kanarek, Karasov, Kemnitz, Kimple, Kling, Knoll, Kudsk, Lamming, Mares, Merrins, Pagliarini, Prolla, Reed, Robbins, Schaefer, Simon, White

Graduate Coordinator: Katie Butzen MS.Ed., kbutzen@wisc.edu

NUTRITIONAL SCIENCES, M.S.

Modern nutrition is a multidisciplinary, integrative science, and the Interdepartmental Graduate Program in Nutritional Sciences (IGPNS) has been developed to meet this diversity in approach and objective. Thus, students can focus their training in one of three emphasis groups:

1. Biochemical and Molecular Nutrition,
2. Human Nutrition, or
3. Animal Nutrition.

The degrees offered are the Master of Science and the Doctor of Philosophy in Nutritional Sciences.

It is the program's goal to provide graduate students interested in nutrition with an opportunity to obtain specialized training in a specific research area and also to obtain a general background in the science and practice of nutrition. The program is sufficiently flexible to allow students with a wide variety of undergraduate degrees to meet the background prerequisites. The program draws on the strengths of faculty in a number of the university's colleges and academic departments to enhance the instructional and research experience.

The training objectives of the IGPNS are to provide students with an understanding of basic nutritional principles as they apply to both humans and animals, to provide them with current knowledge in a specific area of emphasis, to make them aware of the integrative and multidisciplinary nature of nutrition research, and to direct them toward a successful career through the thesis and publications.

Biochemical and Molecular Nutrition. This emphasis group focuses on the application of biochemical and physiological approaches to the understanding of nutrient function and metabolism in systems ranging from the whole animal to the molecular level.

Human Nutrition. This emphasis group takes a comprehensive view of human nutrition with emphasis on the maintenance and promotion of human health. It utilizes diverse research approaches to carry out studies on nutrient requirements, metabolism, and interactions. Research may involve physiological and biochemical studies, animal models and epidemiological, and educational or clinical interventions.

Animal Nutrition. This emphasis group takes a comprehensive view of animal nutrition with a focus on expanding understanding of nutrient utilization. Research activities involve both the performance of domestic animals and general comparative nutrition across animal species. Studies may range from applied animal feeding trials to basic studies on nutrient metabolism or integrated whole-animal metabolism with an emphasis on quantification and regulation.

The graduate faculty have well-developed, competitively funded research programs and have been recognized for their activities by receiving national awards. They are active in national and international nutrition activities, and serve on editorial boards, as society officers, and as participants in numerous workshops and on advisory committees.

ADMISSIONS

Candidates for graduate study in nutritional sciences should have a strong background in mathematics, chemistry, and biological and medical sciences or social sciences. Specific prerequisites for the graduate program include five to six semesters of chemistry, three semesters of biological sciences including a course in animal physiology, mathematics through trigonometry, and a course in calculus or statistics. Students who have not completed all the requirements may be admitted, but deficiencies should be made up during the first year of graduate study.

In general, all applicants must have a minimum grade point average of at least 3.0 (on a 4.0 scale). Graduate Record Exam (GRE) scores are required as well as three references and a personal statement. Acceptance requires approval by the Department of Nutritional Sciences and the Graduate School.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Assistantships and fellowships are available to support students. Information about financial assistance may be obtained from the department office.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the

advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Requirement	30 credits
Minimum Residence Credit Requirement	16 credits
Minimum Graduate Coursework Requirement	Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (https://registrar.wisc.edu/course-guide/).
Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.
Assessments and Examinations	Students must complete either a research-based thesis or a literature-based report that passes scholarly review.
Language Requirements	No language requirements.

REQUIRED COURSES

Biochemical and Molecular Track ¹

Code	Title	Credits
NUTR SCI/ BIOCHEM 619	Advanced Nutrition: Intermediary Metabolism of Macronutrients	3
NUTR SCI/ POP HLTH 621	Introduction to Nutritional Epidemiology	1
NUTR SCI/ M&ENVTOX 623	Advanced Nutrition: Minerals	1
NUTR SCI 625	Advanced Nutrition: Obesity and Diabetes	1
NUTR SCI/ AN SCI 626	Experimental Diet Design	1
NUTR SCI 627	Advanced Nutrition: Vitamins	1
NUTR SCI 600	Introductory Seminar in Nutrition	1
BIOCHEM/ NUTR SCI 901	Seminar-Nutrition and Metabolism (Advanced) ²	1+
or NUTR SCI 931	Seminar-Nutrition	
or NUTR SCI 881	Seminar-Topics in Human and Clinical Nutrition	
NUTR SCI 799	Practicum in Nutritional Sciences Teaching (or equivalent experience)	1-3
Select 4 credits of BIOCHEM from the following or equivalent:		4
BIOCHEM 601	Protein and Enzyme Structure and Function	

BIOCHEM/ GENETICS/ MICROBIO 612	Prokaryotic Molecular Biology
BIOCHEM/ GENETICS/ MD GENET 620	Eukaryotic Molecular Biology
BIOCHEM 624	Mechanisms of Enzyme Action
BIOCHEM 625	Mechanisms of Action of Vitamins and Minerals
BIOCHEM/ PHMCOL-M/ ZOOLOGY 630	Cellular Signal Transduction Mechanisms
BIOCHEM/ CHEM 665	Biophysical Chemistry
BIOCHEM/ GENETICS 703	Topics in Eukaryotic Regulation
BIOCHEM 711	Sequence Analysis
BIOCHEM 801	Biochemical Applications of Nuclear Magnetic Resonance

Select a quantitative methods course

- ¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.
- ² Students choose the seminar associated with their emphasis group.

Human Nutrition Track ¹

Code	Title	Credits
NUTR SCI/ BIOCHEM 619	Advanced Nutrition: Intermediary Metabolism of Macronutrients	3
NUTR SCI/ POP HLTH 621	Introduction to Nutritional Epidemiology	1
NUTR SCI/ M&ENVTOX 623	Advanced Nutrition: Minerals	1
NUTR SCI 625	Advanced Nutrition: Obesity and Diabetes	1
NUTR SCI/ AN SCI 626	Experimental Diet Design	1
NUTR SCI 627	Advanced Nutrition: Vitamins	1
NUTR SCI 600	Introductory Seminar in Nutrition	1
NUTR SCI 931	Seminar-Nutrition	1
NUTR SCI 881	Seminar-Topics in Human and Clinical Nutrition	1
NUTR SCI 799	Practicum in Nutritional Sciences Teaching (or equivalent experience)	1-3
Select a research methods or data analysis course		2+

- ¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://nutrisci.wisc.edu/graduate/m-s-ph-d/current-students>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With approval of the certification committee, students are allowed to count up to 14 credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW-Madison Undergraduate

With approval of the certification committee, students may count up to 7 credits from a UW-Madison undergraduate degree, numbered 400 and above, toward the M.S. degree, provided that the course satisfies a requirement within the student's core curriculum or IGPNS emphasis group. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW-Madison University Special

With approval of the certification committee, students are allowed to count no more than 14 credits of coursework taken as a UW-Madison Special student, provided the course satisfies a requirement within the student's core curriculum or IGPNS emphasis group and is numbered 300 or above. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The IGPNS requires a cumulative 3.0 GPA for all courses taken in the UW Graduate School. Grades in research (Nutri Sci 991) are not included in the calculation of the GPA. A student who does not maintain a 3.0 GPA can continue on probationary status for two semesters at the recommendation of the major professor. If, at that time, the student does not achieve a cumulative 3.0 GPA, they will be dropped from the program.

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

12 credits: Fall and Spring semesters

2 credits: Per eight-week summer session

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

n/a

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Articulates, critiques, and elaborates the theories, research methods, and approaches to inquiry in nutritional sciences. Specific knowledge areas of focus include intermediary metabolism, functions and metabolism of vitamins and minerals, nutrition-related diseases such as obesity and diabetes, and fundamental principles of epidemiology and nutrition policy.
2. Identifies sources and assembles evidence pertaining to questions or challenges in nutritional sciences.
3. Selects and/or utilizes the most appropriate methodologies and practices.
4. Evaluates or synthesizes information pertaining to questions or challenges in nutritional sciences.
5. Communicates clearly in ways appropriate to the field of nutritional science. This includes the composition of primary research and review articles. Demonstrates competent communication in the form of oral and poster presentations.

6. Recognizes and applies principles of ethical and professional conduct.

PEOPLE

Faculty: Professors Eide (chair), Eisenstein, Groblewski, Lai, Ney, Ntambi, Smith, Sunde, Tanumihardjo; Associate Professors Olson, Yen; Assistant Professor Parks. Members of the Interdepartmental Graduate Program in Nutritional Sciences from outside the department: Adams, Anderson, Armentano, Attie, Binkley, Carey, Clagett-Dame, Combs, Cook, Crenshaw, Davis, Denu, Drezner, Engin, Goldman, Hayes, Hernandez, Kanarek, Karasov, Kemnitz, Kimple, Kling, Knoll, Kudsk, Lamming, Mares, Merrins, Pagliarini, Prolla, Reed, Robbins, Schaefer, Simon, White

Graduate Coordinator: Katie Butzen MS.Ed., kbutzen@wisc.edu

NUTRITIONAL SCIENCES, PH.D.

Modern nutrition is a multidisciplinary, integrative science, and the Interdepartmental Graduate Program in Nutritional Sciences (IGPNS) has been developed to meet this diversity in approach and objective. Thus, students can focus their training in one of three emphasis groups:

1. Biochemical and Molecular Nutrition,
2. Human Nutrition, or
3. Animal Nutrition.

The degrees offered are the Master of Science and the Doctor of Philosophy in Nutritional Sciences.

It is the program's goal to provide graduate students interested in nutrition with an opportunity to obtain specialized training in a specific research area and also to obtain a general background in the science and practice of nutrition. The program is sufficiently flexible to allow students with a wide variety of undergraduate degrees to meet the background prerequisites. The program draws on the strengths of faculty in a number of the university's colleges and academic departments to enhance the instructional and research experience.

The training objectives of the IGPNS are to provide students with an understanding of basic nutritional principles as they apply to both humans and animals, to provide them with current knowledge in a specific area of emphasis, to make them aware of the integrative and multidisciplinary nature of nutrition research, and to direct them toward a successful career through the thesis and publications.

Biochemical and Molecular Nutrition. This emphasis group focuses on the application of biochemical and physiological approaches to the understanding of nutrient function and metabolism in systems ranging from the whole animal to the molecular level.

Human Nutrition. This emphasis group takes a comprehensive view of human nutrition with emphasis on the maintenance and promotion of human health. It utilizes diverse research approaches to carry out studies on nutrient requirements, metabolism, and interactions. Research may involve physiological and biochemical studies, animal models and epidemiological, and educational or clinical interventions.

Animal Nutrition. This emphasis group takes a comprehensive view of animal nutrition with a focus on expanding understanding of nutrient utilization. Research activities involve both the performance of domestic animals and general comparative nutrition across animal species. Studies may range from applied animal feeding trials to basic studies

on nutrient metabolism or integrated whole-animal metabolism with an emphasis on quantification and regulation.

The graduate faculty have well-developed, competitively funded research programs and have been nationally recognized for their activities. They are active in national and international nutrition activities, and serve on editorial boards, as society officers, and as participants in numerous workshops and on advisory committees.

ADMISSIONS

Candidates for graduate study in nutritional sciences should have a strong background in mathematics, chemistry, and biological and medical sciences or social sciences. Specific prerequisites for the graduate program include five to six semesters of chemistry, three semesters of biological sciences including a course in animal physiology, mathematics through trigonometry, and a course in calculus or statistics. Students who have not completed all the requirements may be admitted, but deficiencies should be made up during the first year of graduate study.

In general, all applicants must have a minimum grade point average of at least 3.0 (on a 4.0 scale). Graduate Record Exam (GRE) scores are required as well as three references and a personal statement. Acceptance requires approval by the Department of Nutritional Sciences and the Graduate School.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Assistantships and fellowships are available to support students. Information about financial assistance may be obtained from the department office.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 51 credits

Minimum Residence Credit Requirement 32 credits

Minimum Graduate Coursework Requirement Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Students must take and pass two preliminary exams. Students must take the first exam prior to the end of the fifth semester and the second exam by the end of the sixth semesters; summer session does not count as a semester. Students may choose the order of the research exam and the general knowledge exam.

Students must defend a final thesis.

Language Requirements	No language requirements.
Doctoral Minor/Breadth Requirements	Students are not required to complete a minor, but are heavily encouraged to pursue a minor.

REQUIRED COURSES

Animal Nutrition Track ¹

Code	Title	Credits
NUTR SCI/ BIOCHEM 619	Advanced Nutrition: Intermediary Metabolism of Macronutrients	3
NUTR SCI/ POP HLTH 621	Introduction to Nutritional Epidemiology	1
NUTR SCI/ M&ENVTOX 623	Advanced Nutrition: Minerals	1
NUTR SCI 625	Advanced Nutrition: Obesity and Diabetes	1
NUTR SCI/ AN SCI 626	Experimental Diet Design	1
NUTR SCI 627	Advanced Nutrition: Vitamins	1
NUTR SCI 600	Introductory Seminar in Nutrition	1
NUTR SCI 931	Seminar-Nutrition	1
BIOCHEM/ NUTR SCI 901	Seminar-Nutrition and Metabolism (Advanced)	1
NUTR SCI 799	Practicum in Nutritional Sciences Teaching (or equivalent experience)	1-3
STAT/F&W ECOL/ HORT 571	Statistical Methods for Bioscience I	4
STAT/F&W ECOL/ HORT 572	Statistical Methods for Bioscience II	4
Select a lab course, from the following or equivalent:		2
BMOLCHEM 504	Human Biochemistry Laboratory	
Select an animal nutrition course, 400 level or above		2

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Biochemical and Molecular Track ¹

Code	Title	Credits
NUTR SCI/ BIOCHEM 619	Advanced Nutrition: Intermediary Metabolism of Macronutrients	3
NUTR SCI/ POP HLTH 621	Introduction to Nutritional Epidemiology	1
NUTR SCI/ M&ENVTOX 623	Advanced Nutrition: Minerals	1
NUTR SCI 625	Advanced Nutrition: Obesity and Diabetes	1
NUTR SCI/ AN SCI 626	Experimental Diet Design	1
NUTR SCI 627	Advanced Nutrition: Vitamins	1
NUTR SCI 600	Introductory Seminar in Nutrition	1
NUTR SCI 931	Seminar-Nutrition	1
BIOCHEM/ NUTR SCI 901	Seminar-Nutrition and Metabolism (Advanced)	1

NUTR SCI 799	Practicum in Nutritional Sciences Teaching (or equivalent experience)	1-3
Select 3 credits in BIOCHEM from the following or equivalent:		3
BIOCHEM 601	Protein and Enzyme Structure and Function	
BIOCHEM/ GENETICS/ MICROBIO 612	Prokaryotic Molecular Biology	
BIOCHEM/ GENETICS/ MD GENET 620	Eukaryotic Molecular Biology	
BIOCHEM 624	Mechanisms of Enzyme Action	
BIOCHEM 625	Mechanisms of Action of Vitamins and Minerals	
BIOCHEM/ PHMCOL-M/ ZOOLOGY 630	Cellular Signal Transduction Mechanisms	
BIOCHEM 660	Methods in Biochemistry	
BIOCHEM/ CHEM 665	Biophysical Chemistry	
BIOCHEM/ GENETICS 703	Topics in Eukaryotic Regulation	
BIOCHEM 711	Sequence Analysis	
BIOCHEM 801	Biochemical Applications of Nuclear Magnetic Resonance	
Select additional coursework in nutrition, BIOCHEM, or related areas		1+
Select a quantitative methods course		2

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Human Nutrition Track ¹

Code	Title	Credits
NUTR SCI/ BIOCHEM 619	Advanced Nutrition: Intermediary Metabolism of Macronutrients	3
NUTR SCI/ POP HLTH 621	Introduction to Nutritional Epidemiology	1
NUTR SCI/ M&ENVTOX 623	Advanced Nutrition: Minerals	1
NUTR SCI 625	Advanced Nutrition: Obesity and Diabetes	1
NUTR SCI/ AN SCI 626	Experimental Diet Design	1
NUTR SCI 627	Advanced Nutrition: Vitamins	1
NUTR SCI 600	Introductory Seminar in Nutrition	1
NUTR SCI 931	Seminar-Nutrition	1
BIOCHEM/ NUTR SCI 901	Seminar-Nutrition and Metabolism (Advanced)	1
NUTR SCI 799	Practicum in Nutritional Sciences Teaching (or equivalent experience)	1-3
Select a lab or advanced-level quantitative methods course		2

Statistics competency

- ¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://nutrisci.wisc.edu/graduate/m-s-ph-d/current-students>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With approval of the certification committee, students are allowed to count up to 19 credits of graduate coursework from other institutions. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

With approval of the certification committee, students are allowed to count up to 7 credits from a UW–Madison undergraduate degree, numbered 400 and above, toward the Ph.D. degree, provided the course satisfies a requirement within the student's core curriculum or IGPNS emphasis group. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison University Special

With program approval, students are allowed to count no more than 15 credits of coursework taken as a UW–Madison Special student, provided the course satisfies a requirement within the student's core curriculum or IGPNS emphasis group. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

PROBATION

The IGPNS requires a cumulative 3.0 GPA for all courses taken in the UW Graduate School. Grades in research (NUTR SCI 991 Research Nutrition) are not included in the calculation of the GPA. A student who does not maintain a 3.0 GPA can continue on probationary status for two semesters at the recommendation of the major professor. If, at that time, the student does not achieve a cumulative 3.0 GPA, they will be dropped from the program.

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies. An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor.

To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

12 credits: fall and spring semesters
2 credits: per eight-week summer session

TIME CONSTRAINTS

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

A candidate for a Doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

A student's program may appeal these time limits through a written request to the Graduate School Office of Academic Services.

OTHER

n/a

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Articulates research problems, potentials, and limits with respect to theory, knowledge, and practice in nutritional sciences. Specific knowledge areas of focus include intermediary metabolism, functions and metabolism of vitamins and minerals, nutrition-related diseases such

as obesity and diabetes, and fundamental principles of epidemiology and nutrition policy.

2. Formulates ideas, concepts, designs, and/or techniques beyond the current boundaries of knowledge in nutritional sciences.
3. Creates original research and scholarship that makes a substantive contribution to nutritional sciences.
4. Demonstrates breadth of knowledge of nutritional sciences.
5. Advances contributions of the field of nutritional sciences to society.
6. Communicates complex ideas in a clear and understandable manner through both written and oral presentations.
7. Fosters and practices ethical and professional conduct.

PEOPLE

Faculty: Professors Eide (chair), Eisenstein, Groblewski, Lai, Ney, Ntambi, Smith, Sunde, Tanumihardjo; Associate Professors Olson, Yen; Assistant Professor Parks. Members of the Interdepartmental Graduate Program in Nutritional Sciences from outside the department: Adams, Anderson, Armentano, Attie, Binkley, Carey, Clagett-Dame, Combs, Cook, Crenshaw, Davis, Denu, Drezner, Engin, Goldman, Hayes, Hernandez, Kanarek, Karasov, Kemnitz, Kimple, Kling, Knoll, Kudsk, Lamming, Mares, Merrins, Pagliarini, Prolla, Reed, Robbins, Schaefer, Simon, White

Graduate Coordinator: Katie Butzen MS.Ed., kbutzen@wisc.edu

ONCOLOGY

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Cancer Biology, M.S. (p. 1102)
- Cancer Biology, Ph.D. (p. 1105)

PEOPLE

Faculty: Alarid (co-director), Loeb (co-director), Ahlquist, Alexander, Arendt, Asimakopoulos, Audhya, Beebe, Bradfield, Bresnick, Burkard, Cryns, Deming, Drinkwater, Evans, Friedl, Friesen, Gould, Griep, Halberg, Harari, Hoffman, Huttenlocher, Jarrard, Johannsen, Kalejta, Kenney, Kimple, Kreeger, Lambert, Lang, Lewis, Marker, McNeel, Mertz, Miyamoto, Morris, Mosher, Rapraeger, Ricke, Rui, Shuler, Sherer, Shull, Striker, Sugden, Tibbetts, Weaver, Wheeler, Xing, Xu, and Zhang. For the most current list of faculty and descriptions of their research interests, the program website (<https://cancerbiology.wisc.edu/faculty-trainers>).

CANCER BIOLOGY, M.S.

The graduate program in cancer biology offers a course of study and research leading to the Ph.D. degree. Although a master's degree is offered under special circumstances, students are not admitted for a master's degree.

The Cancer Biology Graduate Program was established at the McArdle Laboratory for Cancer Research in 1940 as the first graduate program in the United States to offer a degree in basic cancer research. The program now includes more than 50 faculty trainers from multiple departments including Oncology, Medicine, Human Oncology, Cell and Regenerative Biology, Medical Microbiology and Immunology, and others. This interdepartmental structure offers students remarkably diverse training opportunities that span the entire breadth of cancer biology research from haploid or diploid genetics, viral and chemical carcinogenesis, eukaryotic cell and molecular biology, virology, molecular toxicology, and whole-animal carcinogenesis. Through the graduate curriculum, students are introduced to the body of knowledge that has been derived directly from experiments on the induction, properties, and therapy of cancer, and receive the necessary background to conduct independent research.

Curriculum requirements are designed to be flexible, providing a maximal opportunity for specialization within this multidisciplinary field. Students learn through core and elective courses; by participation in seminars, conferences, and journal clubs related to their specific areas of expertise; and most important, from their research advisors. Students who join the program select research advisors after conducting a minimum of three monthlong rotations in different laboratories during the first semester. After choosing an advisor, students will also create an advisory committee of five faculty members who will provide guidance throughout the process of earning the Ph.D. degree. The average time to complete the Ph.D. is 5.5 years. The program prepares students for careers in teaching and research in academia, government, and industry.

ADMISSIONS

This master's program is offered for work leading to the Ph.D. Students may not apply directly for the master's, and should instead see the admissions information for the Ph.D. (p. 1105)

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements Students must earn a B or above in the following courses, otherwise the course must be repeated: ONCOLOGY 703 Carcinogenesis and Tumor Cell Biology, ONCOLOGY 715 Ethics in Science, ONCOLOGY 725 Readings in Cancer Biology, and ONCOLOGY 735 Current Problems in Cancer Biology.

Assessments and Examinations Thesis track—requires a formal thesis. Non-thesis track—no formal examination required.

Language Requirements No language requirements.

REQUIRED COURSES

The curriculum for Cancer Biology is designed to introduce you to research related to the induction, properties, and therapy of cancer and to ensure that you have the necessary background in one or more areas of related, fundamental science to enable you to do original research. Courses are drawn from the Department of Oncology as well as various related departments, including Bacteriology, Biochemistry, Biomolecular Chemistry, Chemistry, Genetics, Human Oncology, Medical Microbiology and Immunology, Pathology and Laboratory Medicine, and Pharmacology.

The Graduate School at UW–Madison requires Ph.D. students to complete a minimum of 51 credits in order to obtain a Ph.D. degree. These credits are fulfilled via core curriculum courses, 990 research, and electives. Courses numbered below 300, audit, and pass/fail do not satisfy the minimum requirement. It is suggested that you take approximately 2 courses per semester with the remaining credits being 990 research. All courses must be completed by the end of your second year, before completing the preliminary exam.

Code	Title	Credits
ONCOLOGY/ MICROBIO/ PL PATH 640	General Virology-Multiplication of Viruses (recommended)	3
ONCOLOGY 703	Carcinogenesis and Tumor Cell Biology (required)	3
ONCOLOGY 715	Ethics in Science (required)	1
ONCOLOGY 735	Current Problems in Cancer Biology (required)	2
ONCOLOGY 901	Seminar (presentation) ¹	1
ONCOLOGY 990	Research (required)	1-12

¹ Beginning in your second year, you will be required to give an annual, formal presentation in the Cancer Biology Student/Postdoc Seminar Series. You will register for ONCOLOGY 901 Seminar during the semester in which you present. Your seminars will be recorded and you will receive feedback from the seminar course instructor to help improve your public speaking and presentation skills. **Attendance at this seminar series is required.** The schedule is posted on the McArdle website (http://mcardle.oncology.wisc.edu/events/studentpostdoc_seminars.html). In addition, you are expected to attend the Cancer Biology Seminar throughout your graduate career (no registration required). The Cancer Biology Seminar, which features local and outside faculty speakers, is held on Wednesdays at 10:30 a.m. in 1345 HSLC. The schedule is posted on the McArdle website (http://www.mcardle.wisc.edu/events/cancerbiology_seminar.htm).

Elective Coursework

Code	Title	Credits
BIOCHEM 601	Protein and Enzyme Structure and Function	2
BIOCHEM/ GENETICS/ MICROBIO 612	Prokaryotic Molecular Biology	3
BIOCHEM/PHMCOL- M/ZOOLOGY 630	Cellular Signal Transduction Mechanisms	3
MICROBIO/M M & I/ PATH-BIO 528	Immunology	3
MICROBIO/ GENETICS 607	Advanced Microbial Genetics	3
MICROBIO/ M M & I 740	Mechanisms of Microbial Pathogenesis	3
PATH 803	Pathogenesis of Major Human Diseases	3
BIOCHEM/ GENETICS/ MD GENET 620	Eukaryotic Molecular Biology	3
BIOCHEM 625	Mechanisms of Action of Vitamins and Minerals	2

CRB 640	Fundamentals of Stem Cell and Regenerative Biology	3
CRB 650	Molecular and Cellular Organogenesis	3
CRB/MEDICINE 701	Cell Signaling and Human Disease	1
CBE/B M E 520	Stem Cell Bioengineering	3
CBE/B M E 783	Design of Biological Molecules	3
PATH 750	Cellular and Molecular Biology/ Pathology	2-3
M M & I/PATH-BIO 750	Host-Parasite Relationships in Vertebrate Viral Disease	3

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://cancerbiology.wiscweb.wisc.edu/wp-content/uploads/sites/503/2018/03/CB-Handbook-2017v1.pdf>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 9 credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree or doctoral degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

With program approval, students are allowed to count no more than 7 credits numbered 300 or above from a UW–Madison undergraduate degree.

UW–Madison University Special

With program approval, students are allowed to count no more than 15 credits of coursework numbered 300 or above taken as a UW–Madison special student. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

PROBATION

A semester GPA below 3.0 or an incomplete grade (I) will result in the student being placed on academic probation. If a semester GPA of 3.0 is not attained or the Incomplete grade is not cleared during the subsequent semester of full-time enrollment, the student may be dismissed from the program or allowed to continue for 1 additional semester based on advisor appeal to the Graduate School.

ADVISOR / COMMITTEE

All students are required to have an advisor. Students must create a certification committee (advisor plus four additional faculty members) by the end of their first year. After passing their preliminary examination, students are required to conduct a progress report meeting with their certification committee each year. Failure to do so may result in a hold being placed on the student's registration.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

All doctoral students must pass their preliminary examination by the end of their second year (August 31). Under special circumstances, a one-semester extension may be granted when justified in writing by the student and advisor.

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

- Bachelor's degree from an accredited U.S. institution, or comparable degree from an international institution, with a major in biology, biochemistry, chemistry, molecular biology, or related area
- Undergraduate GPA of at least 3.0 on the equivalent of the last 60 credit hours OR a master's degree with a minimum cumulative GPA of 3.0
- Basic course background in chemistry, microbiology, biochemistry, genetics, physiology, and molecular biology recommended
- Prior laboratory research

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Articulates, critiques, or elaborates the theories, research methods, and approaches to inquiry or schools of practice in the field of study.
2. Identifies sources and assembles evidence pertaining to questions or challenges in the field of study.
3. Demonstrates understanding of the primary field of study in a historical, social, or global context.

4. Selects and/or utilizes the most appropriate methodologies and practices.
5. Evaluates or synthesizes information pertaining to questions or challenges in the field of study.
6. Communicates clearly in ways appropriate to the field of study.
7. Recognizes and applies principles of ethical and professional conduct.

PEOPLE

Faculty: Alarid (co-director), Loeb (co-director), Ahlquist, Alexander, Arendt, Asimakopoulos, Audhya, Beebe, Bradfield, Bresnick, Burkard, Cryns, Deming, Drinkwater, Evans, Friedl, Friesen, Gould, Griep, Halberg, Harari, Hoffman, Huttenlocher, Jarrard, Johannsen, Kalejta, Kenney, Kimple, Kreeger, Lambert, Lang, Lewis, Marker, McNeel, Mertz, Miyamoto, Morris, Mosher, Rapraeger, Ricke, Rui, Shuler, Sherer, Shull, Striker, Sugden, Tibbetts, Weaver, Wheeler, Xing, Xu, and Zhang. For the most current list of faculty and descriptions of their research interests, the program website (<https://cancerbiology.wisc.edu/faculty-trainers>).

CANCER BIOLOGY, PH.D.

The graduate program in cancer biology offers a course of study and research leading to the Ph.D. degree. Although a master's degree is offered under special circumstances, students are not admitted for a master's degree.

The Cancer Biology Graduate Program was established at the McArdle Laboratory for Cancer Research in 1940 as the first graduate program in the United States to offer a degree in basic cancer research. The program now includes more than 50 faculty trainers from multiple departments including Oncology, Medicine, Human Oncology, Cell and Regenerative Biology, Medical Microbiology and Immunology, and others. This interdepartmental structure offers students remarkably diverse training opportunities that span the entire breadth of cancer biology research from haploid or diploid genetics, viral and chemical carcinogenesis, eukaryotic cell and molecular biology, virology, molecular toxicology, and whole-animal carcinogenesis. Through the graduate curriculum, students are introduced to the body of knowledge that has been derived directly from experiments on the induction, properties, and therapy of cancer, and receive the necessary background to conduct independent research.

Curriculum requirements are designed to be flexible, providing a maximal opportunity for specialization within this multidisciplinary field. Students learn through core and elective courses; by participation in seminars, conferences, and journal clubs related to their specific areas of expertise; and most important, from their research advisors. Students who join the program select research advisors after conducting a minimum of three monthlong rotations in different laboratories during the first semester. After choosing an advisor, students will also create an advisory committee of five faculty members who will provide guidance throughout the process of earning the Ph.D. degree. The average time to complete the Ph.D. is 5.5 years. The program prepares students for careers in teaching and research in academia, government, and industry.

ADMISSIONS

Students seeking admission to the program must complete a bachelor's degree in biology, biochemistry, chemistry, molecular biology, or a related

area from an accredited college or university and should have a grade point average of at least 3.0 (on a 4.0 scale). The background of the student should include basic courses in these areas as well as several advanced courses in chemistry, microbiology, biochemistry, genetics, physiology, and molecular biology. Prior laboratory research experience is highly desirable.

Applicants must submit a completed application online, personal statement (reasons for graduate study), unofficial college transcripts, updated CV/resume (highlighting laboratory experience), and three letters of recommendation.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

The program is committed to ensure continuing financial support for all cancer biology Ph.D. students in good standing. Financial support includes a competitive stipend and tuition remission. All graduate students are also eligible for comprehensive health insurance. Ph.D. students are supported from a variety of different sources including research assistantships from faculty research grants, fellowships, and NIH training grants. There is no teaching requirement for cancer biology students; however, many opportunities exist on campus for those who wish to gain teaching experience.

Students are admitted into the Cancer Biology Program as a Research Assistant (RA) unless they have received a fellowship or training grant.

FINANCIAL INFORMATION

- **Stipend:** All Cancer Biology students are awarded a pretax stipend of \$27,000 for the 2017–18 year (12-month appointment). You will receive your first full paycheck in early October (for part of August and full month of September). Students will receive a paycheck at the beginning of every month going forward.
- **Tuition:** Tuition is remitted. If you receive a tuition bill, you should contact the Program Coordinator immediately. Students will be responsible for any late fees.
- **Segregated Fees and Other Fees:** Each semester, students with a Research Assistant title will be responsible for paying segregated fees and other fees. These fees cover the cost of University Health Services, bus passes, use of the unions, etc. Fees may be paid online through your MyUW Student Center or at the Bursar's Office (Student Services Tower, East Campus Mall, Room 10501). Students will be responsible for paying a \$100 late fee if fee payment is not made by the deadline.

- **Research Assistants (RA)**
 - **Stipend:** RAs are awarded a pretax stipend of \$27,000 for the 2017–18 year (12 month appointment) paid by the advisor.
 - **Tuition:** Remitted.
 - **Segregated Fees & Other Fees:** RAs are responsible for paying segregated and other fees each semester.
 - **Taxes:** Taxes are withheld from monthly paycheck.
- **Fellows/Trainees**
 - **Stipend:** All or the majority of stipend is paid by the fellowship/training grant (if fellowship/training grant funding rate is below the Cancer Biology stipend, it will be supplemented to match the current Cancer Biology stipend rate).
 - **Tuition:** Paid by the fellowship/training grant.
 - **Segregated Fees:** Paid by the fellowship/training grant.
 - **Taxes:** Often taxes and social security are not automatically withheld from a Trainee/Fellow’s paycheck. Trainees or Fellows are responsible for paying the necessary taxes directly to the Internal Revenue Service (<http://www.irs.gov>) and the Wisconsin Department of Revenue (<https://www.revenue.wi.gov/Pages/home.aspx>). Most students file quarterly estimated tax payments; failure to do so can result in tax penalties. The University of Wisconsin Service Center has put together a website with general information about tax filing (<http://uwservice.wisc.edu/tax/filing-resources.php>).

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Requirement	51 credits
Minimum Residence Credit Requirement	32 credits
Minimum Graduate Coursework Requirement	Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university’s Course Guide (https://registrar.wisc.edu/course-guide/).
Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	Students must earn a B or above in the following courses, otherwise the course must be repeated: ONCOLOGY 703 Carcinogenesis and Tumor Cell Biology , ONCOLOGY 715 Ethics in Science, ONCOLOGY 725 Readings in Cancer Biology, and ONCOLOGY 735 Current Problems in Cancer Biology.

Assessments and Examinations	All doctoral students must pass an oral preliminary examination. All requirements for a doctoral degree, except for the dissertation, must be completed at this time. Six months before the final oral defense, all doctoral students must present a semifinal dissertation proposal to their committee for approval. All doctoral students must pass a final oral defense of their doctoral dissertation and subsequently deposit the dissertation in the Graduate School.
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Language Requirements	No language requirements.
Doctoral Minor / Breadth Requirements	The Cancer Biology Program does not require students to complete a minor; however, the option is available to those who wish to do so. Acceptance of the minor requires the approval of the Advisor and respective department in which the minor is administered. If you wish to complete a minor, you must inform the Program Coordinator of your minor option selection by the end of the first year. The minor must be approved by your Certification Committee and must be completed along with the major course requirements by the end of your second year. Please note that minor coursework may count towards the elective course requirements.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS MODE OF INSTRUCTION

Face to Face	Evening/Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

REQUIRED COURSES

The curriculum for Cancer Biology is designed to introduce you to research related to the induction, properties, and therapy of cancer and to ensure that you have the necessary background in one or more areas of related, fundamental science to enable you to do original research. Courses are drawn from the Department of Oncology as well as various

related departments, including Bacteriology, Biochemistry, Biomolecular Chemistry, Chemistry, Genetics, Human Oncology, Medical Microbiology and Immunology, Pathology and Laboratory Medicine, and Pharmacology.

The Graduate School at UW-Madison requires PhD students to complete a minimum of 51 credits in order to obtain a PhD Degree. These credits are fulfilled via core curriculum courses, 990 research, and electives. Courses numbered below 300, audit, and pass/fail do not satisfy the minimum requirement. It is suggested that you take approximately 2 courses per semester with the remaining credits being 990 research. All courses must be completed by the end of your second year, before completing the Preliminary Exam.

Code	Title	Credits
ONCOLOGY/ MICROBIO/ PL PATH 640	General Virology-Multiplication of Viruses (recommended)	3
ONCOLOGY 703	Carcinogenesis and Tumor Cell Biology (required)	3
ONCOLOGY 715	Ethics in Science (required)	1
ONCOLOGY 735	Current Problems in Cancer Biology (required)	2
ONCOLOGY 901	Seminar (presentation) ¹	1
ONCOLOGY 990	Research (required)	1-12

¹ Beginning in your second year, you will be required to give an annual, formal presentation in the Cancer Biology Student/Postdoc Seminar Series. You will register for ONCOLOGY 901 Seminar during the semester in which you present. Your seminars will be recorded and you will receive feedback from the seminar course instructor to help improve your public speaking and presentation skills. **Attendance at this seminar series is required.** The schedule is posted on the McArdle website (<https://mcardle.wisc.edu/news-events/cancer-biology-studentpostdoc-seminar-series>).

In addition, you are expected to attend the Cancer Biology Seminar throughout your graduate career (no registration required).

The Cancer Biology Seminar, which features local and outside faculty speakers, is held on Wednesdays at 10:30 a.m. in 1345 HSLC. The schedule is posted on the McArdle website (http://www.mcardle.wisc.edu/events/cancerbiology_seminar.htm).

Elective Coursework

Code	Title	Credits
BIOCHEM 601	Protein and Enzyme Structure and Function	2
BIOCHEM/ GENETICS/ MICROBIO 612	Prokaryotic Molecular Biology	3
BIOCHEM/PHMCO- M/ZOOLOGY 630	Cellular Signal Transduction Mechanisms	3
MICROBIO/M M & I/ PATH-BIO 528	Immunology	3
MICROBIO/ GENETICS 607	Advanced Microbial Genetics	3
MICROBIO/ M M & I 740	Mechanisms of Microbial Pathogenesis	3
PATH 803	Pathogenesis of Major Human Diseases	3

BIOCHEM/ GENETICS/ MD GENET 620	Eukaryotic Molecular Biology	3
BIOCHEM 625	Mechanisms of Action of Vitamins and Minerals	2
CRB 640	Fundamentals of Stem Cell and Regenerative Biology	3
CRB 650	Molecular and Cellular Organogenesis	3
CRB/MEDICINE 701	Cell Signaling and Human Disease	1
CBE/B M E 520	Stem Cell Bioengineering	3
CBE/B M E 783	Design of Biological Molecules	3
PATH 750	Cellular and Molecular Biology/ Pathology	2-3
M M & I/PATH- BIO 750	Host-Parasite Relationships in Vertebrate Viral Disease	3

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://cancerbiology.wisc.edu/policyandprogress>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 9 credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree or doctoral degree is not allowed to satisfy requirements.

UW-Madison Undergraduate

With program approval, students are allowed to count no more than 7 credits numbered 300 or above from a UW-Madison undergraduate degree.

UW-Madison University Special

With program approval, students are allowed to count no more than 15 credits of coursework numbered 300 or above taken as a UW-Madison Special student. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

PROBATION

A semester GPA below 3.0 or an incomplete grade (I) will result in the student being placed on academic probation. If a semester GPA of 3.0 is not attained or the Incomplete grade is not cleared during the subsequent semester of full-time enrollment, the student

may be dismissed from the program or allowed to continue for 1 additional semester based on advisor appeal to the Graduate School.

ADVISOR / COMMITTEE

All students are required to have an advisor. Students must create a certification committee (advisor plus four additional faculty members) by the end of their first year. After passing their preliminary examination, students are required to conduct a progress report meeting with their certification committee each year. Failure to do so may result in a hold being placed on the student's registration.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

All doctoral students must pass their preliminary examination by the end of their second year (August 31). Under special circumstances, a one-semester extension may be granted when justified in writing by the student and advisor.

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

- Bachelor's degree from an accredited U.S. institution, or comparable degree from an international institution, with a major in biology, biochemistry, chemistry, molecular biology, or related area
- Undergraduate GPA of at least 3.0 on the equivalent of the last 60 credit hours OR a master's degree with a minimum cumulative GPA of 3.0
- Basic course background in chemistry, microbiology, biochemistry, genetics, physiology, and molecular biology recommended
- Prior laboratory research

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Articulates research problems, potentials, and limits with respect to theory, knowledge, or practice within the field of study.

2. Formulates ideas, concepts, designs, and/or techniques beyond the current boundaries of knowledge within the field of study.

3. Creates research, scholarship, or performance that makes a substantive contribution.

4. Demonstrates breadth within their learning experiences.

5. Advances contributions of the field of study to society.

6. Communicates complex ideas in a clear and understandable manner.

7. Fosters ethical and professional conduct.

PEOPLE

Faculty: Alarid (co-director), Loeb (co-director), Ahlquist, Alexander, Arendt, Asimakopoulos, Audhya, Beebe, Bradfield, Bresnick, Burkard, Cryns, Deming, Drinkwater, Evans, Friedl, Friesen, Gould, Griep, Halberg, Harari, Hoffman, Huttenlocher, Jarrard, Johannsen, Kalejta, Kenney, Kimple, Kreeger, Lambert, Lang, Lewis, Marker, McNeel, Mertz, Miyamoto, Morris, Mosher, Rapraeger, Ricke, Rui, Shuler, Sherer, Shull, Striker, Sugden, Tibbetts, Weaver, Wheeler, Xing, Xu, and Zhang. For the most current list of faculty and descriptions of their research interests, the program website (<https://cancerbiology.wisc.edu/faculty-trainers>).

OPERATIONS AND INFORMATION MANAGEMENT

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE PROFESSIONAL/CERTIFICATES

- Business: Operations and Technology Management, M.S. (p. 1108)
- Business: Operations and Technology Management, MBA (p. 1110)

PEOPLE

Faculty: Professors Morris (chair), De Croix, Hausch, Siemsen, Wemmerlov; Associate Professors Finster, Kim, Lazimy; Assistant Professors Bavafa, Tong

BUSINESS: OPERATIONS AND TECHNOLOGY MANAGEMENT, M.S.

Founded in 1900, the School of Business established one of the first five business programs in the nation. That entrepreneurial spirit remains strong.

As a student in the School of Business, you will find yourself inspired by peers, staff, alumni, business leaders, and world-renowned faculty who are focused, collaborative, and engaged in every aspect of the student experience. You will join a highly ranked program that equips you to meet both academic and career challenges. Employers value School of Business graduates because of the comprehensive preparation this learning environment provides. Graduates possess highly sought-after general management and specialized expertise in business.

Joining collaborative, inspiring, trustworthy, and progressive WSB alumni, Business Badgers graduate prepared to lead their organizations to success and transform the world of business. Together Forward!

ADMISSIONS

This master's program is offered for work leading to the Ph.D. Students may not apply directly for the master's, and should instead see the admissions information for the Ph.D. (p. 212)

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum 30 credits

Credit Requirement

Minimum 16 credits

Residence Credit Requirement

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall 3.00 GPA required.

Graduate GPA Requirement

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Contact the program for information on required assessments and examinations.

Language Requirements Contact the program for information on any language requirements.

REQUIRED COURSES

This master's degree is earned by students on the way to earning the Ph.D. in Business. Refer to the curricular requirements for specific tracks within the Business Ph.D. (p. 213) for required courses.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 9 credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

With program approval and payment of the difference in tuition (between special and graduate tuition), students are allowed to count no more than 9 credits of coursework numbered 700 or above taken as a UW–Madison University Special student. Coursework earned five or more years prior to the master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Students must be enrolled full-time.

PROFESSIONAL DEVELOPMENT**GRADUATE SCHOOL RESOURCES**

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Apply foundational theories and knowledge from core management and engineering disciplines to make effective business decisions

based on cross-functional thinking whether in general operations and technology management or in a chosen specialty area (such as healthcare operations or technology product management).

2. Apply core operations principles about processes and technologies to the design, justification, operation, assessment, and improvement of organizational and system performance from both financial and nonfinancial perspectives.

3. Effectively lead and manage organizational and technological change that supports and improves business processes and creates value for customers.

4. Develop enduring networks and relationships with industry partners.

PEOPLE

Faculty: Professors Morris (chair), De Croix, Hausch, Kim, Siemsen, Veeramani, Wemmerlov; Associate Professors Lazimy; Assistant Professors Batt, Bavafa, Long, Tong

BUSINESS: OPERATIONS AND TECHNOLOGY MANAGEMENT, MBA

Founded in 1900, the School of Business established one of the first five business programs in the nation. That entrepreneurial spirit remains strong.

As a student in the School of Business, you will find yourself inspired by peers, staff, alumni, business leaders, and world-renowned faculty who are focused, collaborative, and engaged in every aspect of the student experience. You will join a highly ranked program that equips you to meet both academic and career challenges. Employers value School of Business graduates because of the comprehensive preparation this learning environment provides. Graduates possess highly sought-after general management and specialized expertise in business.

Joining collaborative, inspiring, trustworthy, and progressive WSB alumni, Business Badgers graduate prepared to lead their organizations to success and transform the world of business. Together Forward!

Developing leaders who create business value, OTM is an MBA specialization suited for those seeking advanced positions as consultants, analysts, product or service managers, project leaders, business developers, or operations, information technology and supply chain managers—while priming themselves for senior leadership roles. OTM students gain critical business skills applicable to both service organizations and manufacturing firms. The OTM MBA is supported by the Erdman Center for Operations and Technology Management. See the program website (<https://wsb.wisc.edu/programs-degrees/mba/full-time/career-specializations/operations-technology-management>) for more information.

ADMISSIONS

Admission consideration for the MBA program requires a four-year undergraduate degree or the equivalent, in any discipline, from an accredited institution. The School of Business seeks a minimum of two years of full-time work experience along with a strong undergraduate performance. In addition to academic credentials, GMAT scores, and

work experience, personal achievements, motivation, communication skills (written and oral), international exposure, and recommendation letters are considered in the admission process at both the master's and doctoral levels.

Note: The Graduate Management Admission Test (GMAT), taken within five years of the starting term, is required of all applicants to the School of Business; the Graduate Record Exam (GRE) may be an acceptable alternative on a case by case basis. All applicants whose native language is not English must submit scores from the Test of English as a Foreign Language (TOEFL), the Pearson Test of English (PTE), Intensive English as a Second Language (IELTS), or show the completion of an Interlink program. A minimum iBT TOEFL score of 100 or equivalent, obtained within two years of the intended start term, is required. International applicants who have completed a degree at an institution whose primary language of instruction was English may request a waiver of this requirement on the application.

HOW TO APPLY

Students interested in Business degrees do not apply through the Graduate School application system and should instead refer to the School of Business Admissions page. (<https://wsb.wisc.edu/programs-degrees/mba/full-time/admissions>)

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Prospective students should see the program website for funding information.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules.

Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum 30 credits

Credit Requirement

Minimum 16 credits

Residence Credit Requirement

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Contact the program for information on required assessments and examinations.

Language Requirements Contact the program for information on any language requirements.

REQUIRED COURSES

Code	Title	Credits
Year One		
<i>Fall Semester</i>		
GEN BUS 704	Data to Decisions	3
ACCT I S 700	Financial Accounting	3
FINANCE 700	Introduction to Financial Management	3
M H R 706	Leading and Working in Teams	1
MARKETNG 700	Marketing Management	3
ACCT I S 710	Managerial Accounting	3
<i>Spring Semester</i>		
M H R 723	Business Strategy	3
OTM 700	Operations Management	3

OTM 732	Economics for Managers	3
OTM 765	Contemporary Topics	3
Elective		3
Year Two		
<i>Fall Semester</i>		
GEN BUS 710	Ethics, Integrity and Society	1
OTM 758	Managing Technological and Organizational Change	3
OTM 751	Service Operations Management	3
Electives		9
<i>Spring Semester</i>		
Electives		9
Total Credits		56

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

No credits of prior coursework are allowed to satisfy requirements.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

No credits of prior coursework are allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor.

An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Students must be enrolled as full-time.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Apply foundational theories and knowledge from core management and engineering disciplines to make effective business decisions based on cross-functional thinking whether in general operations and technology management or in a chosen specialty area (such as healthcare operations or technology product management).
2. Apply core operations principles about processes and technologies to the design, justification, operation, assessment, and improvement of organizational and system performance from both financial and nonfinancial perspectives.
3. Effectively lead and manage organizational and technological change that supports and improves business processes and creates value for customers.
4. Develop enduring networks and relationships with industry partners.

PEOPLE

Faculty: Professors Morris (chair), De Croix, Hausch, Kim, Siemsen, Veeramani, Wemmerlov; Associate Professors Lazimy; Assistant Professors Batt, Bavafa, Long, Tong

ACCREDITATION

ACCREDITATION

AACSB International—The Association to Advance Collegiate Schools of Business (<http://www.aacsb.edu>)

Accreditation status: Accredited. Next accreditation review: 2021–2022.

PATHOLOGY

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Cellular and Molecular Pathology, M.S. (p. 1113)
- Cellular and Molecular Pathology, Ph.D. (p. 1115)

PEOPLE

Faculty: Ahmad, Alexander, Allen-Hoffmann, Andes, Arendt, Asimakopoulos, Attie, Atwood, Bendlin, Bresnick, Broman, Burger, Burkard, Burlingham, Bushman, Capitini, Coon, Currie, Deming, Denlinger, Djamali, Emborg, Engin, Evans, Fabry, Jing Fan, Fleming, Friedl, Friedrich, Gamm, Ge, Gern, Gibson, Golos, Greenspan, Gumperz, Guo, Halberg, Hematti, Huttenlocher, Iyer, Jones, Junsu Kang, Kenney, Kimble, Kimple, Klein, Knoll, Kuo, Lakkaraju, Lammings, Lang, Lee, Lewis, Liu, Lloyd, Loeb, Messing, Mezrich, Nett, Nickells, D. O'Connor, S. O'Connor, Okonkwo, Otto, Pepperell, Peters, Puglielli, Rapraeger, Rey, Roy, Rui, Sandor, Samanta, Sauer, Seroogy, Sheehan, Sheibani, Shusta, Shelef, Slukvin, J. Smith, Sondel, Sridharan, Sugden, Suresh, Suzuki, Svaren, Talaat, Taylor, Thorne, Vermuganti, Watters, Welham, Wheeler, Xu, Yoshino, Zamanian, Su-chun Zang, Zhao, W. Zhong

CELLULAR AND MOLECULAR PATHOLOGY, M.S.

The graduate program in cellular and molecular pathology (CMP) is a joint venture of the UW–Madison Department of Pathology and the School of Medicine and Public Health (SMPH). This interdisciplinary training environment, embedded in an exciting and challenging basic and clinical translational research context, offers a high level of intellectual stimulation for predoctoral training. The CMP curriculum is novel at the university, providing integrated training in fundamental concepts of modern pathobiology with an emphasis on biochemical, cellular and molecular approaches, and providing rigorous in-depth bench-level research training in understanding the fundamental bases of diseases. Trainees and trainers participate in rigorous pathobiology courses and activities, and are offered in-depth research training in the pathobiology of cancer, nervous and immune system diseases, and signal transduction in basic disease mechanisms.

ADMISSIONS

This master's program is offered for work leading to the Ph.D. Students may not apply directly for the master's, and should instead see the admissions information for the Ph.D. (p. 1115)

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum	30 credits
Credit Requirement	
Minimum	16 credits
Residence Credit Requirement	

Minimum Graduate Coursework Requirement Half of degree coursework (16 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements Students must maintain a B average or better in all graduate courses.

Assessments and Examinations Students must complete all required courses including PATH 809. Students must write a master thesis and defend it in front of their Advisory Committee. The M.S. thesis does not need to be published.

Language Requirements No language requirements.

REQUIRED COURSES

Code	Title	Credits
Required Courses		
<i>Continuous Enrollment</i>		
PATH 900	Seminar (every semester enrolled)	0
PATH 901	Student Seminar / Journal Club (every semester enrolled)	1
PATH 990	Research (every semester enrolled)	1-8
<i>Coursework</i>		
PATH 750	Cellular and Molecular Biology/ Pathology (spring semester, first year in program)	3
PATH 802	Histopathology for Translational Scientists (fall semester, first year in program)	3
PATH 803	Pathogenesis of Major Human Diseases (fall semester, second year in program)	3
PATH 809	Molecular Mechanisms of Disease (spring semester, second year in program)	2
Choose one of the following Statistics courses:		4
STAT/F&W ECOL/ HORT 571	Statistical Methods for Bioscience I	
STAT/F&W ECOL/ HORT 572	Statistical Methods for Bioscience II	
Choose one of the following Ethics courses: ¹		
ONCOLOGY 675	Advanced or Special Topics in Cancer Research (Topic: Appropriate Conduct of Science)	
SURG SCI 812	Research Ethics and Career Development	
MED HIST/CRB 615	Regenerative Medicine Ethics and Society	3
Elective Courses		

Within the 16 required credits, students will take one elective course. This course is chosen by the student and the Ph.D. thesis committee. The goal of the elective course is for students to acquire additional broad knowledge in either pathology or their major area of research. For the elective course, students may take one of the following:

PATH 751 Cell and Molecular Biology of Aging

PATH 709

Equivalent course approved by the Ph.D. thesis committee

¹ Students in the CMP program are required to take an ethics course and receive instruction in the Responsible Conduct of Research (RCR), as stated below by the NIH:

"The NIH requires that all undergraduate and graduate students as well as postdoctoral fellows receiving support through any NIH training, career development award, research education grant, or dissertation research grant must receive instruction in RCR. At least eight hours of face-to-face instruction is required; online education alone is insufficient. Instruction must be undertaken at least once during each career stage, and no less than once every four years."

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<http://www.cmp.wisc.edu/sites/default/files/CMP-Student-Handbook.pdf>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 7 credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

Up to 7 credits numbered 300 or above from a UW–Madison undergraduate career are allowed to count toward the degree with committee approval. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison University Special

With program approval, students are allowed to count no more than 7 credits of coursework numbered 300 or above taken as UW–Madison University Special students. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

ADVISOR / COMMITTEE

All students are required to conduct a yearly progress report meeting with their advisor, scheduled by December 17 and completed by April 30. Failure to do so will result in a hold being placed on the student's registration.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

All students receive an annual stipend for \$25,000 (2013–14 rate) for a 12-month appointment. It is the intention of the program to continue to award this stipend as a research assistantship throughout the student's Ph.D. studies. During rotation the stipend will be funded by the department. Once the student has selected a lab, the primary investigator will fund the student from grant funding. To receive the stipend, the student must maintain full-time status of 8–12 credits per semester.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Gain a better understanding the basic mechanisms of disease at the level of cell, organ, and body, as well as the morphologic expression patterns of selected common specific disease processes.

2. Articulates, critiques, or elaborates the theories, research methods, and approaches to inquiry or schools of practice in the field of study.

3. Identifies sources and assembles evidence pertaining to questions or challenges in the field of study.

4. Demonstrates understanding of the primary field of study in a historical, social, or global context.

5. Selects and/or utilizes the most appropriate methodologies and practices.

6. Evaluates or synthesizes information pertaining to questions or challenges in the field of study.

7. Communicates clearly in ways appropriate to the field of study.

8. Commit to increase professional growth and knowledge, to attend educational programs and to personally contribute expertise to meetings and journals.

9. Recognizes and applies principles of ethical and professional conduct.

PEOPLE

Faculty: Ahmad, Alexander, Allen-Hoffmann, Andes, Arendt, Asimakopoulos, Attie, Atwood, Bendlin, Bresnick, Broman, Burger, Burkard, Burlingham, Bushman, Capitini, Coon, Currie, Deming, Denlinger, Djamali, Emborg, Engin, Evans, Fabry, Jing Fan, Fleming, Friedl, Friedrich, Gamm, Ge, Gern, Gibson, Golos, Greenspan, Gumperz, Guo, Halberg, Hematti, Huttenlocher, Iyer, Jones, Junsu Kang, Kenney, Kimble, Kimple, Klein, Knoll, Kuo, Lakkaraju, Lamming, Lang, Lee, Lewis, Liu, Lloyd, Loeb, Messing, Mezrich, Nett, Nickells, D. O'Connor, S. O'Connor, Okonkwo, Otto, Pepperell, Peters, Puglielli, Rapraeger, Rey, Roy, Rui, Sandor, Samanta, Sauer, Seroogy, Sheehan, Sheibani, Shusta, Shelef, Slukvin, J. Smith, Sondel, Sridharan, Sugden, Suresh, Suzuki, Svaren, Talaat, Taylor, Thorne, Vermuganti, Watters, Welham, Wheeler, Xu, Yoshino, Zamanian, Su-chun Zang, Zhao, W. Zhong

CELLULAR AND MOLECULAR PATHOLOGY, PH.D.

The graduate program in cellular and molecular pathology (CMP) is a joint venture of the UW–Madison Department of Pathology and the School of Medicine and Public Health (SMPH). This interdisciplinary training environment, embedded in an exciting and challenging basic and clinical translational research context, offers a high level of intellectual stimulation for predoctoral training. The CMP curriculum is novel at the university, providing integrated training in fundamental concepts of modern pathobiology with an emphasis on biochemical, cellular and molecular approaches, and providing rigorous in-depth bench-level research training in understanding the fundamental bases of diseases. Trainees and trainers participate in rigorous pathobiology courses and activities, and are offered in-depth research training in the pathobiology of cancer, nervous and immune system diseases, and signal transduction in basic disease mechanisms.

ADMISSIONS

Applications to the CMP program are submitted in the fall of the year prior to your anticipated start date in the program. Students are then accepted into the CMP program in the spring of each year through a competitive application process that is administered by UW–Madison. Applications are due by December 1 for admission consideration the following fall. See more about how to apply on the program's website (<http://www.cmp.wisc.edu/prospective/howtoapply>).

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Prospective students should see the program website (<http://www.cmp.wisc.edu/prospective/financial-support>) for funding information.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich,

interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 51 credits

Minimum Residence Credit Requirement 32 credits

Minimum Graduate Coursework Requirement Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements Students must maintain a B average or better in all graduate courses.

Assessments and Examinations Students must complete all required courses including PATH 809. They must pass their Prelim B exam after their second year of graduate school. Students must defend their Ph.D. thesis within five years of completion of Prelim Exam B.

Language Requirements No language requirements.

Doctoral Minor/Breadth Requirements For interdisciplinary or minor requirements, see <http://www.cmp.wisc.edu/current/phd-interdisciplinary-minor>.

REQUIRED COURSES

Code	Title	Credits
Required Courses		
<i>Continuous Enrollment</i>		
PATH 900	Seminar (every semester enrolled)	0
PATH 901	Student Seminar / Journal Club (every semester enrolled)	1
PATH 990	Research (every semester enrolled)	1-8
<i>Coursework</i>		
PATH 750	Cellular and Molecular Biology/ Pathology (spring semester, first year in program)	3
PATH 802	Histopathology for Translational Scientists (fall semester, first year in program)	3
PATH 803	Pathogenesis of Major Human Diseases (fall semester, second year in program)	3

PATH 809	Molecular Mechanisms of Disease (spring semester, second year in program)	2
Choose one of the following Statistics courses:		4
STAT/F&W ECOL/ HORT 571	Statistical Methods for Bioscience I	
STAT/F&W ECOL/ HORT 572	Statistical Methods for Bioscience II	
Choose one of the following Ethics courses: ¹		
ONCOLOGY 675	Advanced or Special Topics in Cancer Research (Topic: Appropriate Conduct of Science)	
SURG SCI 812	Research Ethics and Career Development	
MED HIST/CRB 615	Regenerative Medicine Ethics and Society	3

Elective Courses

Within the 16 required credits, students will take one elective course. This course is chosen by the student and the Ph.D. thesis committee. The goal of the elective course is for students to acquire additional broad knowledge in either pathology or their major area of research. For the elective course, students may take one of the following:

PATH 751	Cell and Molecular Biology of Aging
PATH 709	
Equivalent course approved by the Ph.D. thesis committee	

¹ Students in the CMP program are required to take an ethics course and receive instruction in the Responsible Conduct of Research (RCR), as stated below by the NIH:

"The NIH requires that all undergraduate and graduate students as well as postdoctoral fellows receiving support through any NIH training, career development award, research education grant, or dissertation research grant must receive instruction in RCR. At least eight hours of face-to-face instruction is required; online education alone is insufficient. Instruction must be undertaken at least once during each career stage, and no less than once every four years."

POLICIES

GRADUATE SCHOOL POLICIES

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MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

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PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 7 credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW-Madison Undergraduate

Up to 7 credits numbered 300 or above from a UW-Madison undergraduate career are allowed to count toward the degree with committee approval. Coursework earned five or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW-Madison University Special

With program approval, students are allowed to count no more than 7 credits of coursework numbered 300 or above taken as UW-Madison University Special students. Coursework earned five or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

ADVISOR / COMMITTEE

All students are required to conduct a yearly progress report meeting with their advisor, scheduled by December 17 and completed by April 30. Failure to do so will result in a hold being placed on the student's registration.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

All students receive an annual stipend for \$25,000 (2013–14 rate) for a 12-month appointment. It is the intention of the program to continue to award this stipend as a research assistantship throughout the student's Ph.D. studies. During rotation the stipend will be funded by the department. Once the student has selected a lab, the primary investigator will fund the student from grant funding. To receive the stipend, the student must maintain full-time status of 8–12 credits per semester.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Gain a better understanding of the basic mechanisms of disease at the level of cell, organ, and body, as well as the morphologic expression patterns of selected common specific disease processes.
2. Articulates research problems, potentials, and limits with respect to theory, knowledge, and practice within the field of study.
3. Formulates ideas, concepts, designs, and techniques beyond the current boundaries of knowledge within the chosen field of study.
4. Creates research and scholarship that makes a substantive contribution.
5. Demonstrates breadth within their learning experiences.
6. Advances contributions of the field of study to society.
7. Communicates complex ideas in a clear and understandable manner.
8. Commit to increase professional growth and knowledge, to attend educational programs and to personally contribute expertise to meetings and journals.
9. Fosters ethical and professional conduct.

PEOPLE

Faculty: Ahmad, Alexander, Allen-Hoffmann, Andes, Arendt, Asimakopoulos, Attie, Atwood, Bendlin, Bresnick, Broman, Burger, Burkard, Burlingham, Bushman, Capitini, Coon, Currie, Deming, Denlinger, Djamali, Emborg, Engin, Evans, Fabry, Jing Fan, Fleming, Friedl, Friedrich, Gamm, Ge, Gern, Gibson, Golos, Greenspan, Gumperz, Guo, Halberg, Hematti, Huttenlocher, Iyer, Jones, Junsu Kang, Kenney, Kimble, Kimple, Klein, Knoll, Kuo, Lakkaraju, Lamming, Lang, Lee, Lewis, Liu, Lloyd, Loeb, Messing, Mezrich, Nett, Nickells, D. O'Connor, S. O'Connor, Okonkwo, Otto, Pepperell, Peters, Puglielli, Rapraeger, Rey, Roy, Rui, Sandor, Samanta, Sauer, Seroogy, Sheehan, Sheibani, Shusta, Shelef, Slukvin, J. Smith, Sondel, Sridharan, Sugden, Suresh, Suzuki, Svaren, Talaat, Taylor, Thorne, Vermuganti, Watters, Welham, Wheeler, Xu, Yoshino, Zamanian, Su-chun Zang, Zhao, W. Zhong

PHARMACY—SCHOOL-WIDE

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Pharmaceutical Sciences, Doctoral Minor (p. 1118)
- Pharmaceutical Sciences, M.S. (p. 1118)
- Pharmaceutical Sciences, Ph.D. (p. 1121)
- Pharmacy, M.S. (p. 1124)
- Social and Administrative Sciences in Pharmacy, M.S. (p. 1127)
- Social and Administrative Sciences in Pharmacy, Ph.D. (p. 1131)

PHARMACEUTICAL SCIENCES, DOCTORAL MINOR

ADMISSIONS

Candidates for the minor should have an undergraduate degree in biochemistry, chemistry, engineering, or one of the biological or medical sciences. A minimum graduate GPA of 3.0 (on a 4.0 scale) is required.

Minor Advisor: The School of Pharmacy's Assistant Dean for Graduate Studies will serve initially as the minor advisor, with the opportunity to select a Division of Pharmaceutical Sciences faculty member (<https://pharmacy.wisc.edu/psd/faculty-research>) as the minor advisor if appropriate. The minor advisor will help the student select coursework appropriate for the student's minor program.

REQUIREMENTS

A minimum of 9 credits must be earned in coursework selected from 600/700-level courses offered by faculty in the Division of Pharmaceutical Sciences (http://guide.wisc.edu/courses/phm_sci). Any 600-level course selected must be a "graduate"-designated course.

Students must maintain a cumulative average of B or better in all minor courses, with no grade lower than BC. Courses must be graded (A–F); that is, courses taken pass-fail, satisfactory-unsatisfactory, or for audit **may not be used** toward Minor Option A in Pharmaceutical Sciences.

The student must complete the minor coursework by the time they are ready for their preliminary examination in their major program.

The minor advisor is authorized to sign the preliminary warrant in the student's major program if the minor requirements have been met.

PHARMACEUTICAL SCIENCES, M.S.

The Division of Pharmaceutical Sciences (<https://pharmacy.wisc.edu/psd>) does not currently accept applications for a terminal master's in pharmaceutical sciences. This master's program is offered for work leading to the Ph.D. Students may not apply directly for the master's, and should instead see the information about the Ph.D (p. 1121).

ADMISSIONS

This master's program is offered for work leading to the Ph.D. Students may not apply directly for the master's, and should instead see the admissions information for the Ph.D. (p. 1121)

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Financial support is provided to all graduate students in pharmaceutical sciences through a combined mechanism of fellowships, teaching assistantships, research assistantships, and project assistantships. Funding packages for first-year students in the Ph.D. program are provided by the School of Pharmacy and consist of a mixture of fellowships and/or teaching assistant support. In addition, first-year students earn \$1500 in flexible funds to aid in the transition to Madison. After the first academic year, students are supported by their thesis advisor through research assistantship or teaching assistantship appointments. All students receive a stipend (the recommended minimum level for students in the division is \$24,000 for 2015–16), full tuition remission (waiver), and reasonably priced, comprehensive health insurance for the duration of their Ph.D. studies, if they retain good academic standing and a faculty advisor.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich,

interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements Candidates will be dropped from the program if they receive more than 7 credits of grades at the BC level or lower. This applies to formal courses and research credits.

Assessments and Examinations The program expects the M.S. candidate to engage in a research project of a scope appropriate to the time devoted to earning the degree. The results of the research must be described in an M.S. thesis. The thesis must be both presented and defended before the student's M.S. thesis committee.

Language Requirements No language requirements.

REQUIRED COURSES

Code	Title	Credits
PHM SCI 780	Principles of Pharmaceutical Sciences	3

Select at least two of the following core courses:

PHM SCI 768	Pharmacokinetics	
PHM SCI 786	Natural Product Synthesis, Biosynthesis and Drug Discovery	
BIOCHEM/ PHM COL-M/ ZOOLOGY 630	Cellular Signal Transduction Mechanisms	

Research ethics/responsible conduct of research course	1
At least one additional graduate course in pharmaceutical sciences or in a field related to one's research (field choice is at the discretion of the thesis advisor)	3
Complete a Research course (PHM SCI 718-PHM SCI 990)	1-12

PHM SCI 931	Pharmaceutical Sciences Seminar (required every fall term during enrollment as a graduate student in the program)	1
PHM SCI 932	Pharmaceutical Sciences Seminar (required every spring during enrollment as a graduate student in the program)	1
Total Credits		10-21

Thesis advisors have the option to require additional courses beyond the minimum requirements listed above.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://pharmacy.wisc.edu/graduate-handbook-pharmaceutical-sciences>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 9 credits of graduate coursework from other institutions (the student must have graduate student status on the other institution's transcript at the time the courses were taken). coursework should be presented to the SoP graduate dean in the first semester of enrollment for consideration. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

With program approval, students are allowed to count no more than 7 credits of UW–Madison courses numbered 500 or above (earned as a UW–Madison undergraduate) toward the M.S. degree. Coursework should be presented to the SoP graduate dean in the first semester of enrollment for consideration. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison University Special

With program approval, students are allowed to count no more than 9 credits of coursework numbered 500 or above taken as a UW–Madison special student. coursework should be presented to the SoP graduate dean in the first semester of enrollment for consideration. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

ADVISOR / COMMITTEE

Students are required to maintain a pharmaceutical sciences faculty member as an M.S. advisor through the duration of their studies. Typically a permanent advisor is found by the end of one's first semester.

An M.S. thesis committee in the Pharmaceutical Sciences Division (PSD) consists of at least three graduate faculty members of the PSD (one of whom is the student's thesis advisor).

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence; that coursework may not count toward Graduate School credit requirements.

OTHER

First-year students are typically offered fellowships and School of Pharmacy teaching assistantships in their initial two semesters. Funding as research assistants is assumed by the student's principal investigator/thesis advisor in the first summer. Subsequently (year 2 and beyond), students are funded by RA-ships, TA-ships and via other extramural funding (fellowship) support.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Demonstrate critical knowledge and in-depth understanding of principles in the student's area of expertise.
2. Identify important research questions, formulate testable hypotheses, and design experiments to test those hypotheses.

3. Conduct original research that contributes to the student's field of study.
4. Communicate scientific knowledge and research results effectively to a range of audiences.
5. Demonstrates breadth within their learning experiences.
6. Advances contributions of the field of study to society.
7. Apply ethical principles in conducting scientific research.

PHARMACEUTICAL SCIENCES, PH.D.

The Division of Pharmaceutical Sciences (<https://pharmacy.wisc.edu/psd>) at the School of Pharmacy offers the doctor of philosophy (Ph.D.) degree in pharmaceutical sciences. The program provides a rigorous background in a range of scientific disciplines that are critical to the success of the next generation of pharmaceutical scientists. The program's interdisciplinary training combines pharmaceutically relevant aspects of classical disciplines such as chemistry, biology, and engineering. Students earn a Ph.D. in Pharmaceutical Sciences, concentrating in one of three research cores: **Drug Discovery**, **Drug Action**, or **Drug Delivery**. Extensive communication and collaboration occur between these cores, mirroring the importance of interdisciplinary research teams in the pharmaceutical field.

Research in Drug Discovery (<https://pharmacy.wisc.edu/psd/drug-discovery-core>) focuses on areas related to medicinal chemistry, such as small molecule development, natural products isolation and characterization, organic synthesis, chemical biology, and rational drug design.

Drug Action (<https://pharmacy.wisc.edu/psd/drug-action-core>) focuses on areas related to pharmacology, toxicology, cellular differentiation, development, and disease. Interests include the impact of drugs and toxins on biological systems, mechanisms of normal biology, and mechanisms of disease. These are studied at the cellular, genetic, molecular, and biochemical levels using diverse model systems.

Drug Delivery (<https://pharmacy.wisc.edu/psd/drug-delivery-core>) (pharmaceutics) emphasizes principles in physical chemistry and drug transport, aiming for advances in formulation, drug targeting, and multi-modal therapy. Delivery research includes the solid-state chemistry of drugs, nano-pharmacy, biocompatibility, molecular recognition, computational chemistry, pharmacokinetics, and molecular imaging.

The UW–Madison Pharmaceutical Sciences Division has been recognized for its research productivity, extramural funding support, publication record and teaching. The School of Pharmacy is housed in Rennebohm Hall, (<https://pharmacy.wisc.edu/about/rennebohm-hall>) a seven-story, state-of-the-art facility.

POSTGRADUATE INFORMATION

Recent program graduates have found employment in a variety of industrial settings or in prestigious postdoctoral academic research labs.

Opportunities in research and development roles for pharmaceutical, chemical, biotechnology and other innovation-minded companies are a common postgraduate path; some graduates eventually achieve faculty positions at small colleges or at larger research institutions. By partnering with other units on campus, the program has increased

career services such that students can sharpen their professional and communication skills and reach a larger network of potential employers. The program graduated 36 Ph.D.s from 2012 to 2016; over 90 percent of these recent alumni were professionally placed (i.e., working in the field) within six months of graduation. For more information on first professional placement following graduation, see employers of recent PharmSci graduates on the program website (<https://pharmacy.wisc.edu/programs/pharmsci/student-outcomes>). Faculty and the school's graduate programs coordinator can be consulted for specific career information (both initial placement and longer-term employment information regarding Ph.D. alumni).

FACILITIES

The pharmaceutical sciences division is housed in Rennebohm Hall (<http://www.pharmacy.wisc.edu/about-school/rennebohm-hall>), a seven-story, state-of-the-art facility that opened in 2001 and offers 120,000 assignable square feet. The pharmaceutical sciences division comprises floors 4 to 7 of Rennebohm Hall and features 34 laboratories; affiliate Pharmaceutical Sciences graduate faculty are housed at other campus buildings. Located on the northwest edge of campus, Rennebohm Hall is in close proximity to the Health Sciences Learning Center (home of the UW School of Medicine and Public Health), UW Hospital and Clinics, the UW Institute for Clinical and Translational Research (ICTR), the Waisman Center, the Wisconsin Institutes for Medical Research (WIMR), the School of Veterinary Medicine, the School of Nursing, and Ebling Library for the Health Sciences. Many researchers affiliated with Wisconsin's Carbone Comprehensive Cancer Center work within these adjacent facilities.

Exceptional research facilities and equipment are highlighted by the school's Analytical Instrumentation Center (AIC) (<http://www.pharmacy.wisc.edu/aic>), comprising mass spectrometry, nuclear magnetic resonance, spectroscopy, and spectrophotometry facilities. The AIC's high-tech instrumentation expedites the isolation and full structural elucidation of small molecules. These chemical entities can be subsequently evaluated via high throughput screening toward lead generation, or specifically utilized to prove novel biological phenomenon toward in-depth mechanistic study. The division offers centralized facilities for computer-aided drug and catalyst design, real-time PCR, gene array detectors, gas chromatographs, high-pressure liquid chromatographs, cell culture, ultra-centrifuges, scintillation counters, and animal care for a variety of species.

The school's Lenor Zeeh Pharmaceutical Experiment Station (<http://www.pharmacy.wisc.edu/zstation>) is a not-for-profit, self-sustaining center of expertise serving faculty researchers across the UW–Madison campus as well as private-sector drug product development. The station provides laboratory services related to compound physical/chemical characterization and basic formulation development to support preclinical development of promising drug candidates and other unmet pharmaceutical-related needs. Pharmaceutical sciences graduate students are eligible to participate in summer internships at the station. Pharmaceutical sciences also houses the university's Medicinal Chemistry Center (<https://pharmacy.wisc.edu/mcc>) (MCC), whose mission is to provide drug discovery expertise to the UW medical community and drive translational research at UW–Madison through designing and synthesizing novel small molecule based therapeutics. Pharmaceutical sciences faculty direct the MCC.

ADMISSIONS

Accepted students commonly have strong scientific backgrounds, a passion for research, and significant laboratory experience. Students with undergraduate degrees in the physical or biological sciences, engineering, pharmacy, and related fields are encouraged to apply. Students who have earned masters degrees are also welcomed to apply, but a masters degree is not a requirement. One may apply directly to the Pharmaceutical Sciences Ph.D. program with a bachelor's degree background (as long as a bachelor's degree would be completed by the time one would begin graduate studies).

Please see admissions (<https://pharmacy.wisc.edu/programs/pharmsci/admissions>) on the program website for the application deadline and required supplemental materials. Related links describe frequently-asked admissions questions (<https://pharmacy.wisc.edu/programs/pharmsci/admissions/faqs>), selection criteria (<https://pharmacy.wisc.edu/programs/pharmsci/admissions/selection-criteria>), and typical pharmaceutical research paths for various undergraduate majors (<https://pharmacy.wisc.edu/programs/pharmsci/admissions/undergraduate-research-paths>).

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Financial support is provided to all graduate students in Pharmaceutical Sciences through a combined mechanism of fellowships, teaching assistantships, research assistantships, and project assistantships. Funding packages for first-year students in the Ph.D. program are provided by the School of Pharmacy and consist of a mixture of fellowships and/or teaching assistant support. In addition, first-year students earn \$1500 in flexible funds to aid in the transition to Madison. After the first academic year, students are supported by their thesis advisor through research assistantship or teaching assistantship appointments. All students receive a stipend (the recommended minimum level for students in the division is \$25,000 for 2017–18, a figure that is adjusted annually), full tuition remission (waiver), and most of the cost of reasonably priced, comprehensive health insurance for the duration of their Ph.D. studies, if they retain good academic standing and a faculty advisor. For more details, see this program-specific funding page (<https://pharmacy.wisc.edu/programs/pharmsci/tuition-financial-aid>).

Travel grants are available annually; the program has funding to provide seven graduate students with travel grants each year. Students who are presenting at scientific conferences are preferred applicants; awards range from \$1000–\$1500. Most students are additionally supported in scientific conference travel via faculty funds.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 51 credits

Minimum Residence Credit Requirement 32 credits

Minimum Graduate Coursework Requirement Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements Candidates may be dropped from the program if they receive more than 7 credits of grades at the BC level or lower. This applies to formal courses and research credits.

Assessments and Examinations The preliminary examination is expected to be completed before the beginning of the third year of graduate study. For specifics regarding the preliminary examination's structure and requirements, see Preliminary Examination in the PSD Student Handbook (<https://pharmacy.wisc.edu/graduate-handbook-pharmaceutical-sciences/preliminary-examination/>).

A final oral defense of the dissertation is required; for more on the dissertation defense, see Ph.D. Thesis Defense in the PSD Student Handbook (<https://pharmacy.wisc.edu/graduate-handbook-pharmaceutical-sciences/phd-thesis-defense/>).

Language Requirements There are no language requirements in the Pharmaceutical Sciences Ph.D. program.

Doctoral Minor/Breadth Requirements No doctoral minor is required.

REQUIRED COURSES

Code	Title	Credits
PHM SCI 780	Principles of Pharmaceutical Sciences	3
Select at least two of the following core courses:		6
PHM SCI 768	Pharmacokinetics	
PHM SCI 786	Natural Product Synthesis, Biosynthesis and Drug Discovery	
BIOCHEM/ PHM COL-M/ ZOOLOGY 630	Cellular Signal Transduction Mechanisms	
Research ethics/responsible conduct of research course		1
Three additional credits from the Drug Action, Drug Delivery, or Drug Discovery elective lists are required (courses meeting this requirement are listed in the Pharmaceutical Sciences Graduate Handbook)		3
Seminar & Research		
PHM SCI 931	Pharmaceutical Sciences Seminar (required every fall term during enrollment as a graduate student in the program) ¹	
PHM SCI 932	Pharmaceutical Sciences Seminar (required every spring during enrollment as a graduate student in the program) ¹	
PHM SCI 990	Research ²	

¹ Seminar is required every fall and spring semester during enrollment as a graduate student in the program.

² Research credits are typically taken every semester in the program, beginning in the second semester. Credits will vary.

To enhance a required core curriculum, an individualized course of study is planned with a faculty advisor. Faculty advisors have the option to

require additional courses beyond the minimum requirements listed above.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://pharmacy.wisc.edu/graduate-handbook-pharmaceutical-sciences>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 15 credits of graduate coursework from other institutions (the student must have graduate student status on the other institution's transcript at the time the courses were taken). Coursework should be presented to the SoP graduate dean in the first semester of enrollment for consideration. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW-Madison Undergraduate

With approval of the School of Pharmacy's graduate studies dean, students are allowed to count no more than 7 credits of UW-Madison courses numbered 500 or above (earned as a UW-Madison undergraduate) toward the Ph.D. Coursework should be presented to the SoP graduate dean in the first semester of enrollment for consideration. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW-Madison University Special

With program approval, students are allowed to count no more than 15 credits of coursework numbered 500 or above taken as a UW-Madison special student toward the Ph.D. Coursework should be presented to the SoP graduate dean in the first semester of enrollment for consideration. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

PROBATION

A semester GPA below 3.0 will result in the student being placed on academic probation. If a semester GPA of 3.0 is not attained during the subsequent semester of full time enrollment (or 12 credits of enrollment if enrolled part-time) the student may be dismissed from the program or allowed to continue for one additional semester based on advisor appeal to the Graduate School.

ADVISOR / COMMITTEE

All students in the Ph.D. program are required to have a major professor/advisor through the duration of their studies. Typically a permanent advisor is found by the end of one's first semester.

All students are required to conduct an annual progress meeting with their thesis committee each year. The meeting should be completed by the end of August of each consecutive academic year. In years where the preliminary exam or the Ph.D. thesis defense are scheduled, these events may substitute for the annual progress meeting. For details on the annual progress report, see the PSD Student Handbook (<https://pharmacy.wisc.edu/graduate-handbook-pharmaceutical-sciences/progress-report>). For details on the composition requirements of the Ph.D. preliminary exam/thesis committee, see Thesis Committee (<https://pharmacy.wisc.edu/graduate-handbook-pharmaceutical-sciences/thesis-committee>) in the PSD Student Handbook.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

It is expected that Ph.D. major course requirements will be completed by the end of year two in the program.

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

OTHER

First-year students are typically offered fellowships and School of Pharmacy teaching assistantships in their initial two semesters. Funding as research assistants is assumed by the student's principal investigator/thesis advisor in the first summer. Subsequently (year 2 and beyond), students are funded by RA-ships, TA-ships and via other extramural funding (fellowship) support.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Demonstrate critical knowledge and in-depth understanding of principles in the student's area of expertise.
2. Identify important research questions, formulate testable hypotheses, and design experiments to test those hypotheses.
3. Conduct original research that contributes to the student's field of study.
4. Communicate scientific knowledge and research results effectively to a range of audiences.

5. Demonstrates breadth within their learning experiences.
6. Advances contributions of the field of study to society.
7. Apply ethical principles in conducting scientific research.

PEOPLE

A list of pharmaceutical sciences graduate faculty and their respective areas of research specialization is available from the division website (<https://pharmacy.wisc.edu/psd/faculty-research>) and related links. The Pharmaceutical Sciences Graduate Program has educated generations of scientists for challenging positions in industry, academia, and government.

PHARMACY, M.S.

The pharmacy master's program is a two-year, combined pharmacy administrative residency (ASHP Accredited PGY1 and PGY2, hosted by UW Health's Department of Pharmacy) and academic degree program, which culminates in a M.S. degree, emphasizing health system pharmacy management and leadership. **Applicants must be eligible for licensure as a pharmacist in the State of Wisconsin at the point of beginning the program.** The program is designed to provide the pharmacy resident/graduate student with a solid academic foundation and experience in the administration of exemplary pharmaceutical services across an integrated health system.

The primary objective of the program is to develop health system pharmacy administrators who are trained and prepared to immediately assume administrative leadership positions within large, integrated health care delivery systems at the level of managers and assistant directors, and eventually as directors of pharmacy. These positions include oversight of pharmacy operations, clinical programs, medication safety, new business development, supply chain, etc. Residents complete clinical and management rotations in the first year of the program, and advanced administrative and elective rotations in the second year (chosen from a variety of settings, as desired by the resident). The curriculum's flexibility allows for specialization in administrative areas that best complement the student's career goals. Resident activities are varied in scope, depending on each individual's background and areas of interest.

A detailed program overview (including a description of rotations; program strengths; resident competency objectives; projects; presentation, teaching, and travel opportunities) is available here (<https://www.uwhealth.org/health-professionals/internships/pharmacy-administrative-residency/administrative/31907>).

The UW Health Department of Pharmacy is a leader in the profession, and a leader within the University of Wisconsin Hospital & Clinics in the areas of technology assessment, new business development, information technology, patient safety, resource utilization and regulatory compliance. In 2006, this residency program proudly accepted the inaugural ASHP Foundation Pharmacy Residency Program Excellence Award for producing leaders across the profession.

ADMISSIONS

Applicants should submit through the standard Pharmacy Online Residency Centralized Application Service (PhORCAS). For details on

the requirements of this application process, including supplemental information required by PhORCAS, see the area regarding "pharmacy administrative residency—applying to the program" on the UW Health website (<http://www.uwhealth.org/health-professionals/internships/pharmacy-administrative-residency/applying/31924>). Included in these instructions are the procedures one must take to apply to the UW Graduate School. **Applications must be received by the end of the first Monday in January**; the residency historically begins the third full week of June and M.S. coursework begins in early September. Applications are not reviewed at any other time during the year. **Applicants to the M.S. program must be eligible for licensure as a pharmacist in Wisconsin due to the program's pharmacy residency requirements.**

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

STIPEND/BENEFITS

First year of residency: \$47,500 (2017–8)

Second year of residency: \$47,500 (2017–18)

16 paid vacation days, 6 legal holidays, and 9 sick days. As employees of the School of Pharmacy, residents receive health insurance benefits and full access to the University of Wisconsin–Madison's recreational, educational, and cultural facilities. Tuition costs and university "segregated fees" are paid for by the UW Health Department of Pharmacy.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 36 credits

Minimum Residence Credit Requirement 36 credits

Minimum Graduate Coursework Requirement Half of degree coursework (19 credits out of 36 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements Candidates will be dropped from the program if they receive more than 7 credits of grades at the BC level or lower. This applies to formal courses, seminars, and research credits.

Assessments and Examinations A master's research project is required. Contact the School of Pharmacy graduate programs coordinator or the program for more information.

Language Requirements None.

REQUIRED COURSES

First Semester (FALL)

Code	Title	Credits
PHM PRAC 617	Health System Pharmacy Data Analysis and Informatics	2
PHM PRAC 961	Graduate Seminar in Health-System Pharmacy	1
PHM PRAC 999	Advanced Independent Study	2
I SY E 515	Engineering Management of Continuous Process Improvement	3
M H R 705	Human Resource Management	3

Recommended 1st-semester FALL Electives

Code	Title	Credits
I SY E 555	Human Performance and Accident Causation	3
I SY E/PSYCH 653	Organization and Job Design	3
POP HLTH 795	Principles of Population Health Sciences	3
POP HLTH/SOC 797	Introduction to Epidemiology	3

Second Semester (SPRING)

Code	Title	Credits
PHM PRAC 699	Advanced Independent Study (Teaching: Drug Literature)	3
PHM PRAC 962	Graduate Seminar in Health-System Pharmacy	1
PHM PRAC 999	Advanced Independent Study	1
OTM 753	Healthcare Operations Management	3
Elective Credits (see SPRING electives course list below)		3

Recommended 2nd-semester SPRING Electives

Code	Title	Credits
M H R 628	Negotiations	3
M H R 700	Organizational Behavior	3
M H R 704	Managing Behavior in Organizations	3
M H R 722	Entrepreneurial Management	3
M H R 728	Bargaining, Negotiating and Dispute Settlement for Managers	3
POP HLTH/ECON 848	Health Economics	3

Third Semester (FALL)

Code	Title	Credits
PHM PRAC 961	Graduate Seminar in Health-System Pharmacy	1
PHM PRAC 999	Advanced Independent Study	2
OTM 758	Managing Technological and Organizational Change	3
Elective Credits (see FALL electives course list below)		3

Recommended 3rd-Semester FALL Electives

Code	Title	Credits
ACCT I S 710	Managerial Accounting	3
I SY E 555	Human Performance and Accident Causation	3
I SY E/PSYCH 653	Organization and Job Design	3
I SY E/PSYCH 854	Special Topics in Organization Design (Human Factors in Health Care and Patient Safety)	1-3
M H R 722	Entrepreneurial Management	3
POP HLTH 795	Principles of Population Health Sciences	3

Fourth Semester (SPRING)

Code	Title	Credits
PHM PRAC 962	Graduate Seminar in Health-System Pharmacy	1
PHM PRAC 999	Advanced Independent Study	2

POP HLTH 785	Health Systems, Management, and Policy	3
S&A PHM 716	Advanced Hospital Pharmacy Administration	2
Elective Credits (see SPRING electives course list below)		2

Recommended 4th-Semester SPRING Electives

Code	Title	Credits
I SY E 520	Quality Assurance Systems	3
I SY E/MED PHYS 559	Patient Safety and Error Reduction in Healthcare	2
M H R 628	Negotiations	3
M H R 700	Organizational Behavior	3
M H R 704	Managing Behavior in Organizations	3
M H R 722	Entrepreneurial Management	3
POP HLTH/I SY E 875	Cost Effectiveness Analysis in Health and Healthcare	3

Further, pharmacy residency requirements are presented at this link (<http://www.uwhealth.org/health-professionals/internships/pharmacy-administrative-residency/rotations/31908>).

POLICIES**GRADUATE SCHOOL POLICIES**

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES**GRADUATE PROGRAM HANDBOOK**

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK**Graduate Work from Other Institutions**

With program approval, students are allowed to count no more than 3 credits of graduate or Pharm.D. coursework from other institutions (so long as the credits are earned post-baccalaureate) toward the M.S. in pharmacy. The coursework should be presented to program administrators in the first semester of enrollment for evaluation. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW-Madison Undergraduate

No coursework taken as a UW-Madison undergraduate may be used to fulfill course requirements in the M.S. degree.

UW-Madison University Special

No coursework taken as a UW-Madison University Special student may be used to fulfill course requirements in the M.S. degree.

PROBATION

The status of a student can be one of three options:

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

The UWHC Department of Pharmacy also has a disciplinary procedure/policy for its residents; contact the graduate programs coordinator or the UWHC Department of Pharmacy for details.

ADVISOR / COMMITTEE

Students/residents are regularly reviewed by the UWHC Director of Pharmacy and the program's other preceptors.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Further, that coursework may not count toward Graduate School credit requirements.

OTHER

Find information about the program's accreditation here (https://www.uwhealth.org/files/uwhealth/docs/pdf6/Admin_Residency_Program_Summary.pdf).

required to support comprehensive pharmacy services across the integrated health system.

4. Ability to perform technology assessment studies for new systems technology.
5. Knowledge and expertise in managing drug policy including an understanding of the importance of such a program in supporting evidence-based care throughout an integrated health system.
6. Role of pharmacy in conducting and supporting drug research as well as understanding principles of conducting research in administrative science and pharmacy practice.
7. Development of personal leadership qualities and business acumen essential to operate efficiently within a hospital and health system and advance the profession and practice of pharmacy.
8. Development of business knowledge and skills in the following areas: communication techniques, problem identification and solving, project management, decision making, productivity management, quality methodologies, organizational design and behavior, cost/benefit analysis, technology assessment and strategic planning.
9. Administrative skills in the principles of supply chain management, human resource management, financial management, pharmaceutical reimbursement, revenue cycle management, narcotic control, labor relations and pharmacy regulations and law.
10. Understanding the role of pharmacy in education and research as part of an academic medical center as well as the integration of education and research into practice. This involves the provision of evidence-based, patient centered medication therapy management with various members of the health care team in an interdisciplinary fashion and teaching of pharmacy students. In addition, residents will develop an understanding of the importance of public service and education in an academic medical center.
11. Ability to create, promote, and market the pharmacy's role within integrated health care systems through understanding of medication safety standards required to ensure a safe medication use system across the integrated health system.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Thorough understanding of the organization and the components of an integrated health care system as they relate to the continuum of pharmaceutical care across the health system including acute care, ambulatory care, home care, and other settings.
2. Administration of pharmacy service networks as part of the integrated health system and the relationships of the components of the pharmacy regional health system (e.g.: inpatient care, retail and mail service pharmacy, managed care pharmacy programs, specialty pharmacy services, hospice care, home care and pharmacy consulting programs).
3. Thorough understanding of how to design, implement, manage and improve a safe and effective medication use system. This includes an understanding of information technology and other automated systems

SOCIAL AND ADMINISTRATIVE SCIENCES IN PHARMACY, M.S.

The **Social and Administrative Sciences in Pharmacy (SAS) M.S. Program** provides a rigorous background in a range of disciplines critical to preparing the next generation of health services researchers. The program's interdisciplinary approach combines theories and concepts from fields such as economics, sociology, psychology, management sciences, education, epidemiology, industrial/safety engineering, history, and law. The UW-Madison Division of Social & Administrative Sciences in Pharmacy has a national reputation for its research productivity, extramural funding support, publication record, and teaching. See SAS faculty information and research interests (<https://pharmacy.wisc.edu/sas/faculty-research>). The SAS Graduate Program at UW-Madison has educated generations of researchers who have taken challenging leadership and advisory positions in academia, industry, and government. Our faculty members and graduates have provided influential roles in communicating research findings to the public, policy makers, pharmacists, and other health care professionals to improve health

outcomes, patient care, medication use, and the healthcare system. The Sonderegger Research Center (<https://pharmacy.wisc.edu/src>) (SRC) is housed within the SAS Division.

About the Program

The objective of the SAS graduate program is to prepare students for independent, theory-based research, leading to new knowledge and understanding of medication use, patient and provider communication and behaviors, health outcomes, patient safety, and healthcare systems. Further, it evaluates the need for pharmacists to fulfill various roles, such as clinical practitioner, drug consultant, and drug distribution system manager, in order to meet the needs of diverse patients, providers, and organizations that use pharmacy services. This is accomplished by integrating knowledge of pharmacy and pharmaceuticals with theories and concepts from numerous disciplines.

Why Consider a Graduate Degree in Social & Administrative Sciences in Pharmacy at the University of Wisconsin-Madison

Students in the SAS graduate program have the advantages of studying at a world class institution of higher learning. Courses may be taken from a wide range of academic units, providing access to top instructors and researchers. The SAS M.S. program has considerable curricular flexibility, and can be tailored to individual student interest. As program faculty have a broad range of knowledge and expertise, students can specialize in diverse areas of emphasis.

UW–Madison is one of the nation's most prolific research universities, located on the shores of Lake Mendota in the state's vibrant capital city. The city of Madison is consistently recognized as one of the best cities in the nation in multiple categories for quality of life. Visit grad.wisc.edu (<http://grad.wisc.edu>) to learn more about the many reasons to choose UW–Madison for graduate study.

A **dual PharmD–M.S. degree program** in SAS has been approved. The dual degree program is an opportunity for professional pharmacy students to concurrently pursue an M.S. degree in SAS during the latter half of their professional pharmacy academic years. See the School of Pharmacy's graduate programs coordinator for more information about this dual degree's specifics.

The SAS Graduate Student Handbook (<https://pharmacy.wisc.edu/handbook-sas>) and program brochure (<https://pharmacy.wisc.edu/wp-content/uploads/sasgradprogram.pdf>) are sources for additional information.

POST-GRADUATE INFORMATION

Placement information for recent SAS alumni is updated yearly; see the program website. (<https://pharmacy.wisc.edu/programs/sas/student-outcomes>) SAS has a rich history of creating future pharmacy educators, and Wisconsin SAS alumni who have gone on to achieve the PhD are faculty members at schools and colleges of pharmacy across the United States and abroad. Prospective students interested in careers in academic pharmacy are encouraged to explore resources from the American Association of Colleges of Pharmacy (<https://www.aacp.org>). Beyond academia, common career setting options for MS and PhD graduates are in the pharmaceutical industry, contract research organizations, managed care, nonprofit research centers, and government entities. In non-academic settings, SAS alumni have titles such as director for health economics and outcomes research; health researcher for patient safety and quality; social researcher; research scientist; director of pharmacy; director for global market access, pricing, and policy.

ADMISSIONS

A professional degree in pharmacy is helpful, but not required, for applicants to the SAS M.S. graduate program. Academic backgrounds in public health, sociology, industrial/systems engineering, or economics, for example, are well suited for graduate study in SAS. Those with pharmacy-type work experience or a degree in a related field are invited to inquire about the compatibility of their background for admissions purposes. If you seek to apply your knowledge and skills to pharmacy or medication-related research at the highest levels, contact us. You can earn the M.S. degree in Social and Administrative Sciences in Pharmacy with emphasis in any of the diverse areas of concentration within our program.

Please see admissions (<https://pharmacy.wisc.edu/programs/sas/admissions>) on the program website for a link to the application and a description of the required supplementary materials. Applications are only considered at the **yearly January deadline**, for matriculation in the following fall semester. **Applications are not reviewed at any other time during the year.** Students may apply for (a terminal) M.S. or the Ph.D.

If one does not hold a research-based masters degree at the time of application, but is interested in the Ph.D. degree, that Ph.D. intent should be in the application (and if admitted, such students would typically pursue an M.S. in SAS on the way to the Ph.D.).

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

The SAS faculty believe in supporting graduate students in their quest for knowledge and research expertise; maintaining a range of graduate student funding mechanisms is a high priority. Graduate students are often provided with tuition remission and funding support as either teaching assistants or fellows. In addition, incoming students are provided with new laptop computers for their learning and research endeavors, access to state-of-the-art statistical software, and travel grants to facilitate research presentations at national meetings. The Sonderegger Research Center is another source for funding, with the availability of annual dissertation grants. SAS graduate students who are licensed pharmacists are typically encouraged to continue practicing part-time, to maintain their ties to the profession. For the latest on SAS graduate funding, visit this page (<https://pharmacy.wisc.edu/programs/sas/tuition-financial-support>).

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 32 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement At least half of degree coursework (at least 17 credits out of 32 total credits) must be in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required for graduate-level courses (numbered 300 and above, excluding research) to receive a degree.

Other Grade Requirements Candidates may be dropped from the program if they receive more than 7 credits of grades at the BC level or lower. This applies to formal courses, seminars, and research credits.

Assessments and Examinations A formal master's thesis based on original research is required and must be defended orally. For specific details, see <https://pharmacy.wisc.edu/handbook-sas/ms-degree-requirements/ms-thesis-and-examination/>.

Language Requirements Only candidates with an emphasis in the history of pharmacy are required to attain competence in foreign language. Contact the School's Graduate Programs Coordinator for more information.

REQUIRED COURSES

Completion of a set of core courses is required. At least 9 credits in core courses, 9 credits in methods of research and analysis, and 11 credits in specialty/advanced courses are required.

Code	Title	Credits
Core Courses		
<i>Core Seminar</i>		2
S&A PHM 911	Research Seminar in Social & Administrative Pharmacy ¹	
<i>Core Principles</i>		6
S&A PHM 711	Research Methods for Pharmaceutical Outcomes and Policy Research	
S&A PHM 713	Pharmaceutical Marketing and Policy	
S&A PHM 715	Social Behavioral Theories in Pharmacy, Drug Use, and Health Behavior	
S&A PHM 622	Proseminar in Social and Administrative Pharmacy	
Methods of Research and Analysis		9
Select from approved lists:		
Additional Research methods (3 credits minimum)		
Analytic techniques (6 credits minimum)		
Specialty/Advanced Courses²		11
Select in consultation with major professor.		
Research (credit varies)		
S&A PHM 990	Research	1-12
Total Minimum Credits		32

¹ S&A PHM 911 Research Seminar in Social & Administrative Pharmacy is in transition and will become a 2 credit course (presently it is 1 cr). It is a repeatable course and will be a sequence of six themed lectures. After the course credit amount is changed, MS students will be expected to take the course three times to earn 6 credits.

² A minimum of 6 credits must be taken outside of the School of Pharmacy for the Specialty/Advanced requirement. The Specialty/Advanced credits may include no more than 2 additional credits of repeated S&A PHM 911 Research Seminar in Social & Administrative Pharmacy courses and/or a 3-credit SAS core course. The Specialty/Advanced credits cannot include more than 5 total SAS course credits.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://pharmacy.wisc.edu/handbook-sas>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 16 credits of graduate coursework from other institutions (the student must have graduate student status on the other institution's transcript at the time the courses were taken). Such courses should be presented to SAS faculty prior to one's first graduate semester and require the review/approval of at least two SAS faculty members. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

With program approval, students are allowed to count no more than 7 credits of UW–Madison courses numbered 700 or above (earned as a UW–Madison undergraduate or professional student) toward the M.S. Such courses should be presented to SAS faculty prior to one's first graduate semester and require the review/approval of at least two SAS faculty members. *Note:* The above does not apply to students enrolled in the dual Pharm.D.–M.S. (SAS) program.

UW–Madison University Special

With program approval, students are allowed to count no more than 7 credits of coursework numbered 700 or above taken as a UW–Madison Special student. Such courses should be presented to SAS faculty prior to one's first graduate semester and require the review/approval of at least two SAS faculty members. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific

plan with dates and deadlines in place in regard to removal of probationary status).

3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

ADVISOR / COMMITTEE

Students are required to maintain a SAS faculty member as an M.S. advisor through the duration of their studies. Students should select a permanent major professor before the end of the second semester enrolled in the program. SAS graduate faculty monitor the progress of M.S. students annually.

Requirements for the composition of the SAS M.S. thesis committee are presented at this link (<https://pharmacy.wisc.edu/handbook-sas/ms-degree-requirements/ms-thesis-and-examination>).

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

The SAS M.S. is designed to be completed in two years.

Master's degree students who have been absent for five or more consecutive years lose all credits that were earned before their absence. Further, that coursework may not count toward Graduate School credit requirements.

OTHER

SAS faculty believe in supporting graduate students and a range of funding mechanisms are possible; graduate students are often provided with tuition remission and funding support either as teaching assistants, project assistants or fellows. In addition, new students are provided with new laptop computers for their learning and research endeavors, access to state-of-the-art statistical software and support, and travel grants to present their research at national meetings.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Demonstrate critical knowledge and in-depth understanding of principles in the core area of the program and the student's area of expertise.
2. Identify important research questions, formulate testable hypotheses, and design experiments to test those hypotheses.
3. Conduct original research that contributes to the student's field of study.
4. Communicate, both orally and in writing, scientific knowledge and research results effectively to a range of audiences.

5. Demonstrate ability to teach SAS concepts and principles to a range of audiences.

6. Apply ethical principles in conducting scientific research.

SOCIAL AND ADMINISTRATIVE SCIENCES IN PHARMACY, PH.D.

The **Social and Administrative Sciences in Pharmacy (SAS) Ph.D.** Program provides a rigorous background in a range of disciplines critical to preparing the next generation of health services researchers. The program's interdisciplinary approach combines theories and concepts from fields such as economics, sociology, psychology, management sciences, education, epidemiology, industrial/safety engineering, history, and law. The UW–Madison Division of Social & Administrative Sciences in Pharmacy has a national reputation for its research productivity, extramural funding support, publication record, and teaching. See SAS faculty information and research interests (<https://pharmacy.wisc.edu/sasd/faculty-research>). The SAS Graduate Program at UW-Madison has educated generations of researchers who have taken challenging leadership and advisory positions in academia, industry, and government.

Our faculty members and graduates have provided influential roles in communicating research findings to the public, policy makers, pharmacists, and other health care professionals to improve health outcomes, patient care, medication use, and the healthcare system. The Sonderegger Research Center (<https://pharmacy.wisc.edu/src>) (SRC) is housed within the SAS Division.

About the Program

The objective of the SAS graduate program is to prepare students for independent, theory-based research, leading to new knowledge and understanding of medication use, patient and provider communication and behaviors, health outcomes, patient safety, and healthcare systems. Further, it evaluates the need for pharmacists to fulfill various roles, such as clinical practitioner, drug consultant, and drug distribution system manager, in order to meet the needs of diverse patients, providers, and organizations that use pharmacy services. This is accomplished by integrating knowledge of pharmacy and pharmaceuticals with theories and concepts from numerous disciplines.

Why Consider a Graduate Degree in Social & Administrative Sciences in Pharmacy at the University of Wisconsin–Madison

Students in the SAS graduate program have the advantages of studying at a world class institution of higher learning. Courses may be taken from a wide range of academic units, providing access to top instructors and researchers. The SAS graduate program has considerable curricular flexibility, and can be tailored to the individual student interest. Since the program faculty have a broad range of knowledge and expertise, students can specialize in diverse areas of emphasis.

UW–Madison is one of the nation's most prolific research universities, located on the shores of Lake Mendota in the state's vibrant capital city. The city of Madison is consistently recognized as one of the best cities in the nation in multiple categories for quality of life. Visit grad.wisc.edu (<http://grad.wisc.edu>) to learn more about the many reasons to choose UW–Madison for graduate study.

The SAS Graduate Student Handbook (<https://pharmacy.wisc.edu/handbook-sas>) and program brochure (<https://pharmacy.wisc.edu/>

[wp-content/uploads/sasgradprogram.pdf](https://pharmacy.wisc.edu/wp-content/uploads/sasgradprogram.pdf)) are sources for additional information.

POST-GRADUATE INFORMATION

Placement information for recent SAS alumni is updated yearly; see the program website. (<https://pharmacy.wisc.edu/programs/sas/student-outcomes>) SAS has a rich history of creating future pharmacy educators, and Wisconsin SAS alumni are faculty members at schools and colleges of pharmacy across the United States and abroad. Prospective students interested in careers in academic pharmacy are encouraged to explore resources from the American Association of Colleges of Pharmacy (<https://www.aacp.org>). Beyond academia, common career setting options are in the pharmaceutical industry, contract research organizations, managed care, nonprofit research centers, and government entities. In non-academic settings, SAS alumni have titles such as director for health economics and outcomes research; health researcher for patient safety and quality; social researcher; research scientist; director of pharmacy; director for global market access, pricing, and policy.

ADMISSIONS

A professional degree in pharmacy is helpful, but not required, for applicants to the SAS Ph.D. program. Academic backgrounds in public health, sociology, industrial/systems engineering, or economics, for example, are well suited for graduate study in SAS. Those with pharmacy-type work experience or a degree in a related field are invited to inquire about the compatibility of their background for admissions purposes. If you seek to apply your knowledge and skills to pharmacy or medication-related research at the highest levels, contact us. You can earn the Ph.D. in Social and Administrative Sciences in Pharmacy with emphasis in any of the diverse areas of concentration within our program.

Please see admissions (<https://pharmacy.wisc.edu/programs/sas/admissions>) on the program website for a link to the application and a description of the required supplementary materials. Applications are only considered at the **yearly January deadline**, for matriculation in the following fall semester. **Applications are not reviewed at any other time during the year.** If one does not hold a research-based master's degree at the time of application, but is interested in the Ph.D. degree, that Ph.D. intent should be in the application (and if admitted, such students would typically pursue an M.S. in SAS on the way to the Ph.D.).

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

The SAS faculty believe in supporting graduate students in their quest for knowledge and research expertise; maintaining a range of graduate student funding mechanisms is a high priority. Graduate students are often provided with tuition remission and funding support as either teaching assistants or fellows. In addition, incoming students are provided with new laptop computers for their learning and research endeavors, access to state-of-the-art statistical software, and travel grants (<https://pharmacy.wisc.edu/handbook-sas/travel-support>) to facilitate research presentations at national meetings. The Sonderegger Research Center is another source for funding, with the availability of annual dissertation grants. SAS graduate students who are licensed pharmacists are typically encouraged to continue practicing part-time, to maintain their ties to the profession. For the latest on SAS graduate funding, visit this page (<https://pharmacy.wisc.edu/programs/sas/tuition-financial-support>).

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum
Credit
Requirement 51 credits

Minimum Residence Credit Requirement	32 credits
Minimum Graduate Coursework Requirement	At least half of degree coursework (at least 26 credits out of 51 total credits) must be in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle).
Overall Graduate GPA Requirement	3.00 GPA required for graduate-level courses (numbered 300 and above, excluding research) to receive a degree.
Other Grade Requirements	Candidates may be dropped from the program if they receive more than 7 credits of grades at the BC level or lower. This applies to formal courses, seminars, and research credits.
Assessments and Examinations	<p>Doctoral students must pass both written and oral preliminary examinations to achieve dissertator status (see https://pharmacy.wisc.edu/handbook-sas/phd-degree-requirements/preliminary-exams/). The written preliminary examination is evaluated on a pass/fail basis. The oral preliminary examination must be completed within six months after having passed the written preliminary examination.</p> <p>A dissertation and final oral defense are required. See https://pharmacy.wisc.edu/handbook-sas/phd-degree-requirements/dissertation-final-exams/ for details.</p>
Language Requirements	Candidates with an emphasis in the history of pharmacy are required to achieve competence in two foreign languages (one in addition to the language acquired for the M.S. degree). Contact the school's graduate programs coordinator for more information.
Doctoral Minor/Breadth Requirements	<p>All doctoral students are required to complete a minor.</p> <p>Students completing option B minors must complete a minimum of 9 credits outside of SAS, reflecting a cohesive and logical combination of courses for specialization emphasis. For Option B, the doctoral minor is developed by the student and faculty advisor as a plan for specialization. In SAS, the student's committee approves the minor Option B plan. The minor plan should be approved before courses qualifying for the minor are completed. Some courses in the minor plan may be completed before the plan is submitted, but at least half of the minor coursework must be completed after the minor plan is submitted and approved by the student's committee. The minor supports the theoretical foundations for the Ph.D. and should consist of a majority of courses that are theory-focused (i.e., not focused on research methods or analytical/statistical techniques); that is, theoretical courses should comprise all or most of the minor plan.</p>

REQUIRED COURSES

Completion of a set of courses is required. At least 18 credits in core courses (seminar, core principles, and core methods), 15 credits in research and analysis (additional research methods, analytic techniques), and 18 credits in specialty/advanced courses is required.

Code	Title	Credits
Core Courses		18
<i>Core Seminar</i>		12
S&A PHM 911	Research Seminar in Social & Administrative Pharmacy	
<i>Core Methods and Principles</i>		6
S&A PHM 711 & S&A PHM 715	Research Methods for Pharmaceutical Outcomes and Policy Research and Social Behavioral Theories in Pharmacy, Drug Use, and Health Behavior	
Methods of Research & Analysis		15
<i>Methods (Select from approved list in consultation with major professor.)</i>		3-9
<i>Analytic Techniques (Select from approved list in consultation with major professor.)</i>		6-12
Specialty/Advanced Courses		18
Non-minor		9
Select in consultation with major professor.		
Minor (Option A or Option B)		9
Research (credit varies)		
Foreign Languages (History Concentration only). Ph.D. students with a history concentration must achieve reading ability in two foreign languages and take a minimum of 3 credits in methods of research and analysis.		
Total Minimum Credits:		51

¹ S&A PHM 911 Research Seminar in Social & Administrative Pharmacy is in transition and will become a 2 credit course (currently, it is 1 cr). It is a repeatable course and will be a sequence of six themed lectures. After the course credit amount is changed, Ph.D. students will be expected to take the course six times to earn 12 credits.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://pharmacy.wisc.edu/handbook-sas>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

If accepted into the SAS Ph.D. program with a master's degree equivalent to an M.S. (SAS) degree and with program approval, students are allowed to count no more than 24 credits of graduate coursework from other institutions (the student

must have graduate student status on the other institution's transcript at the time the courses were taken) towards the Ph.D. at UW–Madison. Such courses should be presented to SAS faculty prior to one's first graduate semester and require the review/approval of at least two SAS faculty members. coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

No credits earned as a UW–Madison undergraduate may be used toward achieving the 24 credits beyond the M.S. that are required for the Ph.D. in SAS.

UW–Madison University Special

No credits earned as a UW–Madison Special student may be used toward achieving the 24 credits beyond the M.S. that are required for the Ph.D. in SAS.

PROBATION

A semester GPA below 3.0 will result in the student being placed on academic probation. If a semester GPA of 3.0 is not attained during the subsequent semester of full-time enrollment (or 12 credits of enrollment if enrolled part-time) the student may be dismissed from the program or allowed to continue for one additional semester based on advisor appeal to the Graduate School.

ADVISOR / COMMITTEE

All students in the Ph.D. program are required to have a major professor/advisor through the duration of their studies. Students should select a permanent major professor before the end of the second semester enrolled in the program. SAS graduate faculty monitor the progress of Ph.D. students annually.

Composition requirements of the SAS Ph.D. oral preliminary examination committee are presented at this link (<https://pharmacy.wisc.edu/handbook-sas/phd-degree-requirements/preliminary-exams>); this same committee typically also serves as the dissertation final oral defense committee.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

A candidate for a doctoral degree who fails to take the final oral defense and deposit the dissertation within five years after passing the preliminary examinations may be required to take another preliminary examination and to be admitted to candidacy a second time.

OTHER

SAS faculty believe in supporting graduate students and a range of funding mechanisms are possible; graduate students are often provided with tuition remission and funding support either as teaching assistants, project assistants or fellows. In addition, new students are provided with new laptop computers for their learning and research endeavors, access to state-of-the-art statistical software and support, and travel grants to present their research at national meetings.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Demonstrate critical knowledge and in-depth understanding of principles in the core area of the program and the student's area of expertise.
2. Identify important research questions, formulate testable hypotheses, and design experiments to test those hypotheses.
3. Conduct original research that contributes to the student's field of study.
4. Communicate, both orally and in writing, scientific knowledge and research results effectively to a range of audiences.
5. Demonstrate ability to teach SAS concepts and principles to a range of audiences.
6. Apply ethical principles in conducting scientific research.

PHILOSOPHY

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Philosophy, Doctoral Minor (p. 1134)
- Philosophy, M.A. (p. 1134)
- Philosophy, Ph.D. (p. 1137)

PEOPLE

Faculty: Professors Bengson, Brighthouse, Fletcher, Gibson, Gottlieb, Hausman, Kelleher, Mackay, Masrou, Messina, Nadler, Paul, Schectman, Shafer-Landau, Shapiro, Sidelle, Sober, Southgate, Steinberg, Streiffer, Titlebaum, Vranas

PHILOSOPHY, DOCTORAL MINOR

REQUIREMENTS

Graduate students from other fields who wish to pursue a minor in philosophy should consult with the assistant to the chair of the department. Minor candidates are required to take a minimum of three courses in philosophy (<http://guide.wisc.edu/courses/philos>) for a total of at least 9 credits. Normally, at least two of these courses, for at least 5 credits, must be taken in residence on campus. Most courses numbered

400 and above are open to minor candidates, as are graduate courses and seminars numbered 800 and above.

PEOPLE

Faculty: Professors Bengson, Brighthouse, Fletcher, Gibson, Gottlieb, Hausman, Kelleher, Mackay, Masrou, Messina, Nadler, Paul, Schectman, Shafer-Landau, Shapiro, Sidelle, Sober, Southgate, Steinberg, Streiffer, Titlebaum, Vranas

PHILOSOPHY, M.A.

The Department of Philosophy offers work leading to the doctor of philosophy with a major in philosophy.

The M.A. is granted to Ph.D. program students when they pass their preliminary examinations and become a dissertator. When a student must leave the program early and is unable to complete a Ph.D., a terminal M.A. is granted upon satisfying the department's criteria for a master's degree.

The Ph.D. degree is awarded in recognition of a successfully completed program of advanced studies in philosophy, culminating in a dissertation which represents a contribution to philosophy or to philosophical scholarship.

The Ph.D. program falls into two major stages. The first consists of work that prepares the student for admission to candidacy for the Ph.D. degree. Studies during the first stage of the program are devoted to acquiring the philosophical skills and learning needed to do philosophy in the second stage when writing a successful dissertation.

The department offers five years of support to all incoming graduate students. Support begins with the first fall semester and continues for at least nine additional semesters, provided the student makes satisfactory academic progress and carries out duties acceptably as a graduate assistant.

The department assigns a faculty member as placement officer and devotes a significant portion of staff resources to help graduates find employment.

ADMISSIONS

This master's program is offered for work leading to the Ph.D. Students may not apply directly for the master's, and should instead see the admissions information for the Ph.D. (p. 1137).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

We offer five years of support to all incoming graduate students, beginning their first fall semester, and continuing for at least nine additional semesters, provided the student makes satisfactory academic progress and carries out duties acceptably as graduate assistants. The support may vary from year to year between assistantships and lectureships.

NOTE TO INTERNATIONAL STUDENTS

Please be advised that all students who are not U.S. citizens must prove that they have the financial means to live and study in the United States, before they are granted a visa. For an explanation of this policy, see International Applicant Financial Information (<https://grad.wisc.edu/international-students/#financialinformation>).

ADDITIONAL FINANCIAL AID

Citizens of the United States and permanent residents should contact Student Financial Services (<https://financialaid.wisc.edu>) (phone: 608-262-3060) for more information on eligibility, how and when to apply, and types of aid.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum 33 credits

Credit Requirement

Minimum 21 credits

Residence Credit Requirement

Minimum 30 credits must be in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide Requirement (<https://registrar.wisc.edu/course-guide/>).

Overall 3.00 GPA required.

Graduate GPA Requirement

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Contact the program for information on required assessments and examinations.

Language Requirements Contact the program for information on any language requirements.

REQUIRED COURSES

At least 21 credits must be earned in philosophy courses numbered between 800 and 989. The remaining credits may be earned either by transferring credits from graduate-level work (with a maximum of 9 credits) or by taking courses at the 400–900 level.

No more than one course at the 400–600 level nor more than one course at the 700 level can count toward the credit-hour requirements for the M.A.

Typically, students take 10 seminars at the 800–900 level and one 700-level seminar to satisfy this requirement.

No more than one 701 course can count toward the 33-credit-hour requirement for the M.A.

PHILOS 902 Proseminar in Philosophy: Required of all first-year graduate students (3 credits).

History of Philosophy Courses: Students must take at least two courses for a total of 6 credits.

- PHILOS/CLASSICS 830 Advanced History of Philosophy
- PHILOS 835 Advanced History of Philosophy

900-level Seminars: The number of courses a student takes on this list depends on how many credits are taken in history seminars, transferred credits, etc. Typically students take between seven and nine seminars at the 900 level, each at 3 credits.

Code	Title	Credits
PHILOS 903	Seminar: Epistemology	3
PHILOS 911	Seminar-Logic	3
PHILOS 916	Seminar-Philosophy of Language	3

PHILOS 920	Seminar-Philosophy of Science:Causation, Explanation & Probability	3
PHILOS 930	Seminar-History of Philosophy	3
PHILOS 941	Seminar-Ethics	3
PHILOS 951	Seminar-Philosophy of Mind	3
PHILOS 955	Seminar Social and Political Philosophy	3
PHILOS 960	Metaphysics Seminar	3
PHILOS/ RELIG ST 961	Seminar-Philosophy of Religion	3

Reading Seminar. Students typically take one PHILOS 701 Reading Seminar course before advancing to candidacy/earning the M.A. degree.

Contact the program for information on any additional required courses.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (http://philosophy.wisc.edu/graduate/requirements_policies.php) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 9 credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

With program approval, students are allowed to count no more than 9 credits of coursework numbered 500 or above taken as a UW–Madison Special student. Coursework earned five or more years prior to admission to a master's is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies. Students can be suspended from the Graduate School if they do not have an advisor.

To ensure that students are making satisfactory progress toward a degree, the Graduate School expects students to meet with their advisor on a regular basis.

The assistant to the chair serves as the advisor for the first year or so. Students then select an advisor and, as coursework and other requirements are completed, a committee of faculty is selected by the student to serve as advisors.

CREDITS PER TERM ALLOWED

12 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

n/a

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Expert ability to think critically about arguments.
2. Expert ability to interpret complex texts accurately and analyze them logically.
3. Ability to communicate very precisely and concisely in both writing and in speech.
4. In-depth familiarity with the history of Western philosophy and the major debates within that tradition.
5. Interpretative charity, and intellectual honesty, which includes appropriate attribution to others of their ideas, and recognition and frankness about the limitations of one's own ideas.

PEOPLE

Faculty: Professors Bengson, Brighthouse, Fletcher, Gibson, Gottlieb, Hausman, Kelleher, Mackay, Masrour, Messina, Nadler, Paul, Schectman,

Shafer-Landau, Shapiro, Sidelle, Sober, Southgate, Steinberg, Streiffer, Titlebaum, Vranas

PHILOSOPHY, PH.D.

The Department of Philosophy offers work leading to the doctor of philosophy with a major in philosophy.

The M.A. is granted to Ph.D. program students when they pass their preliminary examinations and become a dissertator. When a student must leave the program early and is unable to complete a Ph.D., a terminal M.A. is granted upon satisfying the department's criteria for a master's degree.

The Ph.D. degree is awarded in recognition of a successfully completed program of advanced studies in philosophy, culminating in a dissertation which represents a contribution to philosophy or to philosophical scholarship.

The Ph.D. program falls into two major stages. The first consists of work that prepares the student for admission to candidacy for the Ph.D. degree. Studies during the first stage of the program are devoted to acquiring the philosophical skills and learning needed to do philosophy in the second stage when writing a successful dissertation.

The department offers five years of support to all incoming graduate students. Support begins with the first fall semester and continues for at least nine additional semesters, provided the student makes satisfactory academic progress and carries out duties acceptably as a graduate assistant.

The department assigns a faculty member as placement officer and devotes a significant portion of staff resources to help graduates find employment.

ADMISSIONS

For admission to the Ph.D. program with full graduate standing, a student must have completed the equivalent of a B.A. with a major in philosophy. Promising students who do not meet this requirement may be admitted with deficiencies provided that they have completed at least 12 credits in philosophy.

The deadline for applications is January 5. You must apply online by that date to be considered for admission.

The process begins with the application to the UW–Madison Graduate School (<https://apply.grad.wisc.edu/Account/Login?ReturnUrl=%2f>).

Answer all required questions and be sure to submit the following:

1. Reasons for Study (also called Statement of Purpose)
2. Names of at least three professors and their email addresses for letters of recommendation
3. TOEFL or Melab scores if your native language is not English
4. Supplemental application (questionnaire about what philosophy courses you've already studied)
5. Writing sample (4,500–6,000 words recommended, which is 15–20 pages double-spaced, devoted to a philosophical subject)

GRE scores are not required and will not be looked at.

Every applicant whose native language is not English, or whose undergraduate instruction was not in English, must provide an English proficiency test score. Please see the specific English proficiency requirements here (<https://grad.wisc.edu/admissions/requirements>).

If you have questions about the process of applying, contact Miriam Fagan, graduate coordinator, uwmadisongradprogram@philosophy.wisc.edu or 608-263-5278.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

We offer five years of support to all incoming graduate students, beginning their first fall semester, and continuing for at least 9 additional semesters, provided the student makes satisfactory academic progress and carries out duties acceptably as graduate assistants. The support you receive may vary from year to year between assistantships and lectureships.

NOTE TO INTERNATIONAL STUDENTS

Please be advised that all students who are not U.S. citizens must prove that they have the financial means to live and study in the United States, before they are granted a visa. For an explanation of this policy, see International Applicant Financial Information (<https://grad.wisc.edu/international-students/#financialinformation>).

ADDITIONAL FINANCIAL AID

Citizens of the United States and permanent residents should contact Student Financial Services (<https://financialaid.wisc.edu>) (phone: 608-262-3060) for more information on eligibility, how and when to apply, and types of aid.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 51 credits

Minimum Residence Credit Requirement 32 credits

Minimum Graduate Coursework Requirement All 51 credits except for 3 credits must be in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle>).

*For students seeking a dual Ph.D./J.D., 42 of 51 credits must be in graduate-level coursework.

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Doctoral students must pass a preliminary examination, which includes a written exam, oral defense, and a dissertation proposal defense. Doctoral students are required to take a comprehensive preliminary/oral examination after they have cleared their record of all Incomplete and Progress grades (other than research and thesis). Deposit of the doctoral dissertation in the Graduate School is required. Writing the dissertation, candidates must pass an oral defense of the completed dissertation.

Language Requirements Contact the program for information on any language requirements.

Doctoral Minor/Breadth Requirements All doctoral students are required to complete a minor.

REQUIRED COURSES

At least 21 credits must be earned in philosophy courses numbered between 800 and 989. The remaining credits may be earned either by transferring credits from previous graduate-level work or by taking courses at the 400–900 level.

No more than one course at the 400–600 level nor more than two courses at the 700 level can count toward the credit-hour requirements for the Ph.D.

Typically, students take 10 seminars at the 800–900 level, two 700-level seminars, and earn the remainder of the credits by taking directed research or thesis-prep courses (e.g., PHILOS 990 Research and Thesis). In other words, the course requirements for the Ph.D. involve (a) completing the requirements for the M.A., (b) taking additional courses to reach a minimum of 51 credit hours, and (c) taking an additional seminar (700–989) at some point between the M.A. and completing the Ph.D., as part of the 51 credits.

Seminar requirement: at least 12 courses at the 500 level or above; at least 10 of these must be at the 800 or 900 level, and an additional course must be at the 700–900 level. Courses must be passed with a grade of B or better, except for 701, which requires a grade of S.

Ordinarily, students take at least three graduate seminars in the major area, two history seminars, PHILOS 902 Proseminar in Philosophy, and three seminars in other areas of philosophy. In addition, students typically take a reading seminar (PHILOS 701 Reading Seminar) before advancing to candidacy and another reading seminar after advancing to candidacy. At least 9 of the 12 courses must be taken in the UW–Madison program.

History of philosophy requirement: Two of the 12 required seminars must be advanced history of philosophy courses (PHILOS/CLASSICS 830 Advanced History of Philosophy and/or PHILOS 835 Advanced History of Philosophy).

No more than two courses from a previous program can be applied toward the seminar requirement.

Reading seminars: Each seminar meets with a concurrently offered reading seminar (PHILOS 701 Reading Seminar). Students attend all the seminar meetings and do the readings, but have a substantially lighter workload, determined by the professor before the beginning of the semester. Students may take as many PHILOS 701s as they like; however, only two PHILOS 701's can count toward the seminar requirement for the

Ph.D. No more than two PHILOS 701's can be applied to the 51-credit-hour requirement for the Ph.D.

First Year Proseminar: Required of all first-year graduate students (3 credits).

- PHILOS 902 Proseminar in Philosophy

History of Philosophy Courses: Students must take at least two courses for a total of 6 credits.

- PHILOS/CLASSICS 830 Advanced History of Philosophy
- PHILOS 835 Advanced History of Philosophy

900-level Seminars: The number of courses a student takes on this list depends on how many credits are taken in history seminars, transferred credits, etc. Typically students take between 7-9 seminars at the 900-level, each at 3 credits.

Code	Title	Credits
PHILOS 903	Seminar: Epistemology	3
PHILOS 911	Seminar-Logic	3
PHILOS 916	Seminar-Philosophy of Language	3
PHILOS 920	Seminar-Philosophy of Science:Causation, Explanation & Probability	3
PHILOS 930	Seminar-History of Philosophy	3
PHILOS 941	Seminar-Ethics	3
PHILOS 951	Seminar-Philosophy of Mind	3
PHILOS 955	Seminar Social and Political Philosophy	3
PHILOS 960	Metaphysics Seminar	3
PHILOS/ RELIG ST 961	Seminar-Philosophy of Religion	3

- **Reading Seminar:** Students typically take one PHILOS 701 Reading Seminar course before advancing to candidacy and another between advancing to candidacy and earning the Ph.D. These are also 3 credits each.

Contact the program for information about additional requirements.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (http://philosophy.wisc.edu/graduate/requirements_policies.php) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 9 credits of graduate coursework from other institutions. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW-Madison Undergraduate

No credits from a UW-Madison undergraduate degree are allowed to count toward the degree.

UW-Madison University Special

With program approval, students are allowed to count no more than 9 credits of coursework numbered 500 or above taken as a UW-Madison Special student. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies. Students can be suspended from the Graduate School if they do not have an advisor.

To ensure that students are making satisfactory progress toward a degree, the Graduate School expects students to meet with their advisor on a regular basis.

The Assistant to the Chair serves as the advisor for the first year or so. Students then select an advisor and, as coursework and other requirements are completed, a committee of faculty is selected by the student to serve as advisors. The primary advisor serves as the dissertation chair. The dissertation committee members (typically 3 faculty from the Department of Philosophy) serve as readers.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

OTHER

n/a

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Expert ability to think critically about arguments.
2. Expert ability to interpret complex texts accurately and analyze them logically.
3. Ability to design curriculum for undergraduate courses in their areas of expertise and competence.
4. Ability to communicate very precisely and concisely in both writing and in speech.
5. In-depth familiarity with the history of Western philosophy and the major debates within that tradition.
6. Ability to write a book length manuscript which constitutes an original and valuable contribution to the field.
7. Interpretative charity, and intellectual honesty, which includes appropriate attribution to others of their ideas, and recognition and frankness about the limitations of one's own ideas.
8. Fosters ethical and professional conduct.
9. Ability to engage in high quality undergraduate instruction in their areas of expertise and competence.
10. Well-equipped to pursue continuous professional development with respect to goals.

PEOPLE

Faculty: Professors Bengson, Brighthouse, Fletcher, Gibson, Gottlieb, Hausman, Kelleher, Mackay, Masrour, Messina, Nadler, Paul, Schectman, Shafer-Landau, Shapiro, Sidelle, Sober, Southgate, Steinberg, Streiffer, Titlebaum, Vranas

PHYSICS

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Physics, Doctoral Minor (p. 1141)
- Physics, M.A. (p. 1142)
- Physics, M.S. (p. 1146)
- Physics, Ph.D. (p. 1151)

PEOPLE

FACULTY

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 Susan Coppersmith (<https://www.physics.wisc.edu/people/susanncoppersmith>), Professor
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 Lisa Everett (<https://www.physics.wisc.edu/people/lisa-leverett>), Professor
 Cary Forest (<https://www.physics.wisc.edu/people/cary-bforest>), Professor
 Pupa Gilbert (<https://www.physics.wisc.edu/people/pupagilbert>), Professor
 Francis Halzen (<https://www.physics.wisc.edu/people/francis-lhalzen>), Professor
 Kael Hanson (<https://www.physics.wisc.edu/people/kael-dhanson>), Professor
 Aki Hashimoto (<https://www.physics.wisc.edu/people/akihashimoto>), Professor
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 John Sarff (<https://www.physics.wisc.edu/people/john-ssarff>), Professor
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 Maxim Vavilov (<https://www.physics.wisc.edu/people/maxim-gvavilov>), Professor
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 Sau Lan Wu (<https://www.physics.wisc.edu/people/sau-lanwu>), Professor

PHYSICS, DOCTORAL MINOR

REQUIREMENTS

The minor requirement in physics for nonphysics students is 12 credits numbered above 300, each passed with a grade of B or better. The program must be approved by the chair of the Physics Minor Committee before it is completed.

PEOPLE

FACULTY

Yang Bai (<https://www.physics.wisc.edu/people/yangbai>), Associate Professor
 Baha Balantekin (<https://www.physics.wisc.edu/people/bahabalantekin>), Professor
 Vernon Barger (<https://www.physics.wisc.edu/people/vernon-dbarger>), Professor
 Keith Bechtol (<https://www.physics.wisc.edu/people/keithbechtol>), Assistant Professor
 Kevin Black (<https://www.physics.wisc.edu/people/kevinblack>), Professor
 Stas Boldyrev (<https://www.physics.wisc.edu/people/stanislavboldyrev>), Professor
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 Daniel Chung (<https://www.physics.wisc.edu/people/daniel-jchung>), Professor

Deniz Yavuz (<https://www.physics.wisc.edu/people/denizyavuz>),
Professor
Ellen Zweibel (<https://www.physics.wisc.edu/people/ellen-gzweibel>),
Professor

PHYSICS, M.A.

DEPARTMENT OVERVIEW

The Department of Physics has a strong tradition of graduate study and research in astrophysics; atomic, molecular, and optical physics; condensed matter physics; high energy and particle physics; plasma physics; quantum computing; and string theory. There are many facilities for carrying out world-class research (<https://www.physics.wisc.edu/research/areas>). We also have a large professional staff: 45 full-time faculty (<https://www.physics.wisc.edu/people/staff>) members; 11 faculty members holding joint appointments with other departments; 34 assistant, associate, and senior scientists; and 46 postdocs.

The department occupies all of Chamberlin Hall and a portion of Sterling Hall, located in the central campus area. The Physics Library (<http://physics.library.wisc.edu>), (<https://www.library.wisc.edu/physics>) in Chamberlin Hall, is large and convenient to use. It has complete electronic access to databases and, of course, copy machines, and comfortable chairs. The department maintains a fine instrument and machine shop and an electronics shop (<http://uw.physics.wisc.edu/~eshop>) staffed by skilled electronics technicians. There is, in addition, a student-staff machine shop open to graduate students and supervised by an experienced machinist who assists and instructs shop users. Several computers are available for general computing, and a number of smaller machines are used for on-line control of experiments and for data collection. The Division of Information Technology (DoIT) (<http://www.doit.wisc.edu>) has a large professional staff which assists users, provides contract programming services and offers a wide variety of computing courses. Researchers have free access to large scientific computing resources (<http://aci.wisc.edu/services/large-scale>). Many research programs in physics use the Physical Sciences Laboratory (PSL) (<http://www.psl.wisc.edu>).

M.A. DEGREE DETAILS

The department offers the master of arts and master of science degrees in physics, and the doctor of philosophy degree with a major in physics.

The master of arts degree is a purely academic degree, requiring 30 credits of graduate work and passage of the qualifying examination at the master's level. It is designed to strengthen the student's physics background and enhance the opportunities for employment as a physicist or in physics education.

ADMISSIONS

Admission is competitive. All applicants are reviewed and evaluated on the basis of previous academic record, three letters of recommendation, statement of purpose for graduate studies, resume, and Graduate Record Exam (GRE) general and subject scores. The physics subject GRE exam is required. For applicants whose native language is not English, the department requires a minimum score of 580 (paper-based), 237 (computer-based), or 92 (internet-based) on the Test of English as a Foreign Language (TOEFL) exam, or 7 on the International English Language Testing System (IELTS) exam. All eligible applicants with

complete files are considered for teaching or research assistantships and fellowships. To be considered for admission, students must submit all application materials (including test scores) via the Graduate School electronic application site (<https://www.gradsch.wisc.edu/eapp/eapp.pl>) by December 15.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

FINANCIAL SUPPORT FOR GRADUATE STUDENTS IN PHYSICS

All students admitted for summer or fall term are provided with a guarantee of financial support. Typically, a graduate student is first appointed as a teaching assistant. Teaching assistants assist faculty members in the introductory physics courses, generally by teaching discussion and laboratory sections. Later, as a research assistant, the student works with a major professor on a mutually agreed research program.

Teaching Assistantships

The typical first appointment for a beginning graduate student is a teaching assistantship (TA). A teaching assistantship is both a teaching position and a means of support for graduate study. It is normally advantageous for a graduate student to hold a TA position for at least a semester during graduate studies, since the teaching activity solidifies and deepens the teaching assistant's undergraduate education in physics and also helps prepare for a possible career in teaching.

Teaching assistants and project assistants with combined graduate assistant appointments of one-third time or greater receive a remission of all in-state and out-of-state fees, except for the segregated fees (\$630.12 per semester for full-time students in the 2017–18 year). Tuition is also waived. TA appointments are granted for a semester at a time. Based on a 50% appointment at the standard rate, a TA earns approximately \$8,000 per semester.

Teaching Assistant Appointments

Initial appointments to regular teaching assistantships are made by the chairperson on the recommendation of the department's Committee on Assistantships and Fellowships. Criteria for appointment as a teaching assistant include:

1. A good academic record in an undergraduate physics major, as a graduate student in physics, or other firm evidence of mastery of undergraduate physics.
2. Working knowledge of oral and written English.
3. Ability to communicate effectively with undergraduate students.
4. Good standing as a graduate student in the University of Wisconsin. This is a university requirement for holding an assistantship. "Good standing" is defined in terms of quantity of academic work carried (number of credit hours) and the quality of the work (B average for a graduate student).
5. When several candidates are qualified according to the preceding criteria, we give preference to those who show the most promise for Ph.D. research as judged by the Committee on Assistantships and Fellowships.
6. Last-minute or short-term appointments may be made on a temporary (one semester) basis by the chairperson. Such limited term appointments do not carry any assurance of continuing support.
7. Reappointments (from limited-term status) to teaching assistantships with assurance of continuing support are made by the department after receiving the recommendation of the Teaching Assistant Review Committee. In addition to the criteria listed under (1), the criteria for reappointment as a teaching assistant include:
 8. Satisfactory performance as a teaching assistant.
 9. Satisfactory progress as a graduate student, as discussed above. Whenever possible, teaching assistantships are half-time appointments. However, appointments less than half-time may be used to meet a special need of an individual appointee, or to cover special, often last-minute, teaching assignments.
10. If a teaching assistant transfers to another department, the commitment to continuing support is terminated. However, exceptions may be made for joint Ph.D. programs or in other special circumstances, at the option of the department.

Regular Half-Time Teaching Assignments

The following assignments are typical half-time assignments. A teaching assistant should be able to do a satisfactory job in one of these assignments without exceeding the 360 hour per semester workload for half-time appointment. The amount of time spent on the assignments may, of course, fluctuate from week-to-week.

Courses // Assignment

PHYSICS 103, PHYSICS 104 // 3 laboratory-discussion sections
 PHYSICS 109 // 4 laboratory sections
 PHYSICS 201, PHYSICS 202, PHYSICS 207, PHYSICS 208 // 2 laboratory-discussion sections
 Representative breakdowns of allocation of the 360 hours among duties such as preparation, meeting classes and labs, attending lectures and course meetings, conferences with individual students, helping with registration, etc., is available in the department office.

Evaluation of Teaching Performance

The teaching performance of each teaching assistant is evaluated every semester by the TA review committee. The appointments of teaching assistants who are given unsatisfactory ratings may be terminated.

Outstanding teaching assistants may be nominated for one of the campus-wide teaching awards. Material considered in the review will include the results of teaching evaluation questionnaires filled out by the students in the teaching assistant's sections, the evaluation of the teaching assistant by the faculty member in charge of the course, and any other relevant information submitted to the committee by students, faculty, the teaching assistant in question, or other teaching assistants. A summary of the results of the evaluation is sent to each TA, and a copy is maintained by the department. Teaching assistants are required to look at this information after the review, since it is often valuable for self-evaluation and improvement.

Research Assistantships

Research assistantships are made available by individual professors to students who have decided on their field of research. Most departmental RA appointments are made for an annual (12 months) period.

Both in-state and out-of-state tuition will be waived for research assistants holding combined graduate assistant appointments of one-third time or greater. However, all students must still pay the segregated fees, which are \$630.12 per semester for full-time students for the 2017–18 year.

Applicants who wish to be considered for an RA appointment should contact the faculty (<https://www.physics.wisc.edu/people/faculty>) directly.

Fellowships

Fellowships, including University Fellowships and Advanced Opportunity Fellowships, are awarded by the Graduate School upon recommendation of the Department of Physics. In addition, the department may have additional fellowships—funded by endowments from physics department alumni—available for first-year graduate students. Information on these fellowships is available on the department website (<https://www.physics.wisc.edu/academics/gradstudents/fellowships>).

Information on nondepartmental fellowships can be found on the Graduate School funding page (<http://grad.wisc.edu/studentfunding/types>).

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 30 credits

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>). No 300-level courses will be counted toward the 30 credit minimum.

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations All master of arts degree candidates must pass the qualifying examination at the master's level.

Language Requirements Contact the program for information on any language requirements.

REQUIRED COURSES

All graduate degree candidates are required to take five core courses:

Code	Title	Credits
Required Core		
PHYSICS 711	Theoretical Physics-Dynamics	3
PHYSICS 715	Statistical Mechanics	3
PHYSICS 721	Theoretical Physics-Electrodynamics	3
PHYSICS 731	Quantum Mechanics	3
PHYSICS 732	Quantum Mechanics	3

The remaining 15 credits may be earned through a combination of coursework, directed study, and research, to be determined by the advisor in consultation with the student.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (https://www.physics.wisc.edu/sites/default/files/grad_handbook_2017-18b.pdf) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

No coursework from other institution may count toward any graduate degree in physics.

UW-Madison Undergraduate

Up to 7 credits in courses numbered 500 or above may be used to satisfy minimum degree requirements.

UW-Madison University Special

With program approval and payment of difference in tuition (between Special and graduate tuition), students are allowed to count no more than 15 credits of coursework numbered 500 or above taken as a UW-Madison University Special student. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis. The director of graduate studies (DGS) serves as the academic advisor to all master of arts degree candidates. The DGS will meet regularly with the Master's candidate to monitor progress toward the degree.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

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completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

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GRADUATE SCHOOL RESOURCES

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 Ellen Zweibel (<https://www.physics.wisc.edu/people/ellen-gzweibel>), Professor

comfortable chairs. The department maintains a fine instrument and machine shop and an electronics shop (<http://uw.physics.wisc.edu/~eshop>) staffed by skilled electronics technicians. There is, in addition, a student-staff machine shop open to graduate students and supervised by an experienced machinist who assists and instructs shop users. Several computers are available for general computing, and a number of smaller machines are used for on-line control of experiments and for data collection. The Division of Information Technology (DoIT) (<http://www.doit.wisc.edu>) has a large professional staff which assists users, provides contract programming services and offers a wide variety of computing courses. Researchers have free access to large scientific computing resources (<http://aci.wisc.edu/services/large-scale>). Many research programs in physics use the Physical Sciences Laboratory (PSL) (<http://www.psl.wisc.edu>).

M.S. DEGREE DETAILS

The department offers the master of arts and master of science degrees in physics, and the doctor of philosophy degree with a major in physics.

The master of science degree is a professional program that requires the completion of a directed master's project and thesis in the student's area of interest, 30 credits of graduate work, and passage of the qualifying examination at the master's level. It is designed to strengthen the student's background and experience in physics, and enhance the opportunities for employment as a physicist or in physics education.

The research program in physics is unusually broad in scope with active experimental and theoretical research programs in astrophysics; atomic, molecular, and optical physics; biophysics; condensed matter physics; elementary particle physics; nuclear physics; particle physics theory; phenomenology; and plasma physics. This broad range of research opportunities makes the department especially attractive to beginning students who have not yet chosen a field of specialization.

Research specialties include:

THEORETICAL PHYSICS

Astrophysics; atomic, molecular, and optical physics; condensed matter physics; cosmology; elementary particle physics; nuclear physics; phenomenology; plasmas and fusion; quantum computing; statistical and thermal physics; string theory.

EXPERIMENTAL PHYSICS

Astrophysics; atomic, molecular, and optical physics; biophysics; condensed matter physics; cosmology; elementary particle physics; neutrino physics; experimental studies of superconductors; medical physics; nuclear physics; plasma physics; quantum computing; spectroscopy.

The Department of Physics has a diverse group of graduate students who come from many countries around the world. There are typically 150–200 graduate students in the department. Virtually all students admitted receive financial support in the form of teaching or research assistantships and fellowships.

The information on courses and examinations provided in this catalog is only a brief summary of the procedures for graduate work in the department. Entering graduate candidates are supplied with additional details when they arrive. More complete information on the graduate program, the faculty, and research groups is available at the department website. (<http://www.physics.wisc.edu>)

PHYSICS, M.S.

DEPARTMENT OVERVIEW

The Department of Physics has a strong tradition of graduate study and research in astrophysics; atomic, molecular, and optical physics; condensed matter physics; high energy and particle physics; plasma physics; quantum computing; and string theory. There are many facilities for carrying out world-class research (<https://www.physics.wisc.edu/research/areas>). We have a large professional staff: 45 full-time faculty (<https://www.physics.wisc.edu/people/staff>) members; 11 faculty members holding joint appointments with other departments; 34 assistant, associate, and senior scientists; and 46 postdocs.

The department occupies all of Chamberlin Hall and a portion of Sterling Hall, located in the central campus area. The Physics Library (<http://physics.library.wisc.edu>), (<https://www.library.wisc.edu/physics>) in Chamberlin Hall, is large and convenient to use. It has complete electronic access to databases and, of course, copy machines and

ADMISSIONS

Admission is competitive. All applicants are reviewed and evaluated on the basis of previous academic record, three letters of recommendation, statement of purpose for graduate studies, resume, and Graduate Record Exam (GRE) general and subject scores. The physics subject GRE exam is required. For applicants whose native language is not English, the department requires a minimum score of 580 (paper-based), 237 (computer-based) or 92 (internet-based) on the Test of English as a Foreign Language (TOEFL) exam, or 7 on the International English Language Testing System (IELTS) exam. All eligible applicants with complete files are considered for teaching or research assistantships and fellowships. To be considered for admission for summer or fall, students must submit all application materials (including test scores) via the Graduate School electronic application site (<https://www.gradsch.wisc.edu/eapp/eapp.pl>) by December 15. The department only rarely admits for spring term and cannot guarantee support in this case. Those interested in spring admission should submit all application materials listed above by November 1.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

FINANCIAL SUPPORT FOR GRADUATE STUDENTS IN PHYSICS

All students admitted for summer or fall term are provided with a guarantee of financial support. Typically, a graduate student is first appointed as a teaching assistant. Teaching assistants assist faculty members in the introductory physics courses, generally by teaching discussion and laboratory sections. Later, as a research assistant, the student works with a major professor on a mutually agreed research program.

Teaching Assistantships

The typical first appointment for a beginning graduate student is a teaching assistantship (TA). A teaching assistantship is both a teaching position and a means of support for graduate study. It is normally advantageous for a graduate student to hold a TA position for at least a semester during graduate studies, since the teaching activity solidifies and deepens the teaching assistant's undergraduate education in physics and also helps prepare for a possible career in teaching.

Teaching assistants and project assistants with combined graduate assistant appointments of one-third time or greater receive a remission of

all in-state and out-of-state fees, except for the segregated fees (\$630.12 per semester for full-time students in the 2017–18 year). Tuition is also waived. TA appointments are granted for a semester at a time. Based on a 50% appointment at the standard rate, a TA earns approximately \$8,000 per semester.

Teaching Assistant Appointments

Initial appointments to regular teaching assistantships are made by the chairperson on the recommendation of the department's Committee on Assistantships and Fellowships. Criteria for appointment as a teaching assistant include:

1. A good academic record in an undergraduate physics major, as a graduate student in physics, or other firm evidence of mastery of undergraduate physics.
2. Working knowledge of oral and written English.
3. Ability to communicate effectively with undergraduate students.
4. Good standing as a graduate student in the University of Wisconsin. This is a university requirement for holding an assistantship. "Good standing" is defined in terms of quantity of academic work carried (number of credit hours) and the quality of the work (B average for a graduate student).
5. When several candidates are qualified according to the preceding criteria, we give preference to those who show the most promise for Ph.D. research as judged by the Committee on Assistantships and Fellowships.
6. Last-minute or short-term appointments may be made on a temporary (one semester) basis by the chairperson. Such limited term appointments do not carry any assurance of continuing support.
7. Reappointments (from limited-term status) to teaching assistantships with assurance of continuing support are made by the department after receiving the recommendation of the Teaching Assistant Review Committee. In addition to the criteria listed under (1), the criteria for reappointment as a teaching assistant include:
8. Satisfactory performance as a teaching assistant.
9. Satisfactory progress as a graduate student, as discussed above. Whenever possible, teaching assistantships are half-time appointments. However, appointments less than half-time may be used to meet a special need of an individual appointee, or to cover special, often last-minute, teaching assignments.
10. If a teaching assistant transfers to another department, the commitment to continuing support is terminated. However, exceptions may be made for joint Ph.D. programs or in other special circumstances, at the option of the department.

Regular Half-Time Teaching Assignments

The following assignments are typical half-time assignments. A teaching assistant should be able to do a satisfactory job in one of these assignments without exceeding the 360 hour per semester workload for half-time appointment. The amount of time spend on the assignments may, of course, fluctuate from week-to-week.

Courses // Assignment

PHYSICS 103, PHYSICS 104 // 3 laboratory-discussion sections
 PHYSICS 109 // 4 laboratory sections PHYSICS 201, PHYSICS 202,
 PHYSICS 207, PHYSICS 208 // 2 laboratory-discussion sections
 Representative breakdowns of allocation of the 360 hours among duties
 such as preparation, meeting classes and labs, attending lectures and
 course meetings, conferences with individual students, helping with
 registration, etc., is available in the department office.

Evaluation of Teaching Performance

The teaching performance of each teaching assistant is evaluated every semester by the TA review committee. The appointments of teaching assistants who are given unsatisfactory ratings may be terminated. Outstanding teaching assistants may be nominated for one of the campus-wide teaching awards. Material considered in the review will include the results of teaching evaluation questionnaires filled out by the students in the teaching assistant's sections, the evaluation of the teaching assistant by the faculty member in charge of the course, and any other relevant information submitted to the committee by students, faculty, the teaching assistant in question, or other teaching assistants. A summary of the results of the evaluation is sent to each TA, and a copy is maintained by the department. Teaching assistants are required to look at this information after the review, since it is often valuable for self-evaluation and improvement.

Research Assistantships

Research assistantships are made available by individual professors to students who have decided on their field of research. Most departmental RA appointments are made for an annual (12 months) period.

Both in-state and out-of-state tuition will be waived for research assistants holding combined graduate assistant appointments of one-third time or greater. However, all students must still pay the segregated fees, which are \$630.12 per semester for full-time students for the 2017–18 year.

Applicants who wish to be considered for an RA appointment should contact the faculty (<https://www.physics.wisc.edu/people/faculty>) directly.

Fellowships

Fellowships, including University Fellowships and Advanced Opportunity Fellowships, are awarded by the Graduate School upon recommendation of the Department of Physics. In addition, the department may have additional fellowships—funded by endowments from physics department alumni—available for first-year graduate students. Information on these fellowships is available on the department website (<https://www.physics.wisc.edu/academics/gradstudents/fellowships>).

Information on nondepartmental fellowships can be found on the Graduate School funding page (<http://grad.wisc.edu/studentfunding/types>).

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 30 credits

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>). No 300-level courses will be counted toward the 30 credit minimum.

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations All master of science degree candidates must pass the qualifying examination at the master's level.
 Master of science degree candidates must write a master's thesis and defend that thesis in a seminar.

Language Requirements Contact the program for information on any language requirements.

REQUIRED COURSES

All graduate degree candidates are required to take five core courses:

Code	Title	Credits
Required Core		
PHYSICS 711	Theoretical Physics-Dynamics	3
PHYSICS 715	Statistical Mechanics	3
PHYSICS 721	Theoretical Physics-Electrodynamics	3
PHYSICS 731	Quantum Mechanics	3
PHYSICS 732	Quantum Mechanics	3

The remaining 15 credits may be earned through a combination of research (PHYSICS 990 Research) and coursework, to be determined by the advisor in consultation with the student.

major professor (permanent advisor) is entirely with the student. Acceptance for M.S. research by a professor depends on the professor's appraisal of the student's potential for research and on the ability of the professor to accept a student at that time. Usually the major professor will be able to offer support in the form of a research assistantship, but this is not always the case, and occasionally a student may need to work as a teaching assistant while performing thesis research.

Graduate students should begin research work as early as possible. Students are encouraged to acquire a major professor (advisor) and begin research by the end of the second semester. Summer is the ideal time to begin research unencumbered by coursework or teaching. Students who do not acquire a research advisor and begin research by the end of their third semester may be dropped from the program.

All M.S. candidates write a master's thesis and present their research in a seminar. All master's theses must be approved a committee comprised of the student's advisor and one additional faculty member.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (https://www.physics.wisc.edu/sites/default/files/grad_handbook_2017-18b.pdf) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

No coursework from other institution may count toward any graduate degree in physics.

UW-Madison Undergraduate

Up to 7 credits in courses numbered 500 or above may be used to satisfy minimum degree requirements.

UW-Madison University Special

With program approval and payment of difference in tuition (between Special and graduate tuition), students are allowed to count no more than 15 credits of coursework numbered 500 or above taken as a UW-Madison University Special student. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

All students are assigned a temporary advisor upon matriculation. The responsibility to acquire (choose and be accepted by) a

CREDITS PER TERM ALLOWED

15 credits

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PHYSICS: QUANTUM COMPUTING, M.S.

DEPARTMENT OVERVIEW

The Department of Physics has a strong tradition of graduate study and research in astrophysics; atomic, molecular, and optical physics; condensed matter physics; high energy and particle physics; plasma physics; quantum computing; and string theory. There are many facilities for carrying out world-class [research](https://www.physics.wisc.edu/research/areas) (<https://www.physics.wisc.edu/research/areas>). We have a large professional staff: 45 full-time [faculty](https://www.physics.wisc.edu/people/staff) (<https://www.physics.wisc.edu/people/staff>) members; 11 faculty members holding joint appointments with other departments; 34 assistant, associate, and senior scientists; and 46 postdocs. The Department of Physics has a diverse group of graduate students who come from many countries around the world. There are typically 150–200 graduate students in the department. More information is available on the department website [department website](http://www.physics.wisc.edu). (<http://www.physics.wisc.edu>)

The department occupies all of Chamberlin Hall and a portion of Sterling Hall, located in the central campus area. [The Physics Library](http://physics.library.wisc.edu) (<http://physics.library.wisc.edu>), (<https://www.library.wisc.edu/physics>) in Chamberlin Hall, is large and convenient to use. It has complete electronic access to databases and, of course, copy machines and comfortable chairs. The department maintains a fine instrument and machine shop and an [electronics shop](http://uw.physics.wisc.edu/~eshop) (<http://uw.physics.wisc.edu/~eshop>) staffed by skilled electronics technicians. There is, in addition, a student-staff machine shop open to graduate students and supervised by an experienced machinist who assists and instructs shop users. Several computers are available for general computing, and a number of smaller machines are used for on-line control of experiments and for data collection. The [Division of Information Technology \(DoIT\)](http://www.doit.wisc.edu) (<http://www.doit.wisc.edu>) has a large professional staff which assists users, provides contract programming services and offers a wide variety of computing courses. Researchers have free access to [large scientific computing resources](http://aci.wisc.edu/services/large-scale) (<http://aci.wisc.edu/services/large-scale>). Many research programs in physics use the [Physical Sciences Laboratory \(PSL\)](http://www.psl.wisc.edu) (<http://www.psl.wisc.edu>).

M.S. IN PHYSICS – QUANTUM COMPUTING

In addition to the M.S. degree in Physics (<http://guide.wisc.edu/graduate/physics/physics-ms>), there is also a M.S. named option in Quantum Computing. The M.S. in Physics-Quantum Computing is an intensive professional master's degree and is designed to be completed in one calendar year. The program provides students with a thorough grounding in the new discipline of quantum information and quantum computing. This begins with a study of the relevant parts of quantum theory, and proceeds to quantum gates, measurements, algorithms,

quantum error correction and decoherence. Quantum communication theory and the secure transmission of information are also covered. The supporting areas of statistical mechanics, solid-state physics and atomic physics form part of the classroom training. Just as important, the program gives students a mastery of the advanced lab skills involved in quantum computation. Students who graduate from this program will have the tools to succeed as researchers or program managers in a quantum computing or quantum technologies enterprise. They may also use the program as a springboard to Ph.D. programs in physics or related areas.

The tuition for this program is \$1,600/ credit hour. Students in this program cannot accept research assistantships, teaching assistantships, project assistantships or other university appointments that grant waivers of tuition and/or academic fees.

PEOPLE

M.S. in Physics - Quantum Computing

Faculty:

Professors Coopersmith, Eriksson, Loffe, Joynt, Kolkowitz, Levchenko, McDermott, Saffman, Vavilov, Walker, and Yavuz are core faculty in the area of quantum computing.

Administration:

The MSPQC Program Director is Professor Robert Joynt. The MSPQC Committee Members are Robert Joynt (Chair), Mark Saffman, Mark Eriksson, Robert McDermott, Deniz Yavuz (Chair of the Graduate Program Committee), Stas Boldyrev (Chair of the Admissions Committee), Michelle Holland (Graduate Program Coordinator).

Contacts:

Please contact the Physics Graduate Program Coordinator Michelle Holland (michelle.holland@wisc.edu) for general inquiries about the department's graduate programs, and Prof. Robert Joynt (rjoynt@wisc.edu) with inquiries specific to the M.S.-Quantum Computing.

PHYSICS, PH.D.

DEPARTMENT OVERVIEW

The Department of Physics has a strong tradition of graduate study and research in astrophysics; atomic, molecular, and optical physics; condensed matter physics; high energy and particle physics; plasma physics; quantum computing; and string theory. There are many facilities for carrying out world-class [research](https://www.physics.wisc.edu/research/areas) (<https://www.physics.wisc.edu/research/areas>). We have a large professional staff: 45 full-time faculty (<https://www.physics.wisc.edu/people/staff>) members; 11 faculty members holding joint appointments with other departments; 34 assistant, associate, and senior scientists; and 46 postdocs.

The department occupies all of Chamberlin Hall and a portion of Sterling Hall, located in the central campus area. [The Physics Library](http://physics.library.wisc.edu) (<http://physics.library.wisc.edu>), (<https://www.library.wisc.edu/physics>) in Chamberlin Hall, is large and convenient to use. It has complete electronic access to databases and, of course, copy machines and comfortable chairs. The department maintains a fine instrument and

machine shop and an electronics shop (<http://uw.physics.wisc.edu/~eshop>) staffed by skilled electronics technicians. There is, in addition, a student-staff machine shop open to graduate students and supervised by an experienced machinist who assists and instructs shop users. Several computers are available for general computing, and a number of smaller machines are used for on-line control of experiments and for data collection. The Division of Information Technology (DoIT) (<http://www.doit.wisc.edu>) has a large professional staff which assists users, provides contract programming services and offers a wide variety of computing courses. Researchers have free access to large scientific computing resources (<http://aci.wisc.edu/services/large-scale>). Many research programs in physics use the Physical Sciences Laboratory (PSL) (<http://www.psl.wisc.edu>).

PH.D. DEGREE DETAILS

The Ph.D. degree requires successful completion of advanced course work in physics, completion of a minor, and passage of the qualifying and preliminary examinations. However, the Ph.D. is primarily a research degree, awarded only upon completion of substantial original research in some subfield of physics. The program provides the background, experience, and credentials needed for employment as a professional physicist in research or education.

The research program in physics is unusually broad in scope with active experimental and theoretical research programs in astrophysics; atomic, molecular, and optical physics; biophysics; condensed matter physics; elementary particle physics; nuclear physics; particle physics theory; phenomenology; and plasma physics. This broad range of research opportunities makes the department especially attractive to beginning students who have not yet chosen a field of specialization.

Research specialties include:

THEORETICAL PHYSICS

Astrophysics; atomic, molecular, and optical physics; condensed matter physics; cosmology; elementary particle physics; nuclear physics; phenomenology; plasmas and fusion; quantum computing; statistical and thermal physics; string theory.

EXPERIMENTAL PHYSICS

Astrophysics; atomic, molecular, and optical physics; biophysics; condensed matter physics; cosmology; elementary particle physics; neutrino physics; experimental studies of superconductors; medical physics; nuclear physics; plasma physics; quantum computing; spectroscopy.

The Department of Physics has a diverse group of graduate students who come from many countries around the world. There are typically 150–200 graduate students in the department. Virtually all students admitted receive financial support in the form of teaching or research assistantships and fellowships.

The information on courses and examinations provided in this catalog is only a brief summary of the procedures for graduate work in the department. Entering graduate candidates are supplied with additional details when they arrive. More complete information on the graduate program, the faculty, and research groups is available at the department website (<http://www.physics.wisc.edu>).

ADMISSIONS

Admission is competitive. All applicants are reviewed and evaluated on the basis of previous academic record, three letters of recommendation, statement of purpose for graduate studies, resume, and Graduate Record Exam (GRE) general and subject scores. The physics subject GRE exam is required. For applicants whose native language is not English, the department requires a minimum score of 580 (paper-based), 237 (computer-based) or 92 (internet-based) on the Test of English as a Foreign Language (TOEFL) exam, or 7 on the International English Language Testing System (IELTS) exam. All eligible applicants with complete files are considered for teaching or research assistantships and fellowships. To be considered for admission for summer or fall, students must submit all application materials (including test scores) via the Graduate School electronic application site (<https://www.gradsch.wisc.edu/eapp/eapp.pl>) by December 15. The department only rarely admits for spring term and cannot guarantee support in this case. Those interested in spring admission should submit all application materials listed above by November 1.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

FINANCIAL SUPPORT FOR GRADUATE STUDENTS IN PHYSICS

All students admitted for summer or fall term are provided with a guarantee of financial support. Typically, a graduate student is first appointed as a teaching assistant. Teaching assistants assist faculty members in the introductory physics courses, generally by teaching discussion and laboratory sections. Later, as a research assistant, the student works with a major professor on a mutually agreed research program.

Teaching Assistantships

The typical first appointment for a beginning graduate student is a teaching assistantship (TA). A teaching assistantship is both a teaching position and a means of support for graduate study. It is normally advantageous for a graduate student to hold a TA position for at least a semester during graduate studies, since the teaching activity solidifies and deepens the teaching assistant's undergraduate education in physics and also helps prepare for a possible career in teaching.

Teaching assistants and project assistants with combined graduate assistant appointments of one-third time or greater receive a remission of

all in-state and out-of-state fees, except for the segregated fees (\$630.12 per semester for full-time students in the 2017–18 year). Tuition is also waived. TA appointments are granted for a semester at a time. Based on a 50% appointment at the standard rate, a TA earns approximately \$8,000 per semester.

Teaching Assistant Appointments

Initial appointments to regular teaching assistantships are made by the chairperson on the recommendation of the department's Committee on Assistantships and Fellowships. Criteria for appointment as a teaching assistant include:

1. A good academic record in an undergraduate physics major, as a graduate student in physics, or other firm evidence of mastery of undergraduate physics.
2. Working knowledge of oral and written English.
3. Ability to communicate effectively with undergraduate students.
4. Good standing as a graduate student in the University of Wisconsin. This is a university requirement for holding an assistantship. "Good standing" is defined in terms of quantity of academic work carried (number of credit hours) and the quality of the work (B average for a graduate student).
5. When several candidates are qualified according to the preceding criteria, we give preference to those who show the most promise for Ph.D. research as judged by the Committee on Assistantships and Fellowships.
6. Last-minute or short-term appointments may be made on a temporary (one semester) basis by the chairperson. Such limited term appointments do not carry any assurance of continuing support.
7. Reappointments (from limited-term status) to teaching assistantships with assurance of continuing support are made by the department after receiving the recommendation of the Teaching Assistant Review Committee. In addition to the criteria listed under (1), the criteria for reappointment as a teaching assistant include:
8. Satisfactory performance as a teaching assistant.
9. Satisfactory progress as a graduate student, as discussed above. Whenever possible, teaching assistantships are half-time appointments. However, appointments less than half-time may be used to meet a special need of an individual appointee, or to cover special, often last-minute, teaching assignments.
10. If a teaching assistant transfers to another department, the commitment to continuing support is terminated. However, exceptions may be made for joint Ph.D. programs or in other special circumstances, at the option of the department.

Regular Half-Time Teaching Assignments

The following assignments are typical half-time assignments. A teaching assistant should be able to do a satisfactory job in one of these assignments without exceeding the 360 hour per semester workload for half-time appointment. The amount of time spend on the assignments may, of course, fluctuate from week-to-week.

Courses // Assignment

PHYSICS 103, PHYSICS 104 // 3 laboratory-discussion sections
 PHYSICS 109 // 4 laboratory sections
 PHYSICS 201, PHYSICS 202, PHYSICS 207, PHYSICS 208 // 2 laboratory-discussion sections
 Representative breakdowns of allocation of the 360 hours among duties such as preparation, meeting classes and labs, attending lectures and course meetings, conferences with individual students, helping with registration, etc., is available in the department office.

Evaluation of Teaching Performance

The teaching performance of each teaching assistant is evaluated every semester by the TA review committee. The appointments of teaching assistants who are given unsatisfactory ratings may be terminated. Outstanding teaching assistants may be nominated for one of the campus-wide teaching awards. Material considered in the review will include the results of teaching evaluation questionnaires filled out by the students in the teaching assistant's sections, the evaluation of the teaching assistant by the faculty member in charge of the course, and any other relevant information submitted to the committee by students, faculty, the teaching assistant in question, or other teaching assistants. A summary of the results of the evaluation is sent to each TA, and a copy is maintained by the department. Teaching assistants are required to look at this information after the review, since it is often valuable for self-evaluation and improvement.

Research Assistantships

Research assistantships are made available by individual professors to students who have decided on their field of research. Most departmental RA appointments are made for an annual (12 months) period.

Both in-state and out-of-state tuition will be waived for research assistants holding combined graduate assistant appointments of one-third time or greater. However, all students must still pay the segregated fees, which are \$630.12 per semester for full-time students for the 2017–18 year.

Applicants who wish to be considered for an RA appointment should contact the faculty (<https://www.physics.wisc.edu/people/faculty>) directly.

Fellowships

Fellowships, including University Fellowships and Advanced Opportunity Fellowships, are awarded by the Graduate School upon recommendation of the Department of Physics. In addition, the department may have additional fellowships—funded by endowments from physics department alumni—available for first-year graduate students. Information on these fellowships is available on the department website (<https://www.physics.wisc.edu/academics/gradstudents/fellowships>).

Information on nondepartmental fellowships can be found on the Graduate School funding page (<http://grad.wisc.edu/studentfunding/types>).

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 51 credits

Minimum Residence Credit Requirement 51 credits

Minimum Graduate Coursework Requirement Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle>). No 300-level courses will be counted toward the 51 credit minimum.

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Physics doctoral students are required to pass the qualifying examination at the Ph.D. level by the end of their third semester.

Additionally, students are required to take a comprehensive preliminary/oral examination by the end of their fifth semester. All Incomplete and Progress grades (other than research and thesis) must be cleared from the student's record prior to taking the preliminary examination.

A final oral defense and deposit of the doctoral dissertation in the Graduate School is required.

Language Requirements Contact the program for information on any language requirements.

Doctoral Minor/Breadth Requirements All doctoral students are required to complete a minor.

REQUIRED COURSES

All graduate degree candidates are required to take five core courses:

Code	Title	Credits
Required Core		
PHYSICS 711	Theoretical Physics-Dynamics	3
PHYSICS 715	Statistical Mechanics	3
PHYSICS 721	Theoretical Physics-Electrodynamics	3
PHYSICS 731	Quantum Mechanics	3
PHYSICS 732	Quantum Mechanics	3

Each course must be repeated until a grade of at least a B is earned.

Most entering students take two of these core courses in the fall semester and two in the spring semester. All core courses must be completed by the end of the fourth semester of the student's program.

All first year graduate students are required to attend the Graduate Introductory Seminar Series held each fall.

Entering graduate students should check that their undergraduate work was equivalent to a complete physics major. Students without the experience of a senior advanced laboratory course should consider PHYSICS 507. PHYSICS 623 and PHYSICS 625 are important for an understanding of experiments in most research areas and should be taken as soon as possible. The remaining 500 and 600 level courses in the student's area of interest should also be taken as early as possible.

PHYSICS 551 should be taken by students interested in Condensed Matter Physics or related areas such as spectroscopy. Students interested in space physics or astrophysics should take courses in astrophysics which are at least equivalent to the requirements for a minor in Astronomy. PHYSICS 545 gives a good general introduction to atomic physics. Those interested in plasma physics should begin the sequence of plasma courses with PHYSICS/E C E/N E 525. PHYSICS 535 and / or PHYSICS 735 should be taken by students interested in high energy physics.

All graduate students are required to attend the weekly colloquium, PHYSICS 900. Students are also expected to regularly attend at least one of the weekly research seminars numbered above 900.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (https://www.physics.wisc.edu/sites/default/files/grad_handbook_2017-18b.pdf) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

No coursework from other institution may count toward any graduate degree in physics.

UW-Madison Undergraduate

Up to 7 credits in courses numbered 500 or above may be used to satisfy minimum degree requirements.

UW-Madison University Special

With program approval and payment of difference in tuition (between Special and graduate tuition), students are allowed to count no more than 15 credits of coursework numbered 500 or above taken as a UW-Madison University Special student. Coursework earned five or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

All students are assigned a temporary advisor upon matriculation. The responsibility to acquire (choose and be accepted by) a major professor (permanent advisor) is entirely with the student. Acceptance for Ph.D. research by a professor depends on the professor's appraisal of the student's potential for research and on the ability of the professor to accept a student at that time. Usually the major professor will be able to offer support in the form of a research assistantship, but this is not always the case, and occasionally a student may need to work as a teaching assistant while performing thesis research.

Graduate students should begin research work as early as possible. Students are encouraged to acquire a major professor (advisor) and begin research by the end of the second semester. Summer is the ideal time to begin research unencumbered by coursework or teaching. Students who do not acquire a research advisor and begin

research by the end of their third semester may be dropped from the program.

At the time of the preliminary examination (the student's fifth semester), the major professor and three additional faculty members will form a committee that will evaluate and advise the student. This committee will meet regularly with the student from the time the preliminary examination is passed to the time of the final oral defense. The committee will report the student's progress annually to the director of graduate studies.

At the time of the final oral defense, a fifth member will be added to the Preliminary Examination Committee. All Final Oral Defense Committee members will serve as readers of the student's thesis.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

OTHER

Typical funding is through 50% assistantships. Virtually 100% of enrolled students are funded for the duration of their degree. All programs are full time and require full-time student enrollment during fall and spring terms.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROFESSIONAL DEVELOPMENT OPPORTUNITIES FOR PHYSICS GRADUATE STUDENTS

Our students have multiple opportunities for professional development throughout their graduate careers. As an integral part of research experience, students regularly work at CERN, national laboratories (Argonne, FermiLab), IceCube Neutrino Observatory at the South Pole, etc.

Students are encouraged to travel to relevant conferences across the U.S. and the globe. Our students regularly attend the annual American Physical Society (APS) March Meeting and are encouraged to attend APS meetings in their sub-field throughout the year. We also encourage

students to attend summer schools at various host institutions to expand their knowledge and to interact with fellow scientists in their field.

All incoming graduate students receive extensive TA training during a weeklong, comprehensive program designed and implemented by our Director of Undergraduate Studies. Students are also encouraged to join the DELTA program on campus which provides excellent training and mentorship for those interested in teaching. Each spring we offer a for-credit course PHYSICS 603 Workshop in College Physics Teaching. This gives our students the opportunity to learn effective teaching methods, do research into new teaching practices, and provides a forum for students and the instructor to openly discuss challenges and rewards of teaching.

Students are also encouraged to attend Graduate School–sponsored professional development events and participate in Graduate School professional development resources, such as the Individual Development Plan (IDP).

LEARNING OUTCOMES

1. Formulates and plans original research.
2. Formulates ideas, concepts, designs, and/or techniques beyond the current boundaries of knowledge within the field of physics.
3. Creates research, scholarship, or performance that makes a substantive contribution to the field of physics.
4. Gains a broad awareness of the status of contemporary research beyond the student's area of specialization.
5. Gains a deep awareness of the status of research in the student's area of specialization.
6. Advances contributions in the field of physics to society.
7. Learns to engage and communicate with other research professionals.
8. Fosters ethical and professional conduct.

PEOPLE

FACULTY

Yang Bai (<https://www.physics.wisc.edu/people/yangbai>), Associate Professor

Baha Balantekin (<https://www.physics.wisc.edu/people/bahabalantekin>), Professor

Vernon Barger (<https://www.physics.wisc.edu/people/vernon-dbarger>), Professor

Keith Bechtol (<https://www.physics.wisc.edu/people/keithbechtol>), Assistant Professor

Kevin Black (<https://www.physics.wisc.edu/people/kevinblack>), Professor

Stas Boldyrev (<https://www.physics.wisc.edu/people/stanislaboldyrev>), Professor

Tulika Bose (<https://www.physics.wisc.edu/people/tulikabose>), Professor

Victor Brar (<https://www.physics.wisc.edu/people/victorbrar>), Assistant Professor

Duncan Carlsmith (<https://www.physics.wisc.edu/people/duncancarlsmith>), Professor

Daniel Chung (<https://www.physics.wisc.edu/people/daniel-jchung>), Professor

Susan Coppersmith (<https://www.physics.wisc.edu/people/susanncoppersmith>), Professor

Sridhara Dasu (<https://www.physics.wisc.edu/people/sridharadasu>), Department Chair and Professor

Jan Egedal (<https://www.physics.wisc.edu/people/janegedal>), Professor

Mark Eriksson (<https://www.physics.wisc.edu/people/mark Eriksson>), Professor

Lisa Everett (<https://www.physics.wisc.edu/people/lisa-leverett>), Professor

Cary Forest (<https://www.physics.wisc.edu/people/cary-bforest>), Professor

Pupa Gilbert (<https://www.physics.wisc.edu/people/pupagilbert>), Professor

Francis Halzen (<https://www.physics.wisc.edu/people/francis-lhalzen>), Professor

Kael Hanson (<https://www.physics.wisc.edu/people/kael-dhanson>), Professor

Aki Hashimoto (<https://www.physics.wisc.edu/people/akihashimoto>), Professor

Matthew Herndon (<https://www.physics.wisc.edu/people/matthew-fherndon>), Professor

Lev Ioffe (<https://www.physics.wisc.edu/people/levioffe>), Professor

Robert Joynt (<https://www.physics.wisc.edu/people/robert-jjoynt>), Professor

Albrecht Karle (<https://www.physics.wisc.edu/people/albrechtkarle>), Professor

Shimon Kolkowitz (<https://www.physics.wisc.edu/people/shimonkolkowitz>), Assistant Professor

James Lawler (<https://www.physics.wisc.edu/people/james-elawler>), Professor

Alex Levchenko (<https://www.physics.wisc.edu/people/alexlevchenko>), Associate Professor

Dan McCammon (<https://www.physics.wisc.edu/people/danmccammon>), Professor

Robert McDermott (<https://www.physics.wisc.edu/people/robert-fmcdermott>), Professor

Marshall Onellion (<https://www.physics.wisc.edu/people/marshall-fonellion>), Professor

Kimberly Palladino (<https://www.physics.wisc.edu/people/kimberly-jpalladino>), Assistant Professor

Yibin Pan (<https://www.physics.wisc.edu/people/yibinpan>), Associate Professor

Brian Rebel (<https://www.physics.wisc.edu/people/brianrebel>), Associate Professor

Mark Rzechowski (<https://www.physics.wisc.edu/people/markrzechowski>), Professor

Mark Saffman (<https://www.physics.wisc.edu/people/marksaffman>), Professor

John Sarff (<https://www.physics.wisc.edu/people/john-ssarff>), Professor

Gary Shiu (<https://www.physics.wisc.edu/people/garyshiu>), Professor

Paul Terry (<https://www.physics.wisc.edu/people/paul-wterry>), Professor

Peter Timbie (<https://www.physics.wisc.edu/people/peter-ttimbie>), Professor

Justin Vandenbroucke (<https://www.physics.wisc.edu/people/justinvandenbroucke>), Assistant Professor

Maxim Vavilov (<https://www.physics.wisc.edu/people/maxim-gvavilov>), Professor

Thad Walker (<https://www.physics.wisc.edu/people/thad-gwalker>), Professor

Sau Lan Wu (<https://www.physics.wisc.edu/people/sau-lanwu>),
Professor
Deniz Yavuz (<https://www.physics.wisc.edu/people/denizyavuz>),
Professor
Ellen Zweibel (<https://www.physics.wisc.edu/people/ellen-gzweibel>),
Professor

PLANNING AND LANDSCAPE ARCHITECTURE

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE PROFESSIONAL/CERTIFICATES

- Landscape Architecture, Doctoral Minor (p. 1157)
- Landscape Architecture, M.S. (p. 1157)
- Urban and Regional Planning, Doctoral Minor (p. 1160)
- Urban and Regional Planning, M.S. (p. 1161)
- Urban and Regional Planning, Ph.D. (p. 1165)

PEOPLE

LANDSCAPE ARCHITECTURE

Faculty: Professors Harrington (chair), Howell, Silbernagel; Associate Professors Dennis, Gilmore; Assistant Professors Bart, Thorleifsdottir

URBAN AND REGIONAL PLANNING

Faculty: Professors Jacobs, LaGro, Marcouiller, Ohm; Associate Professors Genskow (chair), Morales, Paulsen; Assistant Professor Gocmen

<https://dpla.wisc.edu/facstaff/faculty>

LANDSCAPE ARCHITECTURE, DOCTORAL MINOR

Students enrolled in other doctoral programs may pursue a doctoral minor in Landscape Architecture. Students with interest in gaining training in restoration ecology and ecological design, community and urban landscape studies, food and agriculture, natural resource management, cultural and environmental stewardship, human health and well-being, and community development to supplement their primary disciplinary program may consider an Option A minor in Landscape Architecture.

REQUIREMENTS

Graduate students who wish to pursue a doctoral minor in Landscape Architecture must have a Landscape Architecture faculty member serve as the minor professor on their research committees (oral preliminary exam committee and final exam committee).

Courses are chosen in conjunction with the minor professor and the committee to provide relevant breadth in the student's training. A student may earn a doctoral minor in Landscape Architecture with 9 graduate-

level credits in Landscape Architecture. The proposed course plan to satisfy Option A minor must be approved by the minor professor.

PEOPLE

Faculty: Professors Janet Gilmore, John Harrington, Evelyn Howell, Janet Silbernagel; Associate Professors David Bart, Sam Dennis; Assistant Professors Kristin Thorleifsdottir

dpla.wisc.edu/facstaff/faculty (<https://dpla.wisc.edu/facstaff/faculty>)

LANDSCAPE ARCHITECTURE, M.S.

The graduate program in landscape architecture at UW–Madison provides intensive research training and experience in interdisciplinary approaches to the study of landscape and real-world applications. The department offers a master of science with an emphasis on conducting original research in the form of a thesis and a master of arts based on creating evidence-based design solutions to complex landscape problems. Within both programs students will contribute to developing a scholarly foundation for the discipline of landscape architecture and related fields, and contribute information to practitioners engaged in landscape decision-making and stewardship. The department does not offer a professional master's degree (MLA).

The graduate program provides an interdisciplinary education that uses the sciences, arts and humanities to respond to current issues in the realms of food and agriculture, natural resource and cultural and environmental stewardship, human health and well-being, and community development. Most students specialize in one of two areas that reflect the research interests of the faculty: restoration ecology and ecological design, and community and urban landscape studies.

The department has well-equipped computer facilities, including CAD, GIS, and graphics software packages.

ADMISSIONS

A bachelor's degree is required of all prospective candidates. The department's Graduate Program Committee screens applicants on the basis of university transcripts for all previous work, three letters of recommendation, samples of creative work or writing, and a letter of intent describing how the student's graduate educational needs can be fulfilled by this program. Graduate Record Exam (GRE) scores are also required. Every applicant whose native language is not English, or whose undergraduate instruction was not in English, must provide official scores from the Test of English as a Foreign Language (TOEFL). Scores are also acceptable from the Michigan English Language Assessment Battery (MELAB) or the International English Language Testing System (IELTS).

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Financial support for graduate students is available through research and teaching assistantships, and competitive Graduate School and departmental fellowships. Most teaching assistantships are awarded to students who already have professional landscape architectural design training and experience.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum
Credit
Requirement

Minimum Residence Credit Requirement	16 credits
Minimum Graduate Coursework Requirement	Half of degree coursework must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (https://registrar.wisc.edu/course-guide/).
Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.
Assessments and Examinations	Contact the program for information on required assessments and examinations.
Language Requirements	Contact the program for information on any language requirements.

REQUIRED COURSES

Graduate Core (All Students Take)

Code	Title	Credits
LAND ARC 710	Theories of Landscape Change	2
LAND ARC 720	Critical Inquiry into Landscape Design Expression	2
LAND ARC 940	Graduate Seminar (Two Semesters)	1-2

A course in research methods, as approved by the student's advisor and thesis committee

An additional two courses within a focus area that are selected by the student and his/her advisory committee.

¹ Most likely LAND ARC 740 Research in Landscape Architecture.

Community and Urban Landscape Studies Track ¹

Students choose courses in consultation with their advisor.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Restoration Ecology and Ecological Design Track ¹

Code	Title	Credits
Track Core Requirements		
LAND ARC 651	Plant Community Restoration and Management Workshop	
LAND ARC 668	Restoration Ecology	
LAND ARC 866	Seminar in Natural Plant Community Restoration and Management	

Tools ²

Statistics course ³

LAND ARC/ ENVIR ST/ SOIL SCI 695	Applications of Geographic Information Systems in Natural Resources	
Field Methods course ⁴		
Supplemental Options (At least one course in two of the following areas)		6
<i>Human-Environmental Interactions</i>		
C&E SOC/ SOC 357	Methods of Sociological Inquiry	
GEOG/ATM OCN/ ENVIR ST 332	Global Warming: Science and Impacts	
GEOG 329	Landforms and Landscapes of North America	
GEOG/C&E SOC/ ENVIR ST 434	People, Wildlife and Landscapes	
F&W ECOL/A A E/ ENVIR ST 652	Decision Methods for Natural Resource Managers	
LAND ARC 375	Special Topics	
SOIL SCI/ ENVIR ST 575	Assessment of Environmental Impact	
<i>Physical Environments</i>		
SOIL SCI 305	Field Study of Soil	
SOIL SCI/ PL PATH 323	Soil Biology	
SOIL SCI 499	Soil Management	
<i>Advanced GIS</i>		
<i>Ecology</i>		
BOTANY 400	Plant Systematics	
BOTANY 401	Vascular Flora of Wisconsin	
BOTANY/ F&W ECOL 402	Dendrology	
BOTANY 403	Field Collections and Identification	
BOTANY/ F&W ECOL 455	The Vegetation of Wisconsin	
BOTANY/ AMER IND/ ANTHRO 474	Ethnobotany	
BOTANY 500	Plant Physiology	
ENTOM/ ZOOLOGY 302	Introduction to Entomology	
ENTOM/BOTANY/ ZOOLOGY 473	Plant-Insect Interactions	
F&W ECOL 318	Principles of Wildlife Ecology	
F&W ECOL 379	Principles of Wildlife Management	
F&W ECOL/ ENVIR ST/ ZOOLOGY 360	Extinction of Species	
F&W ECOL/ ENVIR ST/G L E/ GEOG/GEOSCI/ LAND ARC 371	Introduction to Environmental Remote Sensing	
F&W ECOL 550	Forest Ecology	
F&W ECOL 561	Wildlife Management Techniques	
F&W ECOL/ LAND ARC/ ZOOLOGY 565	Principles of Landscape Ecology	

F&W ECOL/ BOTANY/ ZOOLOGY 879	Advanced Landscape Ecology
LAND ARC 375	Special Topics
ZOOLOGY 504	Modeling Animal Landscapes
ZOOLOGY/ AN SCI/ F&W ECOL 520	Ornithology
<i>Civil and Environmental Engineering</i>	
CIV ENGR 310	Fluid Mechanics
CIV ENGR 311	Hydroscience

- These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.
- Students must take all or demonstrate proficiency.
- For example, STAT/F&W ECOL/HORT 571 Statistical Methods for Bioscience I and STAT/F&W ECOL/HORT 572 Statistical Methods for Bioscience II, STAT 301 Introduction to Statistical Methods.
- For example, LAND ARC/ENVIR ST 361 Wetlands Ecology.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://dpla.wisc.edu/academics/handbooks>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 9 credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the graduate degree.

UW–Madison University Special

With program approval, students are allowed to count no more than 15 credits of coursework numbered 300 or above taken as a UW–Madison Special student. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure they are making satisfactory progress toward a degree, the Graduate School expects that students meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

n/a

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Be able to engage critically with the scholarship and theory of landscape architecture. (M.S.)
2. Be able to demonstrate advanced critical thinking and the ability to explore ideas in depth and synthesize information with a high degree of competence. (M.S.)
3. Be able to demonstrate an advanced understanding of landscape spaces, functions, and dynamics, as well as interactions between people and the built and natural environment. (M.S.)
4. Be able to demonstrate a deep understanding of and the ability to critically evaluate the principles, theories, technical skills and recent research findings specific to at least one of the program's focus areas:

Restoration Ecology and Ecological Design and Community and Urban Studies. (M.S.)

5. Be able to design and conduct original research, and communicate the results to scholars as well as to practitioners engaged in landscape decision-making and stewardship. (M.S.)

6. Be able to describe and apply principles of ethical and professional conduct. (M.S.)

PEOPLE

Faculty: Professors Janet Gilmore, John Harrington, Evelyn Howell, Janet Silbernagel; Associate Professors David Bart, Sam Dennis; Assistant Professors Kristin Thorleifsdottir

<https://dpla.wisc.edu/facstaff/faculty>

URBAN AND REGIONAL PLANNING, DOCTORAL MINOR

REQUIREMENTS

The minor in the urban and regional planning shall consist of 12 credits of coursework taken in the department (http://guide.wisc.edu/courses/urb_r_pl).

Courses shall be taken with those faculty who have some percent of budgeted appointment in the department (so-called core faculty).

Courses taken shall be at the 600 level and above, excluding URB R PL 699 Directed Study, and no more than 3 credits of URB R PL 999 Independent Work.

The student, in consultation with the department's minor advisor (the Ph.D. program committee chair unless otherwise designated), shall select the 12 credits. To the extent possible, the student shall select a set of courses which give the student a breadth of understanding of the theory and methods of the field of urban and regional planning, and which provide some depth in an area of urban and regional planning concentration. Students should consider consulting with a member of the faculty on the selection of these courses, and if possible should secure a note of endorsement from said faculty member for their course selection.

The student shall execute a minor agreement (on a form to be provided by the Ph.D. program committee) specifying the courses that the student will take. On completion of all the agreed-upon courses, the student's warrant will be signed by the chair of the Ph.D. program committee.

A 3.5 grade point average shall be required for minor certification. If a student does not achieve this GPA in the four courses the student identifies, the student may, in consultation with the minor advisor, select additional courses, so that the student completes four courses where the average GPA is 3.5.

The Ph.D. program committee shall review the merits of individual requests for the application of credits from other institutions toward a minor in the urban and regional planning. The total number of credits that may be accepted in this manner will not exceed 6.

PEOPLE

Faculty: Professors Jacobs, LaGro, Marcouiller, Ohm; Associate Professors Genskow (chair), Morales, Paulsen; Assistant Professor Gocmen

URBAN AND REGIONAL PLANNING, M.S.

The department's primary degree is the master of science (M.S.) in urban and regional planning (URPL). This program normally requires two academic years of full-time work plus an internship. In addition to the M.S. program, the department offers a Ph.D. program. Some double-degree master's programs are offered, and provisions have been made, in all of the department's basic programs, to serve the specific needs of students from developing countries. The master's degree in urban and regional planning is intended primarily to prepare graduates for professional positions in government, nonprofit and community organizations and the private sector. We seek to train students with the knowledge, theories, skills and abilities to be leaders in shaping communities.

Master's degree coursework consists of 45 credits distributed among core planning skills and knowledge, an area of specialization, and elective courses. Students also gain practical experience in planning and problem solving through required internships.

The objectives of the professional masters of science degree are to:

1. Prepare students to engage in planning processes that recognize a complex, pluralistic democratic society. Students develop the capacity to work with diverse publics, across government agencies, and in private and nonprofit sectors. Planning processes include the identification of objectives, design of possible courses of action, and evaluation of alternatives.
2. Convey a set of planning literacies to enable students to perform effectively as planners in public, private or nonprofit sectors. These literacies include knowledge in the following areas:
 - Structure and function of cities and regions
 - History and theory of planning processes and practices
 - Administrative, legal and political aspects of plan-making
 - Public involvement and dispute resolution techniques
 - Research design and data analysis techniques
 - Written, oral and graphic communication skills
 - Ethics of professional practice
 - Collaborative approaches to problem solving
3. Prepare students with the substantive knowledge foundation and tools, methods and techniques of planning associated with an area of specialization.

Details on administrative requirements for the degree are available in the department's *Policies and Procedures*, available on the department website or by request.

The M.S. program equips students with sufficient understanding of and training in the principal tools, methods, and techniques of planning to enable them to perform effectively as junior members of planning staffs from the start of their careers; in addition, UW-Madison's program in

planning emphasizes concepts, perspectives, and practices that promise to be useful not only upon graduation, but even more so in later years for graduates who reach positions of major influence and responsibility.

Although the department stresses the development of general skills and mental attitudes that are common to all planning endeavors, students are required to specialize in an area of planning that is of interest to the student.

The department seeks students with high academic qualifications and the potential to become qualified professional planners. The department is especially interested in women and minority applicants. Since there are relatively few undergraduate planning programs in the country, students come into the field from a wide range of disciplines. In recent years, planning students have generally come from the social sciences, with geography, economics, political science, and sociology the most common undergraduate backgrounds. The range, however, runs from the arts to the sciences.

ADMISSIONS

Application for admission to the department consists of the following materials: the online application, official transcripts of all undergraduate and graduate work, statement of purpose (applicants should submit a thoughtful, reflective one- or two-page statement discussing reasons for going into planning; applicants with an interest in a particular concentration should discuss this; applicants with planning or planning-related experience should include this), and three references from people familiar with the applicant's academic and/or professional work. The Graduate Record Exam (GRE) is required for M.S. admission and Ph.D. admission.

Besides the general requirements for admission to the M.S. program, there are two additional requirements unique to the Ph.D. program. First, applicants to the Ph.D. program are expected to have a master's degree in planning or a related field. Second, because planning is a practice-oriented field, applicants are expected to have completed at least one year of full-time experience as a professional planner. The Ph.D. program is flexible and is intended to appeal to individuals from diverse academic backgrounds. Therefore, it is possible to be admitted without having met the professional practice requirements. Deficiencies may be made up once a student is in the program.

A student must have an URPL academic sponsor in order to be admitted into the Ph.D. program. Before final admission decisions are made, student applications are circulated among the faculty. Only when a faculty member agrees to serve as an academic sponsor for an admissible candidate is a final admission decision made. The sponsor is the student's academic advisor, and it is expected that the sponsor will become the chair of the student's Ph.D. committee.

In reviewing applications, the department gives extra weight to planning-related work, such as Peace Corps or professional planning experience. The department also considers graduate coursework, even if it is in another field. If students have such experience, it should be stressed in the application.

The success of international students enrolled in the program depends heavily on a good working knowledge of English. Prospective applicants who do not feel comfortable using the English language are strongly urged to consider further language study before applying for admission.

All applicants are required to have an introductory-level course in statistics. This requirement may be met by taking an introductory course, for no graduate credit, during the student's first semester of study.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement	45 credits
Minimum Residence Credit Requirement	16 credits
Minimum Graduate Coursework Requirement	Half of degree coursework (23 credits out of 45 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (https://registrar.wisc.edu/course-guide/).
Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	In addition to Graduate School requirements, the Department of Urban and Regional Planning requires that all core courses and all courses in a student's area of specialization (other than research credits) be taken on a graded (i.e., not satisfactory/unsatisfactory basis.)

In all core courses and all courses in a student's area of specialization, a minimum grade of BC is considered satisfactory. Grades of C or below in core and specialization courses may not be counted toward degree requirements, but are still counted in the cumulative GPA. If a student receives a grade of C or below in a department required core course, the student must retake the course and achieve a satisfactory grade.

In elective courses, a grade of C or above is considered satisfactory.

Any course in which a student receives a grade of D or F may not be used to satisfy any department graduation requirements. However, these courses will still be counted in the cumulative GPA.

Assessments and Examinations	To obtain a master of science degree in urban and regional planning, a student must be able to demonstrate a high level of competency in the theories, methods, applications, and ethics of planning. Students must demonstrate competency over the broad field of planning in general, as well as within an area of specialization as defined by the student, in consultation with a faculty advisor. For information on competency requirement options, including details regarding a master's thesis or a professional project, see the program's handbook.
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Language Requirements	Prospective students whose native language is not English must also provide evidence of English language proficiency. A TOEFL score of 600 (paper-based) or above typically indicates an ability to successfully meet the written and spoken communication requirements of graduate level courses.
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REQUIRED COURSES

Code	Title	Credits
Planning Core		
URB R PL 741	Introduction to Planning	3

URB R PL/ SOC WORK 721	Methods of Planning Analysis	3
URB R PL 781	Planning Thought and Practice	3
URB R PL 833	Planning and the Legal System	3
URB R PL 590	Contemporary Topics in Urban and Regional Planning (Topic: Pre-Workshop Module)	1
URB R PL 912	Planning Workshop	3
Select one of the following:		3
URB R PL 601	Site Planning	
URB R PL 611	Urban Design: Theory and Practice	
URB R PL 731	Introduction to Regional Planning	
URB R PL/ECON/ PUB AFFR 734	Regional Economic Problem Analysis	
URB R PL 751	Introduction to Financial Planning	
URB R PL 761	Central City Planning: Issues and Approaches	
URB R PL/ CIV ENGR 839	Land Use and Communication Systems Planning	
URB R PL 841	Urban Functions, Spatial Organization and Environmental Form	
URB R PL 844	Housing and Public Policy	
Planning Concentration		12
Electives		14
Professional Practice Internship		
Total Credits		45

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://dpla.wisc.edu/academics/handbooks>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

A maximum of 21 credits are allowed from Planning Accreditation Board–accredited coursework taken at other institutions. In all other fields, 25% of credits completed up to a maximum of 11 transfer credits are allowed. Special conditions for applying prior coursework may be found in the program's Policies and Procedures (<https://urpl.wisc.edu/academics/policies>).

UW–Madison Undergraduate

Any course taken as part of an undergraduate degree (whether required or optional) may not be applied.

UW–Madison University Special

The Master's Program Committee (MPC) will not accept a more than 12 credits of prior coursework taken as a UW–Madison University Special student. The MPC does not necessarily guarantee that all credits (up to 12) taken as a Special student may be applied. All courses accepted for must have a B or better. The decision as to what prior coursework may be applied will be made by the MPC on the recommendation of the student's advisor, and must be based on information indicating that the courses for which credit is given fit logically into the student's overall program.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status). To the extent possible, students admitted on probation are encouraged to take core courses as a part of their first semester schedule. In all other matters, students admitted on probation are subject to the same standards and requirements as students admitted in full standing (e.g. residency requirements, satisfactory student performance, minimum grades in core courses [BC], and so forth).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

ADVISOR / COMMITTEE

Student should meet regularly with the advisor to plan academic career. The advisor is required to approve and sign the plan of study form, which is then submitted to the graduate coordinator prior to the student being allowed to graduate.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

The master's program takes two full years of study.

OTHER

Financial support is not guaranteed for the M.S. or Ph.D. program, but Urban and Regional Planning works with students to identify funding options.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. (General Planning Knowledge) Comprehension, representation, and use of ideas and information in the planning field, including appropriate perspectives from history, social science, and the design professions.
2. (Purpose and Meaning of Planning) Appreciation of why planning is undertaken by communities, cities, regions, and nations, and the impact planning is expected to have.
3. (Planning Theory) Appreciation of the behaviors and structures available to bring about sound planning outcomes.
4. (Planning Law) Appreciation of the legal and institutional contexts within which planning occurs.
5. (Human Settlements and History of Planning) Understanding of the growth and development of places over time and across space.
6. (The Future) Understanding of the relationships between past, present, and future in planning domains, as well as the potential for methods of design, analysis, and intervention to influence the future.
7. (Global Dimensions of Planning) Appreciation of interactions, flows of people and materials, cultures, and differing approaches to planning across world regions.
8. (Planning Skills) Use and application of knowledge to perform specific tasks required in the practice of planning.
9. (Research) Tools for assembling and analyzing ideas and information from prior practice and scholarship, and from primary and secondary sources.
10. (Written, Oral, and Graphic Communication) Ability to prepare clear, accurate and compelling text, graphics and maps for use in documents and presentations.
11. (Quantitative and Qualitative Methods) Data collection, analysis and modeling tools for forecasting, policy analysis, and design of projects and plans.
12. (Plan Creation and Implementation) Integrative tools useful for sound plan formulation, adoption, and implementation and enforcement.
13. (Planning Process Methods) Tools for stakeholder involvement, community engagement, and working with diverse communities.
14. (Leadership) Tools for attention, formation, strategic decision-making, team building, and organizational/community motivation.
15. (Values and Ethics) Values inform ethical and normative principles used to guide planning in a democratic society. The program shall appropriately incorporate issues of diversity and social justice into all required courses of the curriculum, including:

16. (Professional Ethics and Responsibility) Appreciation of key issues of planning ethics and related questions of the ethics of public decision-making, research, and client representation (including principles of the AICP Code of Ethics and other related principles, as appropriate).

17. (Governance and Participation) Appreciation of the roles of officials, stakeholders, and community members in planned change.

18. (Sustainability and Environmental Quality) Appreciation of natural resource and pollution control factors in planning, and understanding of how to create sustainable futures.

19. (Growth and Development) Appreciation of economic, social, and cultural factors in urban and regional growth and change.

20. (Values and Ethics) Values inform ethical and normative principles used to guide planning in a democratic society. The program shall appropriately incorporate issues of diversity and social justice into all required courses of the curriculum, including:

21. (Professional Ethics and Responsibility) Appreciation of key issues of planning ethics and related questions of the ethics of public decision-making, research, and client representation (including principles of the AICP Code of Ethics and other related principles, as appropriate).

22. (Governance and Participation) Appreciation of the roles of officials, stakeholders, and community members in planned change.

23. (Sustainability and Environmental Quality) Appreciation of natural resource and pollution control factors in planning, and understanding of how to create sustainable futures.

24. (Growth and Development) Appreciation of economic, social, and cultural factors in urban and regional growth and change.

PEOPLE

Faculty: Professors Jacobs, LaGro, Marcouiller, Ohm; Associate Professors Genskow (chair), Morales, Paulsen; Assistant Professor Gocmen

dpla.wisc.edu/facstaff/faculty (<https://dpla.wisc.edu/facstaff/faculty>)

ACCREDITATION

ACCREDITATION

Planning Accreditation Board (<http://www.planningaccreditationboard.org>)

Accreditation status: Accredited. Next accreditation review: 2019–2020.

CERTIFICATION/LICENSURE

American Institute of Certified Planners (AICP) (<https://www.planning.org/certification>)

URBAN AND REGIONAL PLANNING, PH.D.

The Ph.D. is open to a limited number of quality students who intend to teach, or do research in a university, in an independent research agency, or in large planning organizations.

Generally, students spend two years of full-time coursework before being advanced to candidacy, and an additional one to two years in preparation and defense of a dissertation. Details on administrative requirements for the degree are available in the department's *Policies and Procedures*, available on the department website or by request.

Although the department stresses the development of general skills and mental attitudes that are common to all planning endeavors, students are required to specialize in an area of planning that is of interest to the student.

The department seeks students with high academic qualifications and the potential to become qualified professional planners. The department is especially interested in women and minority applicants. Since there are relatively few undergraduate planning programs in the country, students come into the field from a wide range of disciplines. In recent years, planning students have generally come from the social sciences, with geography, economics, political science, and sociology the most common undergraduate backgrounds. The range, however, runs from the arts to the sciences.

ADMISSIONS

Application for admission to the department consists of the following materials: the online application, official transcripts of all undergraduate and graduate work, statement of purpose (applicants should submit a thoughtful, reflective one- or two-page statement discussing reasons for going into planning; applicants with an interest in a particular concentration should discuss this; applicants with planning or planning-related experience should include this), and three references from people familiar with the applicant's academic and/or professional work. The Graduate Record Exam (GRE) is required for M.S. admission and Ph.D. admission.

Besides the general requirements for admission to the M.S. program, there are two additional requirements unique to the Ph.D. program. First, applicants to the Ph.D. program are expected to have a master's degree in planning or a related field. Second, because planning is a practice-oriented field, applicants are expected to have completed at least one year of full-time experience as a professional planner. The Ph.D. program is flexible and is intended to appeal to individuals from diverse academic backgrounds. Therefore, it is possible to be admitted without having met the professional practice requirements. Deficiencies may be made up once a student is in the program.

A student must have an URPL academic sponsor in order to be admitted into the Ph.D. program. Before final admission decisions are made, student applications are circulated among the faculty. Only when a faculty member agrees to serve as an academic sponsor for an admissible candidate is a final admission decision made. The sponsor is the student's academic advisor, and it is expected that the sponsor will become the chair of the student's Ph.D. committee.

In reviewing applications, the department gives extra weight to planning-related work, such as Peace Corps or professional planning experience. The department also considers graduate coursework, even if it is in another field. If students have such experience, it should be stressed in the application.

The success of international students enrolled in the program depends heavily on a good working knowledge of English. Prospective applicants who do not feel comfortable using the English language are strongly urged to consider further language study before applying for admission.

All applicants are required to have an introductory-level course in statistics. This requirement may be met by taking an introductory course, for no graduate credit, during the student's first semester of study.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 51 credits

Minimum Residence Credit Requirement 32 credits

Minimum Graduate Coursework Requirement Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The minimum average GPA in courses satisfying the Structure and Processes of Cities and Regions requirement shall be 3.5. If a student does not achieve this GPA in the three courses s/he identifies, they may continue to take courses (within the general departmental Ph.D. program policies of how long a student may be a pre-dissertator) from the list provided until they have three courses where their average GPA is 3.5.

Assessments and Examinations The department administers three preliminary field examinations. The purpose of the preliminary examinations is to satisfy the department that the student is knowledgeable about the central theoretical and methodological perspectives common to the field of planning, and has sufficient knowledge about the design and conduct of research to undertake the dissertation.

Language Requirements Prospective students whose native language is not English must also provide evidence of English language proficiency. A TOEFL score of 600 (paper-based) or above typically indicates an ability to successfully meet the written and spoken communication requirements of graduate level courses, the department's preliminary examinations, and the dissertation.

Doctoral Minor/Breadth Requirements All doctoral students are required to complete a minor. Option A requires a minimum of 10 credits in a single department/major field of study. Selection of this option requires the approval of the minor department under the guidelines of that department and on forms developed for that purpose by the selected department. Option B requires a minimum of 10 credits in one or more departments and can include coursework in URPL. Selection of this option requires the approval of the department's Ph.D. program committee. Forms for the filing of Option B minors are available from the Ph.D. program committee.

Ph.D. students and their advisers are responsible for filing copies of executed minor agreements with the Ph.D. program committee. The minor field requirement must be satisfied prior to filing the warrant for the preliminary examination.

REQUIRED COURSES

All doctoral students are required to complete three courses (9 credits) on the structure and processes of cities and regions. These courses shall cover the nature of urban and regional development processes over time and the impact of urban and regional development on the social, economic, environmental, institutional, and physical structure of cities and regions. They should also cover the response of federal, state and local governments to the issues and problems generated by such development and the planner's role in developing public policy and programs to deal with those problems and issues.

Courses satisfying the requirement for this component of doctoral studies must be approved by the student's Ph.D. advisor and then by the Ph.D. program committee, and shall be recorded on a form provided by the committee.

Coursework Satisfying Requirement for Structure and Processes of Cities and Regions

Code	Title	Credits
ECON 475	Economics of Growth	3-4
ECON/REAL EST/ URB R PL 641	Housing Economics and Policy	3
ECON 712	Economic Theory-Macroeconomics Sequence	3
ECON/REAL EST/ URB R PL 420	Urban and Regional Economics	3
GEOG/URB R PL 505	Urban Spatial Patterns and Theories	3
I SY E 516	Introduction to Decision Analysis	3
PUB AFFR 873	Introduction to Policy Analysis	3
PUB AFFR/POLI SCI/ URB R PL 874	Policy-Making Process	3
REAL EST/ URB R PL 720	Urban Economics	3
REAL EST/ URB R PL 978	Seminar-Urban Land Economics PhD	2
SOC/C&E SOC 655	Microfoundations of Economic Sociology	3
SOC/C&E SOC 748	Environmental Sociology	3
SOC/C&E SOC 972	Seminar in Population and Development	3

SOC/C&E SOC 676	Applied Demography: Planning and Policy	3
URB R PL/ECON/ PUB AFFR 734	Regional Economic Problem Analysis	3
URB R PL 751	Introduction to Financial Planning	3
ZOOLOGY/ F&W ECOL/ LAND ARC 565	Principles of Landscape Ecology	2

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://dpla.wisc.edu/academics/handbooks>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

Requests for prior coursework to be applied to credit requirements should be submitted to the Ph.D. Committee for evaluation. The committee may approve up to a maximum of 18 credits of prior coursework toward program requirements. No graduate work taken at other institutions counts toward the Graduate School minimum graduate credit requirement.

UW-Madison Undergraduate

No credits from any undergraduate degree may be applied toward the Ph.D. program.

UW-Madison University Special

A maximum of 15 credits may be applied from the UW-Madison University Special career; requests for prior coursework to be applied to credit requirements should be submitted to the Ph.D. committee for evaluation.

PROBATION

A semester GPA below 3.0 will result in the student being placed on academic probation. If a semester GPA of 3.0 is not attained during the subsequent semester of full time enrollment (or 12 credits of enrollment if enrolled part-time) the student may be dismissed from the program or allowed to continue for 1 additional semester based on advisor appeal to the Graduate School.

ADVISOR / COMMITTEE

All students are required to conduct a yearly progress report meeting with their thesis committee after passing the preliminary examination.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

All courses for the Structure and Processes of Cities and Regions requirement must be taken and successfully completed within the doctoral student's first five semesters (i.e., two and one-half academic years) in the Ph.D. program. This coursework requirement must be met before the student is advanced to candidacy (awarded dissertator, ABD status).

OTHER

Financial support is not guaranteed for the M.S. or Ph.D. program, but Urban and Regional Planning works with students to identify funding options.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Acquire and demonstrate knowledge about the professional field of planning, as exemplified in the accreditation guidelines for the master's program in urban and regional planning and the Planning Accreditation Board. These include knowledge about: the purpose and meaning of planning, planning history, planning theory, planning law, the structure and function of cities and regions, and global dimensions of planning. Students demonstrate this knowledge through entrance requirements (a master's degree in planning or acceptable cognate field), through completion of coursework, and through completion of preliminary examinations in planning theory, planning methods, and planning specialization.
2. Acquire and demonstrate knowledge about the role and use of planning theories in both practice and research, including the historical development of planning theory, major theoretical approaches within planning, and the application of theories from other disciplines as applied to planning. Students demonstrate this knowledge through coursework and completion of a planning theory preliminary examination.
3. Acquire and demonstrate knowledge of social science research methods, including research design, data collection, and quantitative and qualitative methods used in planning research. Students demonstrate knowledge through completion of graduate coursework in research methods and through completion of a research design and methods preliminary examination.
4. Acquire and demonstrate knowledge of a substantive research and practice field within planning. Students demonstrate specialized knowledge in one of the major fields within planning through completion of coursework and through a research-specialization preliminary examination.
5. Acquire and demonstrate skills in conducting academic research and scholarly inquiry in the field of urban and regional planning, including ability to summarize and critique extant research, ability to develop

a research proposal, skills in seeking funding, skills in completion of research projects, and skills in written and oral presentation of research findings.

6. Acquire and demonstrate specialized skills in research for their chosen major field within planning. This will include skills in particular research methods and data analysis specific to their chosen field within planning.
7. Acquire and demonstrate general knowledge about planning suitable to teaching master's-level planning students in accredited programs. Students will acquire and demonstrate specific knowledge about their chosen field of specialization within planning.
8. Acquire and/or demonstrate competence and experience in the professional practice of planning. Students demonstrate this skill through the requirement of previous professional work experience within the field of planning.
9. Acquire and demonstrate knowledge of planning values and planning ethics, as exemplified in the accreditation guidelines for the master's program in urban and regional planning and the Planning Accreditation Board. This would also include awareness of rules of ethical professional conduct as exemplified in the Code of Ethics of the American Institute of Certified Planners.
10. Demonstrate and be held to the highest standards of academic citation and attribution in all their coursework and published work.
11. Demonstrate understanding of professional conduct through required professional work experience in planning.
12. Be given opportunities for training and experience in classroom teaching, presentation of research at academic conferences, and development of research proposals for funding agencies.
13. Demonstrate ethics and values consistent with the "Wisconsin brand" of urban and regional planning, which includes participation, transparency in governance, environmental protection and social justice.

PEOPLE

Faculty: Professors Jacobs, LaGro, Marcouiller, Ohm; Associate Professors Genskow (chair), Morales, Paulsen; Assistant Professor Gocmen

<https://dpla.wisc.edu/facstaff/faculty>

PLANT PATHOLOGY

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Plant Pathology, Doctoral Minor (p. 1168)
- Plant Pathology, M.S. (p. 1169)
- Plant Pathology, Ph.D. (p. 1172)

PEOPLE

PROFESSORS

Ahlquist, Paul
 Allen, Caitilyn
 Bent, Andrew
 Handelsman, Jo
 MacGuidwin, Ann
 McManus, Patricia (chair)
 Rouse, Douglas

ASSOCIATE PROFESSORS

Barak-Cunningham, Jeri
 Gevens, Amanda

ASSISTANT PROFESSORS

Kabbage, Mehdi
 Koch, Paul
 Lankau, Richard
 Rakotondrafara, Aurelie
 Silva, Erin
 Smith, Damon

AFFILIATED FACULTY

Ane, Jean-Michel (Bacteriology)
 Groves, Russell (Entomology)
 Havey, Michael (Horticulture)
 Keller, Nancy (Medical Microbiology & Immunology)
 Pringle, Ann (Botany)
 Whitman, Thea (Soil Science)
 Yu, Jae-Hyuk (Bacteriology)

FACULTY ASSOCIATE

Hudelson, Brian

PLANT PATHOLOGY, DOCTORAL MINOR

ADMISSIONS

Please see the Department of Plant Pathology's Handbook and Forms page (<http://plantpath.wisc.edu/graduate-handbook>) for additional information including a form to fill out for the Plant Pathology minor.

REQUIREMENTS

Doctoral candidates in other majors seeking a doctoral minor in plant pathology must complete a minimum of 9 graduate-level course credits in plant pathology (a minimum of 8 at UW–Madison) including PL PATH 300 Introduction to Plant Pathology and no more than 2 credits of independent study or PL PATH 923 Seminar, while enrolled in a graduate program, and have a plant pathology faculty member serve as the minor professor on their research committees (oral preliminary exam committee and final exam committee).

Additional information can be found on the department's handbooks and forms webpage (<http://plantpath.wisc.edu/graduate-handbook>).

PROFESSIONAL DEVELOPMENT

Students in the Department of Plant Pathology are strongly encouraged to participate in events through the Plant Pathology Graduate Colloquium (<http://labs.russell.wisc.edu/ppgc>).

PEOPLE

PROFESSORS

Ahlquist, Paul
 Allen, Caitilyn
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 Yu, Jae-Hyuk (Bacteriology)

FACULTY ASSOCIATE

Hudelson, Brian

PLANT PATHOLOGY, M.S.

The discipline of plant pathology is directed toward understanding and solving disease problems of plants. The field is broad and complex, integrating disciplines as varied as molecular biology, genetics, cell biology, organismal biology, population and community ecology, meteorology, statistics, computer science, chemistry, and physics. Plant pathology encompasses basic and applied research, employs both model systems and economically important plants, and requires both laboratory and field experimentation. Active research programs in the department encompass this full spectrum of questions and approaches, including research on virology, nematology, fungal genetics, tissue culture, soil microbiology and ecology, forest pathology, bacterial plant pathogens,

molecular biology of parasite–host interactions, microbial ecology, epidemiology, and integrated disease management strategies.

The graduate program in plant pathology educates students in the science of plant pathology and prepares them for successful careers. Students develop the following skills required to meet diverse professional situations: excellence in research; breadth and depth in plant pathology; breadth in an allied field; strong critical and analytical thinking skills; and effective communication skills. Students become sufficiently knowledgeable in all aspects of plant pathology to identify key research questions, recognize significant discoveries, and think analytically about interpretation of data.

The level of proficiency in specific areas will vary with the student's research area and career goals, and will be appropriate to the student's degree program (M.S. or Ph.D.). Specific areas of proficiency addressed by the Ph.D. curriculum include etiology, diagnosis, and management of plant disease; ecology and epidemiology; genetics and physiology of plant–microbe interactions; and organismal biology. Ph.D. students may elect an optional professional development experience as part of their curriculum. Graduates of the program attain positions in teaching, research in academic positions, government services, industry, extension services, and private practice.

The program is comprised of about 100 faculty members, graduate students, and research and support staff. It is housed in an eight-story wing of Russell Laboratories, a teaching and research facility on the UW–Madison campus, which is surrounded by other facilities that are also devoted to biological research. Russell Labs, together with the extensive research facilities available on the rest of the UW–Madison campus and at field research stations throughout Wisconsin, provide a rich and comprehensive environment for research and graduate studies in all branches of plant pathology.

ADMISSIONS

Students who are admitted to the department must meet the Graduate School requirements, including completion of a bachelor's degree which typically consists of courses in biology, chemistry, mathematics, and physics. Successful applicants typically exceed the minimum requirement of a 3.0 GPA (on a 4.0 scale); exceed the minimum required Test of English as a Foreign Language (TOEFL) score of 92, or a 7 on the International English Language Testing System (IELTS) exam (international applicants); perform well on the Graduate Record Exam (GRE); and articulate a strong interest in the discipline in their application. Prior research experience is an asset for any applicant, and letters of recommendation from research advisors are viewed as one of the most useful means of evaluating applications.

The application deadline for the fall semester is the preceding January 2. Applications received after that date will be reviewed, but they are disadvantaged for admission and financial support.

Additional information can be found on the department's application process webpage (<http://plantpath.wisc.edu/graduate-apply>).

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have

researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

The department offers stipends to the most highly qualified applicants, and students are funded throughout their programs by research assistantships, fellowships, or traineeships. The department nominates outstanding students for external fellowships and supports and assists students who apply for scholarships and other forms of financial support.

Additional information regarding funding can be found on the department's funding information webpage (<http://plantpath.wisc.edu/graduate-funding>).

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Language Requirements Contact the program for information on any language requirements.

REQUIRED COURSES

Student must complete at least 9 credits of plant pathology, including PL PATH 300 Introduction to Plant Pathology (or equivalent), at least 1 credit of PL PATH 875 Special Topics, and only 1 credit of PL PATH 923 Seminar. The remaining 21 credits may include any other course work taken as a graduate student at UW–Madison numbered 300-level or above and taken for credit. Additionally, up to 15 credits of PL PATH 990 Research may count for these remaining credits.

Additional information regarding program-specific courses can be found on the department's handbook and forms webpage (<http://plantpath.wisc.edu/graduate-handbook>).

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<http://plantpath.wisc.edu/graduate-handbook>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With M.S. committee approval and Academic Affairs Committee approval, students are allowed to count no more than 14 credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

Students may count up to 7 credits of coursework numbered 300 level or above upon approval of the M.S. committee and the Academic Affairs Committee. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison University Special

With M.S. committee approval and Academic Affairs Committee approval, students are allowed to count no more than 15 credits of coursework numbered 300 or above taken as a UW–Madison special student. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements;

that coursework may not count toward Graduate School credit requirements.

OTHER

Applications to graduate studies act as the application for financial support. Offers of financial support accompany most offers of admission for students admitted to Plant Pathology. Most students hold research assistantships (RAs). The availability of RAs is limited.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PROGRAM RESOURCES

Students in the Department of Plant Pathology are strongly encouraged to participate in events through the Plant Pathology Graduate Colloquium (<http://labs.russell.wisc.edu/ppgc>).

LEARNING OUTCOMES

1. Demonstrate an understanding of the basic biology of microorganisms that are symbiotic with plants including fungi, bacteria, viruses, oomycetes, and nematodes.
2. Demonstrate a basic understanding of: a. the basic processes of pathogenesis, plant defense, and defense circumvention at the molecular, genetic and physiological level for each of the major groups of plant pathogens and other plant associated microorganisms. b. the etiology, ecology, and epidemiology of economically significant diseases caused by the major groups of plant pathogens and be able to apply the understanding from a. and/or b. above in research.
3. Conduct project related to the discipline of Plant Pathology that requires specifying a problem, designing and conducting experiments, analyzing the resulting data, and reporting results/solutions.
4. Convey scientific knowledge to fellow scientists in a variety of formats.

PEOPLE

PROFESSORS

Ahlquist, Paul
 Allen, Caitilyn
 Bent, Andrew
 Handelsman, Jo
 MacGuidwin, Ann
 McManus, Patricia (chair)
 Rouse, Douglas

ASSOCIATE PROFESSORS

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FACULTY ASSOCIATE

Hudelson, Brian

PLANT PATHOLOGY, PH.D.

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and at field research stations throughout Wisconsin, provide a rich and comprehensive environment for research and graduate studies in all branches of plant pathology.

ADMISSIONS

Students who are admitted to the department must meet the Graduate School requirements, including completion of a bachelor's degree which typically consists of courses in biology, chemistry, math and physics. If foundation course requirements have not been fulfilled before matriculation, they must be completed as early as possible in the course of study. Successful applicants typically exceed the minimum requirement of a 3.0 GPA (on a 4.0 scale); exceed the minimum required Test of English as a Foreign Language (iTOEFL) score of 92, or a 7 on the International English Language Testing System (IELTS) exam (international applicants); perform well on the Graduate Record Exam (GRE); and articulate a strong interest in the discipline in their application. Prior research experience is an asset for any applicant, and letters of recommendation from research advisors are viewed as one of the most useful means of evaluating applications.

The application deadline for the fall semester is the preceding January 2. Applications received after that date will be reviewed, but they are disadvantaged for admission and financial support.

Additional information can be found on the department's application process webpage (<http://plantpath.wisc.edu/graduate-apply>).

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

The department offers stipends to the most highly qualified applicants, and students are funded throughout their programs by research assistantships, fellowships, or traineeships. The department nominates outstanding students for external fellowships and supports and assists students who apply for scholarships and other forms of financial support.

Additional information regarding funding can be found on the department's funding information webpage (<http://plantpath.wisc.edu/graduate-funding>).

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 51 credits

Minimum Residence Credit Requirement 32 credits

Minimum Graduate Coursework Requirement Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Students in the Plant Pathology Ph.D. must complete certification paperwork to outline their coursework, pass a departmental written qualifying exam, pass an oral preliminary examination, and prepare, publicly present, and defend a dissertation.

Language Requirements Contact the program for information on any language requirements.

Doctoral Minor/Breadth Requirements All doctoral students are required to complete a minor.

REQUIRED COURSES

Students must complete the foundation requirements, the expectation is that a majority of these are met through undergraduate coursework. These courses include three of four from Genetics, Plant Anatomy/Morphology, Plant Physiology, and General Ecology; 2 semesters of General Chemistry, Organic Chemistry (including a lab), and Biochemistry; two semester of General Physics (including electricity and light); and Introductory Calculus and Statistics.

Major requirements include, the remaining credits to fulfill the credit minimum are electives in consultation with the student's advisor and committee.

Code	Title	Credits
PL PATH 300	Introduction to Plant Pathology	4
PL PATH/BOTANY/ ENTOM 505	Plant-Microbe Interactions: Molecular and Ecological Aspects	3
PL PATH 559	Diseases of Economic Plants	3
PL PATH 602	Ecology, Epidemiology and Control of Plant Diseases	3
PL PATH 799	Practicum in Plant Pathology Teaching	2
PL PATH 875	Special Topics	2
	2 instances of PL PATH 875	
PL PATH 923	Seminar	2
	2 instances of PL PATH 923	

Additional information regarding program-specific courses can be found on the department's handbook and forms webpage (<http://plantpath.wisc.edu/graduate-handbook>).

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<http://plantpath.wisc.edu/graduate-handbook>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

For well-prepared advanced students, the program may accept prior graduate coursework from other institutions toward the minimum graduate degree credit and minimum graduate coursework (50%) requirement. The minimum graduate residence credit requirement can be satisfied only with courses taken as a graduate student at UW–Madison. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

For well-prepared advanced students, the program may decide to accept up to 7 credits numbered 300 or above completed at UW–Madison toward fulfillment of minimum degree and minor credit requirements. This work would not be allowed to count toward the 50% graduate coursework minimum unless taken at the 700 level or above. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison University Special

The program may decide to accept up to 15 University Special student credits as fulfillment of the minimum graduate residence, graduate degree, or minor credit requirements on occasion as an exception (on a case-by-case basis). UW–Madison coursework taken as a University Special student would not be allowed to count toward the 50% graduate coursework minimum unless taken at the 700 level or above. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies. An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor.

To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

OTHER

Applications to graduate studies act as the application for financial support. Offers of financial support accompany most offers of admission for students admitted to Plant Pathology. Most students hold research assistantships (RAs). The availability of RAs is limited.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PROGRAM RESOURCES

Students in the Department of Plant Pathology are strongly encouraged to participate in events through the Plant Pathology Graduate Colloquium (<http://labs.russell.wisc.edu/ppgc>).

LEARNING OUTCOMES

1. Demonstrate an understanding of the basic processes of pathogenesis, plant defense, and defense circumvention at the molecular, genetic and physiological level for each of the major groups of plant pathogens and other plant associated microorganisms.
2. Demonstrate an understanding of the basic biology of microorganisms that are symbiotic with plants including fungi, bacteria, viruses, oomycetes, and nematodes.
3. Demonstrate an understanding of the etiology, ecology, and epidemiology of economically significant diseases caused by the major groups of plant pathogens.
4. Construct disease management strategies for the different groups of important plant pathogens.
5. Demonstrate excellent problem solving skills and a deep conceptual understanding of the science of Plant Pathology.
6. Convey knowledge in a variety of formats to diverse audiences including the public, students, and fellow scientists.

PEOPLE

PROFESSORS

Ahlquist, Paul
 Allen, Caitilyn
 Bent, Andrew
 Handelsman, Jo
 MacGuidwin, Ann
 McManus, Patricia (chair)
 Rouse, Douglas

ASSOCIATE PROFESSORS

Barak-Cunningham, Jeri
 Gevens, Amanda

ASSISTANT PROFESSORS

Kabbage, Mehdi
 Koch, Paul
 Lankau, Richard
 Rakotondrafara, Aurelie
 Silva, Erin
 Smith, Damon

AFFILIATED FACULTY

Ane, Jean-Michel (Bacteriology)
 Groves, Russell (Entomology)
 Havey, Michael (Horticulture)
 Keller, Nancy (Medical Microbiology & Immunology)
 Pringle, Ann (Botany)
 Whitman, Thea (Soil Science)
 Yu, Jae-Hyuk (Bacteriology)

FACULTY ASSOCIATE

Hudelson, Brian

POLITICAL SCIENCE

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Political Science, Doctoral Minor (p. 1175)
- Political Science, M.A. (p. 1175)
- Political Science, Ph.D. (p. 1177)

PEOPLE

Faculty: Professors Burden, Canon, Cramer, Gehlbach, Hendley, Herrera, Kydd, Marquez, Martin, Mayer, Owens, Pevehouse, Ringe, Schweber, Straus, Tripp, Weimer, Yackee, Zumbrunnen (chair); Associate Professors Avramenko, Bhavnani, Copelovitch, Kapust, Powell, Renshon, Shelef, Simmons, Weeks; Assistant Professors Lindsay, Schwarze, Takh

POLITICAL SCIENCE, DOCTORAL MINOR

REQUIREMENTS

The Department of Political Science offers an Option A minor. Students are required to complete 9 credits of graduate-level political science coursework resulting in a cohesive theme of study with grades of B or better. The coursework may include courses that have the "Counts toward 50% graduate coursework requirement" attribute, if taken at the graduate level. Students seeking an Option A minor in Political Science should meet with the associate chair following completion of the first course to discuss a proposed course list. The associate chair will approve the minor upon completion of the coursework.

PEOPLE

Faculty: Professors Burden, Canon, Cramer, Gehlbach, Hendley, Herrera, Kydd, Marquez, Martin, Mayer, Owens, Pevehouse, Ringe, Schweber, Straus, Tripp, Weimer, Yackee, Zumbrunnen (chair); Associate Professors Avramenko, Bhavnani, Copelovitch, Kapust, Powell, Renshon, Shelef, Simmons, Weeks; Assistant Professors Lindsay, Schwarze, Takh

POLITICAL SCIENCE, M.A.

The Department of Political Science offers graduate study leading to the doctor of philosophy in political science. The department does not admit for master's degrees, accepting students for the Ph.D. program only. Once admitted to the Ph.D. program, it is possible to obtain a master's degree through work en route to the Ph.D.

The department has a national and international reputation for the high quality of its faculty and for the diversity of their approaches and interests. It has long been known for its acceptance of a broad range of approaches to the study of politics and for its collegiality. The subfields of political science found in the department are American politics (<http://polisci.wisc.edu/fields/american-politics>), comparative politics (<http://polisci.wisc.edu/fields/comparative>), political theory and philosophy (<http://polisci.wisc.edu/fields/political-theory>), international relations (<http://polisci.wisc.edu/fields/ir>), and political methodology (<http://polisci.wisc.edu/fields/political-methodology>). Political science shares faculty with the Robert M. La Follette School of Public Affairs (<http://www.lafollette.wisc.edu>), the Law School (<http://www.law.wisc.edu>), and the Department of Gender and Women's Studies (<http://womenstudies.wisc.edu>). The presence of programs and centers such as the African Studies Program (<http://africa.wisc.edu>), the Center for European Studies (<http://ces.wisc.edu>), the Center for Jewish Studies (<http://jewishstudies.wisc.edu>), the Center for Russia, East Europe, and Central Asia (CREECA) (<http://www.creeca.wisc.edu>), Integrated Liberal Studies (<http://ils.wisc.edu>), the International Studies major (B.A. (<http://guide.wisc.edu/undergraduate/letters-science/institute-regional-international-studies/international-studies-ba>), and B.S. (<http://guide.wisc.edu/undergraduate/letters-science/institute-regional-international-studies/international-studies-bs>)), Latin American, Caribbean and Iberian Studies (<http://www.lacis.wisc.edu>), and others

is also beneficial to graduate students, providing opportunities for the advancement of interdisciplinary approaches in student research.

ADMISSIONS

Students may not apply directly for the master's, and should instead see the admissions information for the Ph.D. (p. 1177) This master's program is offered for work done en route to the Ph.D.

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

The department funding guarantee applies to all students admitted to the Ph.D. program. Support may be in the form of fellowships, teaching assistantships, or as an assistant to a faculty research project.

The department does not admit for a master's degree in political science. Please see admissions information for the Ph.D. (p. 1177)

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum 30 credits

Credit Requirement

Minimum 30 credits

Residence Credit Requirement

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall 3.00 GPA required.

Graduate GPA Requirement

Other Grade Requirements No other grade requirements.

Assessments and Examinations No formal examination required.

Language Requirements No language requirements.

REQUIRED COURSES

Code	Title	Credits
General Structure of the Program		
POLI SCI 800	Political Science as a Discipline and Profession	1
POLI SCI 817	Empirical Methods of Political Inquiry	3
Statistical Methodology Coursework-Graduate Level		3
At least 18 of the 30 credits must be earned in graduate courses in Political Science at the 800 level or above.		18
No more than 3 credits of POLI SCI 999 may count toward the degree.		
Meet the minimum graduate credit requirement.		5
Maintain minimum of B average in coursework.		
Courses taken outside the department must be chosen in consultation with a student's advisor and must be at a level (300 or above) for which graduate credit is available.		
Total Credits		30

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the

degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://polisci.wisc.edu/sites/polisci.wisc.edu/files/Grad%20Guide%202017.pdf>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

No credits from graduate work from other institutions may count toward the degree.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

No credits from a UW–Madison University Special student career may count toward the degree.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

ADVISOR / COMMITTEE

All students are required to meet with their advisor to discuss the first year review.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

The department currently guarantees at least five years of financial support to all students admitted to the doctoral program, assuming they are making satisfactory progress toward their degrees. This funding may be in the form of fellowships, teaching assistantships,

or project assistantships. All appointments receive valuable fringe benefits such as excellent health insurance and tuition remission.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Develop an appreciation of the diverse subfields of political science.
2. Learn to articulate questions of importance to the field that can be answered using the methods of political science.
3. Learn to select and utilize methods of political inquiry appropriate to particular research questions.
4. Learn to constructively critique existing work in political science.
5. Develop an understanding of political science from an historical context.
6. Recognize and apply principles of ethical and professional conduct in research, teaching, and service.

PEOPLE

Faculty: Professors Burden, Canon, Cramer, Gehlbach, Hendley, Herrera, Kydd, Marquez, Martin, Mayer, Owens, Pevehouse, Ringe, Schweber, Straus, Tripp, Weimer, Yackee, Zumbrunnen (chair); Associate Professors Avramenko, Bhavnani, Copelovitch, Kapust, Powell, Renshon, Shelef, Simmons, Weeks; Assistant Professors Lindsay, Schwarze, Tahk

POLITICAL SCIENCE, PH.D.

The Department of Political Science offers graduate study leading to the doctor of philosophy in political science. The department admits students only for the Ph.D. program, but a master's degree may be obtained en route to the Ph.D.

The Ph.D. is earned through a combination of coursework and dissertation. The program is designed to provide students with both a general training in political science and the opportunity to specialize in their areas of interest.

The subfields of political science found in the department are American politics (<http://polisci.wisc.edu/fields/american-politics>), comparative politics (<http://polisci.wisc.edu/fields/comparative>), political theory and philosophy (<http://polisci.wisc.edu/fields/political-theory>), international relations (<http://polisci.wisc.edu/fields/ir>), and political methodology (<http://polisci.wisc.edu/fields/political-methodology>). The department has a national and international reputation for the high quality of its faculty and the diversity of their approaches and interests. It has long been recognized for an acceptance of varied approaches to the study of politics and for its collegiality. Political science shares faculty with the Robert M. La Follette School of Public Affairs (<http://www.lafollette.wisc.edu>), the Law School (<http://>

www.law.wisc.edu), and the Department of Gender and Women's Studies (<http://womenstudies.wisc.edu>). The presence of programs and centers such as the African Studies Program (<http://africa.wisc.edu>), the Center for European Studies (<http://ces.wisc.edu>), the Center for Jewish Studies (<http://jewishstudies.wisc.edu>), the Center for Russia, East Europe, and Central Asia (CREECA) (<http://www.creeca.wisc.edu>), Integrated Liberal Studies (<http://ils.wisc.edu>), the International Studies major (B.A. (<http://guide.wisc.edu/undergraduate/letters-science/institute-regional-international-studies/international-studies-ba>), and B.S. (<http://guide.wisc.edu/undergraduate/letters-science/institute-regional-international-studies/international-studies-bs>)), Latin American, Caribbean and Iberian Studies (<http://www.lacis.wisc.edu>), and others is also beneficial to graduate students, providing opportunities for the advancement of interdisciplinary approaches in student research.

ADMISSIONS

Applicants to the Political Science Ph.D. program must apply online (<https://grad.wisc.edu/apply>) by December 15 for admission the following fall. The online application requires you to complete the Graduate School application, Political Science supplemental application, and provide the names and email addresses of three references who can attest to your success as a graduate student. In addition, you must also upload a statement of reasons for graduate study that is two pages in length, a resume or C.V., scanned official transcripts, and one research paper with an abstract.

GRE scores are required. Applicants from outside the United States may also need to submit TOEFL scores. International applicants whose first language is not English will be admitted only if they have Test of English as a Foreign Language (TOEFL) of 100 or more (Internet-based).

It is the candidate's responsibility to ensure that all materials are delivered on time.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

The department guarantees funding for all Ph.D. students making satisfactory progress for at least their first five years. Support may be in the form of fellowships, teaching assistantships, or as an assistant for a faculty research project.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 51 credits

Minimum Residence Credit Requirement 51 credits

Minimum Graduate Coursework Requirement Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements No other grade requirements.

Assessments and Examinations Doctoral students must complete written exams in two subfields before the end of the sixth semester. A dissertation proposal must be defended prior to the start of the seventh semester in the program.

Language Requirements No language requirements.

Doctoral Minor/Breadth Requirements All doctoral students are required to complete a minor.

Students are expected to consult with their advisors concerning minor/breadth requirements. At the time the student requests the preliminary exam warrant, a summary should be prepared of the effort in interdisciplinary coursework and training.

All Option B minors require the approval of the student's advisor and the associate chair.

With program approval, students may be allowed to count 9 credits of graduate coursework from other institutions toward fulfillment of the minor requirement.

REQUIRED COURSES

Code	Title	Credits
General Structure of the Program		
POLI SCI 800	Political Science as a Discipline and Profession (Must be done in the first semester)	1
POLI SCI 817	Empirical Methods of Political Inquiry	3
	Statistical Methodology Coursework-Graduate Level	3
	Meet with your advisor to discuss the faculty's First Year Assessment of your progress in the program by the start of your third semester.	
	Take and pass two general prelims from the specified list (International Relations, American Politics, Comparative Politics, Political Theory, Political Methodology) in June following your fourth semester.	
	Present one or more possible dissertation ideas to a committee with a minimum of two faculty members no later than September 15th of the 5th semester.	
POLI SCI 801	Research and Writing Seminar	3
	Submit a conference level research paper for review by January 15 before start of 6th semester.	
	Complete the minor requirement.	9
	Meet the minimum graduate credit requirement.	32
	Fulfill any requirements specified by the student's primary subfield, such as presenting at a workshop.	
	Maintain minimum of B average in coursework.	
	Remove all Incompletes before defending the dissertation proposal.	
	Produce an approved dissertation proposal before the start of the seventh semester.	
	Write, defend and deposit a thesis of an acceptable standard that makes an original contribution to knowledge.	
Total Credits		51

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://polisci.wisc.edu/sites/polisci.wisc.edu/files/Grad%20Guide%202017.pdf>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students may be allowed to count 9 credits of graduate coursework from other institutions toward fulfillment of the minor requirement. While satisfying the minor requirement, these credits will not count toward meeting the minimum credit requirement. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW-Madison Undergraduate

No credits from a UW-Madison undergraduate degree are allowed to count toward the degree.

UW-Madison University Special

No credits from a UW-Madison University Special student career may count toward the degree.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

ADVISOR / COMMITTEE

All students are required to meet with their advisor to discuss the first year review.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

OTHER

The Department currently guarantees at least five years of financial support to all students admitted to the doctoral program, assuming they are making satisfactory progress toward their degrees. This funding may be in the form of fellowships, teaching assistantships, or project assistantships. All appointments receive valuable fringe benefits such as excellent health insurance and tuition remission.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Master the state of existing research in two or more subfields of political science.
2. Acquire expert knowledge of methods of political inquiry.
3. Design, conduct, and complete original research of substantive value to the field of political science that makes and original contribution to knowledge.
4. Master the communication of complex concepts to a range of audiences.
5. Demonstrate and foster ethical and professional conduct in research, teaching, and service.

PEOPLE

Faculty: Professors Burden, Canon, Cramer, Gehlbach, Hendley, Herrera, Kydd, Marquez, Martin, Mayer, Owens, Pevehouse, Ringe, Schweber, Straus, Tripp, Weimer, Yackee, Zumbunnen (chair); Associate Professors Avramenko, Bhavnani, Copelovitch, Kapust, Powell, Renshon, Shelef, Simmons, Weeks; Assistant Professors Lindsay, Schwarze, Tahk

POPULATION HEALTH SCIENCES

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Epidemiology, M.S. (p. 1180)
- Epidemiology, Ph.D. (p. 1183)
- Global Health, Graduate/Professional Certificate (p. 1187)
- Population Health, Doctoral Minor (p. 1189)
- Population Health, M.S. (p. 1190)
- Population Health, Ph.D. (p. 1195)

PEOPLE

Faculty: Professors Durkin (interim chair), Cruickshanks, Gangnon, Kanarek, Mullahy, Oliver, Palta, Patz, Remington, M. Smith, Trentham-Dietz, Wolfe; Associate Professors Astor, Bautista, Ehrental, Engelman, Peppard, Sethi, Vanness; Assistant Professors M. Burns, Malecki

EPIDEMIOLOGY, M.S.

Epidemiology is the scientific discipline primarily concerned with identifying the distribution and causes of disease in populations. It encompasses a rich methodology including observational and experimental study designs, statistical methods, an understanding of pathogens, environmental and behavioral risk factors, and human biology. Epidemiological methods have evolved to meet threats of global infectious diseases and the complex health challenges presented by an aging population, as well as to capitalize on the expanding understanding of human genetics. As the fundamental discipline of public health, epidemiology provides essential knowledge to design, implement, and assess approaches to effectively prevent disease and improve quality of life in the population.

The research-oriented degree programs are designed to provide rigorous training to develop students' abilities to synthesize knowledge and skills needed to address today's health-related problems. Faculty, staff, and students in the Department of Population Health Sciences engage in a wide variety of epidemiological and health services world-class research projects. The interdisciplinary focus allows students the flexibility to work with a wide array of research/faculty on campus.

The department offers two graduate degree programs: an M.S. and a Ph.D. in epidemiology and an M.S. and Ph.D. in population health. While the program is based on a sequence of core courses, students, in consultation with their major professor, have some flexibility to design advanced study and research that best prepares them for their chosen area of interest.

ADMISSIONS

Applications are welcome from students with diverse academic backgrounds. Students with strong quantitative skills and academic preparation in the biological sciences are strongly encouraged to apply. New students are admitted to start in the fall semester of each school

year. Applications are due by January 15 of each year. Late applications are not accepted.

Minimum requirements are:

- Applicants must have an undergraduate degree with a grade point average of 3.0 (on a 4.0 scale), although successful applicants generally have GPAs above 3.0.
- GRE scores are required for admission. The scores must be no more than five years old at the time of application. For applicants who have completed a doctoral degree, GRE scores are preferred but the program will accept scores for the entrance exam required for the doctoral degree (e.g., MCAT, LSAT). Students should contact the graduate program coordinator to find out if their scores are competitive.
- Applicants whose native language or language of study is not English must submit official TOEFL scores. Scores must be no more than five years old at the start of the semester for which an applicant is applying. Further details are available on the Graduate School website (<http://grad.wisc.edu>). Note that the minimum test scores for the program are higher than those required by the Graduate School. For the Test of English as a Foreign Language, TOEFL (<http://www.toefl.org>), minimum scores of 580 (written), 237 (computer-based), or 92 (Internet-based) or above are required.
- Transcripts must show evidence of quantitative preparation, including at least one semester of calculus as well as a two-semester courses in college-level biology. A personal statement and three letters of recommendation are required. Applicants must meet both the above departmental admission requirements and the Graduate School admission requirements.
- Upon entry to the graduate program, students are matched with a faculty advisor. Faculty advisors helps students hone their interests, assists with identifying research projects, provide support for career development, and link students to the greater campus community. Students have the benefit of regular dialogues with faculty members. Seminars and integrated discussion groups allow for increased interaction with core faculty and community lecturers. Finally, the work of students is valued as evidenced by their entries in the annual department poster session, participation in public health symposia, authorship of publications, and involvement in community/research projects.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Students admitted to our degree programs are automatically considered for any available scholarships, traineeships, or graduate assistant positions in the department. The most common forms of funding support for our students are assistantships, traineeships, and fellowships.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	Yes	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum
Credit
Requirement

Minimum
Residence
Credit
Requirement

Minimum
Graduate
Coursework
Requirement

33 credits

21 credits

100% of all coursework taken as a graduate student in any of the four degrees the program offers must be completed in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement Students must maintain a cumulative GPA of at least 3.25 in all graduate work (including transfer credits) unless conditions for probationary status require higher grades. Students must also maintain a cumulative GPA of 3.25 or better in all coursework completed while enrolled in the population health graduate program. No grade of BC or lower in epidemiology required courses will be accepted for the degree.

Other Grade Requirements Maintain no more than 6 credits of Incomplete (I) grades during any semester.

Assessments and Examinations No formal examination required.

Language Requirements No language requirements.

REQUIRED COURSES

Code	Title	Credits
POP HLTH/B M I 451	Introduction to SAS Programming for Population Health	2
POP HLTH/B M I 551	Introduction to Biostatistics for Population Health	3
POP HLTH/B M I 552	Regression Methods for Population Health	3
POP HLTH/SOC 797	Introduction to Epidemiology	3
POP HLTH 798	Epidemiologic Methods	3
POP HLTH 805	Advanced Epidemiology: Causal Inference in Epidemiological Studies	3
or POP HLTH 806	Advanced Epidemiology: Practice of Epidemiology	
POP HLTH 820	Graduate Research Seminar	1

Select a minimum of 1 credit of course work in "the responsible conduct of research"

M.S. students must complete at least nine credits of specialization coursework from the list below.

Responsible Conduct of Research courses

Code	Title	Credits
MED HIST 545	Ethical and Regulatory Issues in Clinical Investigation (Offered in Fall. MED HIST 545 does not fulfill all the NIH requirements for training in the responsible conduct of research for certain T and F awards.)	1
NURSING 802	Ethics and the Responsible Conduct of Research (Offered in Spring)	1
SURG SCI 812	Research Ethics and Career Development	2
OBS&GYN 955	Responsible Conduct of Research for Biomedical Graduate Students (Offered in Fall)	2
OBS&GYN 956	Advanced Responsible Conduct of Research for Biomedical Students (Offered in Spring)	1

Other courses may be substituted as approved by the advisor and the director of grad studies

Epidemiology Specialization Courses

Code	Title	Credits
M M & I/ POP HLTH 603	Clinical and Public Health Microbiology	5
POP HLTH/ ENVIR ST 560	Health Impact Assessment of Global Environmental Change	3
POP HLTH/ NUTR SCI 621	Introduction to Nutritional Epidemiology	1
POP HLTH 713	Epidemiology of HIV/AIDS	1
POP HLTH 750	Cancer Epidemiology	2-3
POP HLTH 780	Public Health: Principles and Practice	3
POP HLTH 786	Social and Behavioral Sciences for Public Health	3
POP HLTH/ M&ENVTOX 789	Principles of Environmental Health: A Systems Thinking Approach	3
POP HLTH/ KINES 791	Physical Activity Epidemiology	3
POP HLTH 801	Epidemiology of Infectious Diseases	3
POP HLTH 805	Advanced Epidemiology: Causal Inference in Epidemiological Studies	3
POP HLTH 806	Advanced Epidemiology: Practice of Epidemiology	3
POP HLTH/ OBS&GYN 807	Reproductive and Perinatal Epidemiology	2
POP HLTH 847	Cardiovascular Epidemiology	1
POP HLTH/AN SCI/ GENETICS 849	Genetic Epidemiology	3
POP HLTH/ GENETICS/ MD GENET 888	Public Health Genomics	1
POP HLTH 904	Special Topics in Epidemiology	1-3
POP HLTH/ KINES 955	Seminar - Physical Activity Epidemiology	1
SOC 751	Survey Methods for Social Research	3
SOC 752	Measurement and Questionnaires for Survey Research	3
STAT/B M I 541	Introduction to Biostatistics	3

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://pophealth.wisc.edu/grad/academicGuide>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count a maximum of 12 credits of graduate coursework taken from other institutions as a graduate student. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

With program approval, students are allowed to count no more than 12 credits of coursework numbered 300 or above taken as a UW–Madison University Special student. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

A student not meeting guidelines for satisfactory progress will be placed on probation for one semester and will be reviewed by the Steering Committee following the probationary semester. Students may be dropped or allowed to continue by the committee based on review of progress during the probationary semester.

ADVISOR / COMMITTEE

All students will have a hold placed on their registration each semester. Students must meet with their advisor once each semester for academic advising to have the hold removed.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Thesis required. Approval of a written proposal for thesis research is required before beginning thesis. M.S. candidates must submit master's thesis to advisor within two years of completing all coursework.

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence.

OTHER

While we can't guarantee funding for all enrolled students, we work in partnership with each student to find all suitable funding options.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Articulate, critique, and elaborate the methodological, biostatistical, and biologic foundations of research and practice of Epidemiology.
2. Identify literature and data sources, assemble, evaluate and synthesize evidence through critical review and data analysis pertaining to questions and challenges about causes and distribution of diseases and other factors related to health .
3. Demonstrate understanding of Epidemiology in its subject matter, historical and social context.
4. Select and utilize the most appropriate study designs and statistical methods for answering questions in Epidemiology.
5. Communicate clearly both in writing and orally in ways appropriate to Epidemiology.
6. Advance contributions to society of the methods and knowledge base of Epidemiology.
7. Recognize and apply principles of ethical professional conduct in their scholarship.

PEOPLE

Faculty: Professors Durkin (interim chair), Cruickshanks, Gangnon, Kanarek, Palta, Patz, Remington, Trentham-Dietz; Associate Professors Astor, Bautista, Ehrenthal, Engleman, Peppard, Sethi; Assistant Professor Malecki

EPIDEMIOLOGY, PH.D.

Epidemiology is the scientific discipline primarily concerned with identifying the distribution and causes of disease in populations. It encompasses a rich methodology including observational and experimental study designs, statistical methods, an understanding of pathogens, environmental and behavioral risk factors, and human biology. Epidemiological methods have evolved to meet threats of global infectious diseases and the complex health challenges presented by an aging population, as well as to capitalize on the expanding understanding of human genetics. As the fundamental discipline of public health, epidemiology provides essential knowledge to design, implement, and assess approaches to effectively prevent disease and improve quality of life in the population.

The research-oriented degree programs are designed to provide rigorous training to develop students' abilities to synthesize knowledge and skills needed to address today's health-related problems. Faculty, staff, and students in the Department of Population Health Sciences engage in a wide variety of epidemiological and health services world-class research

projects. The interdisciplinary focus allows students the flexibility to work with a wide array of research/faculty on campus.

The department offers two graduate degree programs: an M.S. and a Ph.D. in epidemiology and an M.S. and Ph.D. in population health. While the program is based on a sequence of core courses, students, in consultation with their major professor, have some flexibility to design advanced study and research that best prepares them for their chosen area of interest.

ADMISSIONS

Applications are welcome from students with diverse academic backgrounds. Students with strong quantitative skills and academic preparation in the biological sciences are strongly encouraged to apply. New students are admitted to start in the fall semester of each school year. Applications are due by January 15 of each year. Late applications are not accepted.

Minimum requirements are:

- Applicants must have an undergraduate degree with a grade point average of 3.0 (on a 4.0 scale), although successful applicants generally have GPAs above 3.0.
- GRE scores are required for admission. The scores must be no more than five years old at the time of application. For applicants who have completed a doctoral degree, GRE scores are preferred but the program will accept scores for the entrance exam required for the doctoral degree (e.g., MCAT, LSAT). Students should contact the graduate program coordinator to find out if their scores are competitive.
- Applicants whose native language or language of study is not English must submit official TOEFL scores. Scores must be no more than five years old at the start of the semester for which an applicant is applying. Further details are available on the Graduate School website (<http://grad.wisc.edu>). Note that the minimum test scores for the program are higher than those required by the Graduate School. For the Test of English as a Foreign Language, TOEFL (<http://www.toefl.org>), minimum scores of 580 (written), 237 (computer-based), or 92 (Internet-based) or above are required.
- Transcripts must show evidence of quantitative preparation, including at least one semester of calculus as well as a two-semester courses in college-level biology. A personal statement and three letters of recommendation are required. Applicants must meet both the above departmental admission requirements and the Graduate School admission requirements.
- Upon entry to the graduate program, students are matched with a faculty advisor. Faculty advisors helps students hone their interests, assists with identifying research projects, provide support for career development, and link students to the greater campus community. Students have the benefit of regular dialogues with faculty members. Seminars and integrated discussion groups allow for increased interaction with core faculty and community lecturers. Finally, the work of students is valued as evidenced by their entries in the annual department poster session, participation in public health symposia, authorship of publications, and involvement in community/research projects.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements

of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Students admitted to our degree programs are automatically considered for any available scholarships, traineeships, or graduate assistant positions in the department. The most common forms of funding support for our students are assistantships, traineeships, and fellowships.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	Yes	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 65 credits

Minimum Residence Credit Requirement 53 credits

Minimum Graduate Coursework Requirement Half of degree coursework must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.

Overall Graduate GPA Requirement Students must maintain a cumulative GPA of at least 3.25 in all graduate work (including transfer credits) unless conditions for probationary status require higher grades. Students must also maintain a cumulative GPA of 3.25 or better in all coursework completed while enrolled in the population health graduate program. No grade of BC or lower in epidemiology required courses will be accepted for the degree.

Other Grade Requirements Maintain no more than 6 credits of Incomplete (I) grades during any semester.

Assessments and Examinations Full-time students have up until the end of their third year to pass the Qualifying Exam and their first sitting must occur no later than the end of their second year. Part-time students are expected to pass the exam before the end of their fourth year (regardless of whether the student is continuously enrolled) and their first sitting must occur no later than the end of their third year.

Language Requirements No language requirements.

Doctoral Minor/Breadth Requirements All doctoral students are required to complete a 10-credit minor.

REQUIRED COURSES

Code	Title	Credits
POP HLTH/B M I 451	Introduction to SAS Programming for Population Health	2
POP HLTH/B M I 551	Introduction to Biostatistics for Population Health	3
POP HLTH/B M I 552	Regression Methods for Population Health	3
POP HLTH/B M I 651	Advanced Regression Methods for Population Health	3
POP HLTH/B M I 652	Topics in Biostatistics for Epidemiology	1-3
POP HLTH/SOC 797	Introduction to Epidemiology	3
POP HLTH 798	Epidemiologic Methods	3
POP HLTH 805	Advanced Epidemiology: Causal Inference in Epidemiological Studies	3
POP HLTH 806	Advanced Epidemiology: Practice of Epidemiology	3
POP HLTH 820	Graduate Research Seminar	1

Select a minimum of 1 credit of course work in "the responsible conduct of research"

Ph.D. students must complete at least 12 additional credits of specialization work from the list below.

See below for list of acceptable courses to satisfy the fourth-semester biostatistics requirement

Responsible Conduct of Research courses

Code	Title	Credits
MED HIST 545	Ethical and Regulatory Issues in Clinical Investigation (Offered in Fall. MED HIST 545 does not fulfill all the NIH requirements for training in the responsible conduct of research for certain T and F awards.)	1
NURSING 802	Ethics and the Responsible Conduct of Research (Offered in Spring)	1
SURG SCI 812	Research Ethics and Career Development	2
OBS&GYN 955	Responsible Conduct of Research for Biomedical Graduate Students (Offered in Fall)	2
OBS&GYN 956	Advanced Responsible Conduct of Research for Biomedical Students (Offered in Spring)	1

Other courses may be substituted as approved by the advisor and director of grad studies

Epidemiology Specialization Courses

Code	Title	Credits
M M & I/ POP HLTH 603	Clinical and Public Health Microbiology	5
POP HLTH/ NUTR SCI 621	Introduction to Nutritional Epidemiology	1
POP HLTH 650	Special Topics (Topic: Environ. Health Epidemiology)	1-6
POP HLTH 713	Epidemiology of HIV/AIDS	1
POP HLTH 750	Cancer Epidemiology	2-3
POP HLTH 780	Public Health: Principles and Practice	3
POP HLTH 786	Social and Behavioral Sciences for Public Health	3
POP HLTH/ M&ENVTOX 789	Principles of Environmental Health: A Systems Thinking Approach	3
POP HLTH/ KINES 791	Physical Activity Epidemiology	3
POP HLTH 801	Epidemiology of Infectious Diseases	3
POP HLTH 805	Advanced Epidemiology: Causal Inference in Epidemiological Studies	3
POP HLTH 806	Advanced Epidemiology: Practice of Epidemiology	3
POP HLTH/ OBS&GYN 807	Reproductive and Perinatal Epidemiology	2
POP HLTH 847	Cardiovascular Epidemiology	1
POP HLTH/AN SCI/ GENETICS 849	Genetic Epidemiology	3

POP HLTH/ GENETICS/ MD GENET 888	Public Health Genomics	1
POP HLTH 904	Special Topics in Epidemiology	1-3
POP HLTH/ KINES 955	Seminar - Physical Activity Epidemiology	1
SOC 751	Survey Methods for Social Research	3
SOC 752	Measurement and Questionnaires for Survey Research	3
STAT/B M I 541	Introduction to Biostatistics	3

Acceptable Courses to Satisfy the 4th-Semester Biostatistics Requirement

Code	Title	Credits
B M I/POP HLTH 652	Topics in Biostatistics for Epidemiology	1-3
STAT 349	Introduction to Time Series	3
STAT 351	Introductory Nonparametric Statistics	3
STAT 411	An Introduction to Sample Survey Theory and Methods	3
STAT 456	Applied Multivariate Analysis	3
STAT/COMP SCI 471	Introduction to Computational Statistics	3
STAT 575	Statistical Methods for Spatial Data	3
STAT/B M I 641	Statistical Methods for Clinical Trials	3
STAT/B M I 642	Statistical Methods for Epidemiology	3
STAT 761	Decision Trees for Multivariate Analysis	3
SOC 952	Seminar-Mathematical and Statistical Applications in Sociology (can be taken with approval for appropriate topics)	3
ED PSYCH 711	Current Topics in Educational Psychology	1-3
ED PSYCH 773	Factor Analysis, Multidimensional Scaling and Cluster Analysis	3
ED PSYCH 861	Statistical Analysis and Design in Educational Research	3
ED PSYCH 862	Multivariate Analysis	3
ED PSYCH 871	Test Theory II	3
ED PSYCH 960	Structural Equation Modeling	3
ED PSYCH/ELPA 964	Hierarchical Linear Modeling	3

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://pophealth.wisc.edu/grad/academicGuide>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count a maximum of 12 credits of graduate coursework taken from other institutions as a graduate student. Coursework earned five or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

With program approval, students are allowed to count no more than 12 credits of coursework numbered 300 or above taken as a UW–Madison University Special student. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

PROBATION

A student not meeting guidelines for satisfactory progress will be placed on probation for one semester and will be reviewed by the Steering Committee following the probationary semester. Students may be dropped or allowed to continue by the committee based on review of progress during the probationary semester.

ADVISOR / COMMITTEE

All students will have a hold placed on their registration each semester. Students must meet with their advisor once each semester for academic advising to have the hold removed.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Dissertation required. Doctoral students have a maximum of five years from the date of passing the preliminary examination to take the final oral examination and deposit the dissertation.

Doctoral degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence.

OTHER

While we can't guarantee funding for all enrolled students, we work in partnership with each student to find all suitable funding options.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Articulate research problems, potentials, and limits with respect to theory, knowledge, and practice of Epidemiology based on understanding of its methodological, biostatistical, and biologic foundations.
2. Assemble, evaluate and synthesize evidence from literature and data sources to formulate ideas, concepts, designs, and/or techniques beyond the current boundaries of knowledge about causes, distribution, and prognosis of diseases and other factors related to health.
3. Demonstrate breadth and depth of knowledge of Epidemiology in a specific substantive area, such as, but not limited to, infectious diseases, genetics, sleep, chronic diseases, environmental, and social epidemiology.
4. Create research that makes a substantive contribution to the knowledge base of Epidemiology.
5. Develop mastery of scholarship in Epidemiology relevant to generate knowledge useful to inform research needs and public health and patient care policies
6. Communicate complex ideas both in writing and orally in a clear and understandable manner.
7. Recognize and apply principles of ethical and professional conduct in their scholarship.

PEOPLE

Faculty: Professors Durkin (interim chair), Cruickshanks, Gangnon, Kanarek, Palta, Patz, Remington, Trentham-Dietz; Associate Professors Astor, Bautista, Ehrenthal, Engleman, Gangnon, Peppard, Sethi; Assistant Professor Malecki

GLOBAL HEALTH, GRADUATE/ PROFESSIONAL CERTIFICATE

The Graduate/Professional Certificate in Global Health Program is designed to advance the knowledge and capabilities of learners with interests in global health. The certificate is available to graduate students and students in a professional degree program (typically in the health sciences),

The certificate curriculum focuses on global health topics and health issues that transcend national boundaries. Through this nine-credit program, which includes academic course work and a global health field experience emphasizing two-way learning, students will be prepared to better address health challenges and disparities in a context of cultural diversity, both at home and abroad. Certificate candidates often work

with partners and sites internationally, but may also apply a global lens to issues of health and wellbeing in Wisconsin and other parts of the United States. This global-to-local philosophy is important to the program. Through choices of elective/selective courses, students may focus their studies on health promotion, detection and treatment of disease, prevention and management of outbreaks, health policy, environmental health, or other current and important global health topics. The certificate emphasizes multidisciplinary learning and approaches to global health challenges.

Educational Benchmarks for Certificate Program

- *To demonstrate self-guided learning habits, recognizing that experiential learning opportunities exist in many forms and that learning is a life-long endeavor.*
- *To interpret quantitative and qualitative information from the sciences, social sciences, and the humanities to inform global health work.*
- *To integrate contextually-grounded information about a location's health, history, politics, culture, and environment into one's learning experiences.*
- *To practice directed self-assessment and reflection about one's experiences and chosen profession, including consideration of one's role as a member of an interdisciplinary team.*
- *To compare and contrast the practice of health-related activities in different settings, including the social production of health and well-being.*
- *To draw connections between global experiences and local needs.*
- *To work effectively as a member of a diverse team to achieve shared goals.*
- *To effectively communicate ideas about health to other professions, as well as to community leaders and members of the general public.*
- *To recognize valuable opportunities for high and low-middle income countries to learn from one another, and creatively evaluate assets in addressing problems.*
- *To model ethical models of community-based engagement, recognizing the mutual benefit to learners and to the host community.*

ADMISSIONS

The application period for 2018–2019 will be January 15 through April 30, 2018.

In addition to the Certificate in Global Health application form, which will be available during the application period, program applicants are required to submit a current resume and original transcripts from all postsecondary schools attended. (Applicants who are currently enrolled in or have been accepted to a UW–Madison health sciences or graduate studies program may request to have copies of their transcripts sent from their program administrator to GHI.)

Students who already hold an Undergraduate Certificate in Global Health from UW–Madison are encouraged to contact the Global Health Institute to discuss options for advanced study. Please do not apply for the graduate/professional certificate.

REQUIREMENTS

Completion of a minimum of nine credits is required for the certificate, including six core course credit requirements, one of which is a credit-based global health field experience, and three elective credits. A description of the core requirements and electives is provided below.

Core course requirements

Code	Title	Credits
Core		
POP HLTH 718	Principles of Global Health Care Systems ¹	2
POP HLTH 904	Special Topics in Epidemiology (Global Health)	2
Students choose one of the following sequences:		
POP HLTH 640	Foundations in Global Health Practice ²	1
Independent Study 699 ³		1
<i>or</i>		
POP HLTH 644 & POP HLTH 645	Interdisciplinary Perspectives on Global Health and Disease and Global Health Field Course ⁴	2
Students take electives to complete credit requirements. Consult with Global Health Institute program staff for updated list.		3

¹ If possible, for optimal preparation, POP HLTH 718 should be taken prior to POP HLTH 640 and undertaking an independent field experience.

² POP HLTH 640 is for students planning to do an independent global health field experience. It includes selecting a site, identifying a counterpart organization, developing a scope of work that is of mutual benefit to the student and the counterpart organization, and preparation for travel (health and safety). **Certificate students planning on taking part in the Guatemala faculty-led field course are also required to take POP HLTH 640** but will focus on slightly different elements than those preparing for independent study.

Fourth year PharmD students who intend to fulfill the field requirement with an Advanced Pharmacy Practice Experience (APPE) may use PHM PRAC 673 Seminars in Global Health Pharmacy as the pre-requisite course in place of POP HLTH 640.

³ Students should take Independent Study 699 in the department of advisor, with certificate director approval.

⁴ POP HLTH 644 is for students planning to participate in the Uganda, Thailand, or Ecuador faculty-led field courses and includes site-specific course work. *Eligibility for enrollment in POP HLTH 644 is contingent upon acceptance into one of the POP HLTH 645 field courses (see below).*

GLOBAL HEALTH FIELD EXPERIENCE

(1-6 credits in total; 1 credit counts toward certificate requirements)

A global health field experience is an academic credit-based learning experience in a setting relevant to global health. Field experiences are generally carried out during winter, spring, or summer breaks within the normal academic calendar; 1 week of on-site learning is equivalent to 1 credit. **(Please note that only one field experience credit counts toward certificate requirements; additional field course credits earned cannot be applied to the elective requirements.)** Global health field experiences may also be carried out during the academic semester if they do not interfere with class attendance or completion of requirements for registered coursework.

Students may elect to do: a **faculty-led interdisciplinary group field course** administered by the UW–Madison Office of International

Academic Programs (IAP); a **faculty-led health professions (primarily medical students) group field course**, requiring registration as an independent study and administered by GHI; or, they may choose to design an **independent field experience** at the site of their choice, with approval of an academic advisor and the certificate program director. Field experiences usually take place in a country outside the United States, but may also be carried out in the U.S., working with international/underserved populations or addressing health issues that have global implications. Students may also work with international agencies, such as the United Nations, the World Health Organization, Centers for Disease Control and Prevention, or nongovernmental organizations.

Field experience requirements:

Students must be in **good academic standing** to participate in a global health field experience.

For POP HLTH 645 Global Health Field Course **faculty-led group courses (Thailand, Uganda, Ecuador)**, students are required to take the related prerequisite campus-based course (POP HLTH 644 Interdisciplinary Perspectives on Global Health and Disease) and apply to participate in the field course through the campus-wide Office of International Academic Programs. (<https://www.studyabroad.wisc.edu>) Upon satisfactory completion of the field course, students will receive credit for POP HLTH 645 Global Health Field Course.

For **independent field experiences**, certificate students must prepare a proposal, to be reviewed and approved by his or her advisor and the Certificate Program Director, which describes project goals and objectives and outlines a tentative schedule of activities. Students must register for independent study credit in an appropriate school or department (a 699 course number in most health sciences and graduate departments). Master of Public Health (MPH) students who are also global health certificate students and doing an independent field experience should register for POP HLTH 788 The Public Health Field Experience, in place of a 699. Please note that POP HLTH 640 Foundations in Global Health Practice, is a prerequisite for POP HLTH 788 The Public Health Field Experience for these dual MPH/global health certificate students.

All students completing independent field experiences are required by the School of Medicine and Public Health (SMPH) to execute an affiliation agreement between the field site organization and the SMPH/University of Wisconsin–Madison.

Upon completion of the field experience, all students must submit to the Certificate program office:

- A reflection paper (based on a journal kept throughout the field course/experience);
- An instructor evaluation of the student; and,
- A reference-cited, academic paper/project report.

Students completing an **independent field experience** will also need to submit a site evaluation.

LEARNING OUTCOMES

1. Exhibit the ability to describe and compare the health care systems in different areas of the world (such as: an understanding of pros and cons of systems, comparison to the US system, and trends in the evolution of health care systems over time).
2. Demonstrate knowledge of the epidemiology of common global health concerns, both communicable and non-communicable (such

as: differences between high/middle/low income countries and programs to mitigate the impacts of these health issues such as the millennium and sustainable development goals).

3. Demonstrate the ability to integrate information from multiple perspectives into an assessment of a country/location's health status (such as: history, politics, culture, societal structure, economics, environmental sciences, health care system(s), health databases, disease epidemiology, human rights, human subjects protections).
4. Model ethical behavior in global health engagement (such as: appreciation of the bidirectional nature of learning and mutual benefits between stakeholders and learners, cultural humility and flexibility, recognition of the importance of program sustainability over time, openness to new information/ideas).
5. Demonstrate professionalism, effective communication, leadership, problem-solving, and collaboration across multiple health education disciplines and stakeholders in addressing a global health issue (including an understanding of One Health approaches).
6. Exhibit the ability for growth in one's approach to global health work through self-assessment and structured reflection (such as: personal biases and perspectives, views on equity and disparities, personal limitations)

PEOPLE

Key Contacts:

Christopher Olsen (<http://ghi.wisc.edu/person/olsen-chris>)
Director and Faculty Advisor
chris.olsen@wisc.edu

Betsy Teigland (<http://ghi.wisc.edu/person-types/staff-associates>)
Programs Coordinator
teigland@wisc.edu

James Conway (<http://ghi.wisc.edu/person/james-conway>)
Program Advisor
jhconway@wisc.edu

Lori DiPrete Brown
Program Advisor
dipretebrown@wisc.edu

POPULATION HEALTH, DOCTORAL MINOR

Many, if not all, research endeavors have implications for health. The doctoral minor in population health provides the methodological foundations for understanding how health is evaluated, how to assess influences on health and how to critically evaluate health related research. In addition, students completing the minor enhance their general understanding of research design and statistical interpretation.

The coursework encompasses the methodological cornerstones of population health and clinical research: epidemiology, health services research, and biostatistics. The electives allow students to emphasize epidemiology or health services research.

The population health minor is open to students in any major field of graduate studies at the University of Wisconsin. Given the necessarily

quantitative emphasis of the coursework, a prior one-semester course in biostatistics (such as POP HLTH/B M I 551, B M I/STAT 541, STAT/F&W ECOL/HORT 571 or B M I/STAT 511) is required or can be taken simultaneously (prior to B M I/POP HLTH 552) with coursework for the minor.

ADMISSIONS

In order to have approval to pursue the population health minor, please send an email to the Population Health Sciences graduate program coordinator, Quinn Fullenkamp (quinn.fullenkamp@wisc.edu), explaining the sequence of courses that you plan to take toward the doctoral minor requirement. Be sure to include course completion dates. Your plan will be approved via email. When you are ready to have your warrant signed, email Quinn Fullenkamp again to make arrangements to obtain a signature.

REQUIREMENTS

A minimum of 10 credits of coursework consisting of three required 3-credit courses and 1–3 credits of a Population Health elective must be completed. The minor will consist of the following Population Health Sciences courses:

Code	Title	Credits
Required courses:		
POP HLTH/SOC 797	Introduction to Epidemiology	3
POP HLTH 795	Principles of Population Health Sciences (Preferred full semester option only)	3
or POP HLTH 780	Public Health: Principles and Practice	
POP HLTH 796	Introduction to Health Services Research	3
or POP HLTH 798	Epidemiologic Methods	
POP HLTH/B M I 552	Regression Methods for Population Health	3
POP HLTH/B M I 651	Advanced Regression Methods for Population Health	3

Students are strongly encouraged to take one of the following as an elective. However, other POP HLTH courses can be considered:

A likely course sequence for the doctoral minor in population health would be as follows:

Fall	Credits Spring	Credits
POP HLTH 795 or 780	1-3 POP HLTH 796 or 798	3
POP HLTH/SOC 797	3 POP HLTH Elective	3
	4-6	6

Total Credits 10-12

Students who request exemptions and/or substitutions for required minor courses must appeal to the director of the graduate program through the graduate program coordinator. In this case, the appeal must include a Proposed Minor Program Plan, which must be approved and signed by the graduate program director.

POPULATION HEALTH, M.S.

The Department of Population Health Sciences, part of the School of Medicine and Public Health, strives to provide leadership in the emerging, integrative field of population health. Its mission is to create, integrate, disseminate, and apply knowledge promoting the most efficient, equitable, and effective possible use of resources to maintain and improve the health of populations.

The department offers two graduate degree programs: an M.S. and a Ph.D. in population health and an M.S. and Ph.D. in epidemiology. The M.S. and Ph.D. in Population Health can also be taken with an available named option in Epidemiology (p. 1193).

The research-oriented degree programs are designed to provide rigorous, interdisciplinary training to develop students' abilities to synthesize knowledge and skills needed to address today's health-related problems. Methodological and analytical training is grounded in biostatistics, epidemiology, and health services research, but also emphasizes methods employed in the social sciences and econometrics that contribute to the study of health in populations. While the program is based on a sequence of core courses, students, in consultation with their major professor, have the flexibility to design advanced study and research that best prepares them for their chosen area of interest.

Individuals choose this program because of its innovative approach, strong research focus, and personal attention to students. It is an ideal option for those considering a broad array of fields including epidemiology, public health, health policy, health economics, health services research, environmental health, industrial engineering, demography, and more. UW–Madison ranks as one of the most prolific research universities in the world, consistently placing in the top five among American public universities for research expenditures. The program's interdisciplinary focus allows students the flexibility to work with a wide array of research/faculty on campus. For instance, program faculty include members from a number of other departments such as business, family medicine, industrial engineering, law, medical history and bioethics, medicine, nursing, ophthalmology, public affairs, sociology, and veterinary medicine. The multidisciplinary faculty coupled with the diverse backgrounds of the students provides a rich and stimulating training environment.

Faculty, staff, and students in the Department of Population Health Sciences engage in a wide variety of epidemiological and health services world-class research projects to understand determinants of health and health problems in populations, to analyze public and clinical health policies, and to improve the effectiveness and efficiency of healthcare. Research topics may include (but are not limited to) chronic, infectious, and environmental disease epidemiology; public health; studies of medical outcomes; health economics; maternal and childhood health; the determinants and measurement of population health status; and health administration and policy. These multidisciplinary research programs may include (but are not limited to) the study the effects and interactions of genetic traits; biologic and metabolic processes; pathogens; pollutants; lifestyles; behaviors; economic social and physical environments; and public health and health care systems on the health of populations. Methods employed involve developing and maintaining long term cohort studies, disease registries, population surveys, and retrospective analyses of large observational databases. Researchers in the department also work to advance methodology in health economics, population health evaluation, and statistical analyses.

For more information, see the graduate program Academic Guide (<https://pophealth.wisc.edu/grad/academicGuide>).

ADMISSIONS

Applications are welcome from students with diverse academic backgrounds. Students with strong academic preparation in the biological/medical sciences, quantitative analysis, and/or population health related social sciences are strongly encouraged to apply. Historically, many applicants who have succeeded in our program have come to the program with backgrounds in fields as diverse as microbiology, genetics, nutritional sciences, medicine, nursing, pharmacy, veterinary medicine, environmental sciences, political sciences, business, sociology, education, engineering, psychology, and economics.

New students are admitted to start in the fall semester of each school year. Applications are due by January 15 of each year. Late applications are not accepted.

Minimum requirements are:

1. Applicants must fulfill all Graduate School requirements.
2. Applicants must have an undergraduate degree with a grade point average of 3.0 (on a 4.0 scale). Successful applicants generally have GPAs well above 3.0.
3. GRE scores no more than five years old are required for admission. Applicants with professional degrees may substitute their scores for the entrance exam that was required for the degree (e.g., MCAT, LSAT), if taken within the last 5 years. For more information on the GRE, see this link (<http://www.ets.org/gre>).
4. Applicants whose native language and language of study is not English must submit official TOEFL scores. Scores must be no more than five years old at the start of the semester for which an applicant is applying. Further details are available on the Graduate School website (<http://grad.wisc.edu/admissions/requirements>). Note that the minimum test scores for the program are higher than those required by the Graduate School. For the Test of English as a Foreign Language, (TOEFL) (<http://www.toefl.org>), a minimum score of 580 (written), 237 (computer-based), or 92 (Internet-based) or above is absolutely required. For the International English Language Testing System, (IELTS) (<http://www.ielts.org>), a minimum score of 7 is required. Use ETS institution code 1846.
5. At least one semester of advanced quantitative preparation (calculus is strongly preferred) with a grade of B or better.
6. A personal statement is required.
7. Three letters of recommendation are to be submitted electronically.

Upon entry to the graduate programs, students are matched with a faculty advisor. Faculty advisors helps students hone their interests, assists with identifying research projects, provide support for career development, and link students to the greater campus community. Students have the benefit of regular dialogues with faculty members. Seminars and integrated discussion groups allow for increased interaction with core faculty and community lecturers. Finally, the work of students is valued as evidenced by their entries in the annual department poster session, participation in public health symposia, authorship of publications, and involvement in community/research projects.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements

of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Students admitted to our degree programs are automatically considered for any available scholarships, traineeships, or graduate assistant positions in the department. The most common forms of funding support for our students are assistantships, traineeships, and fellowships.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	Yes	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum 33 credits

Credit Requirement

Minimum 21 credits

Residence Credit Requirement

Minimum 100% of all coursework taken as a graduate student must be in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.

Overall Graduate GPA Requirement Students must maintain a cumulative GPA of at least 3.25 in all graduate work (including transfer credits) unless conditions for probationary status require higher grades. Students must also maintain a cumulative GPA of 3.25 or better in all coursework completed while enrolled in the population health graduate program. No grade of BC or lower in epidemiology required courses will be accepted for the degree.

Other Grade Requirements Maintain no more than 6 credits of Incomplete (I) grades during any semester.

Assessments and Examinations No formal examination required.

Language Requirements No language requirements.

REQUIRED COURSES

Code	Title	Credits
POP HLTH/B M I 451	Introduction to SAS Programming for Population Health	2
POP HLTH/B M I 551	Introduction to Biostatistics for Population Health	3
POP HLTH/B M I 552	Regression Methods for Population Health	3
POP HLTH 795	Principles of Population Health Sciences	1-3
POP HLTH/SOC 797	Introduction to Epidemiology	3
POP HLTH 820	Graduate Research Seminar	1
Select two additional methods courses ¹		
Select a minimum of 1 credit of courses in "the responsible conduct of research"		
POP HLTH 794	Biological Basis of Population Health ²	2

¹ One of which must be POP HLTH 796 Introduction to Health Services Research or POP HLTH 798 Epidemiologic Methods.

² Some students must also complete this course.

Responsible Conduct of Research courses

Code	Title	Credits
MED HIST 545	Ethical and Regulatory Issues in Clinical Investigation (Offered in Fall. MED HIST 545 does not fulfill all the NIH requirements for training in the responsible conduct of research for certain T and F awards.)	1
NURSING 802	Ethics and the Responsible Conduct of Research (Offered in Spring)	1
SURG SCI 812	Research Ethics and Career Development	2
OBS&GYN 955	Responsible Conduct of Research for Biomedical Graduate Students (Offered in Fall)	2
OBS&GYN 956	Advanced Responsible Conduct of Research for Biomedical Students (Offered in Spring)	1

Other courses may be substituted as approved by the advisor and director of grad studies

NAMED OPTIONS (SUB-MAJORS)

A named option is a formally documented sub-major within an academic major program. Named options appear on the transcript with degree conferral.

- Population Health: Epidemiology, M.S. (p. 1193)

POLICIES**GRADUATE SCHOOL POLICIES**

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES**GRADUATE PROGRAM HANDBOOK**

The Graduate Program Handbook (<https://pophealth.wisc.edu/grad/academicGuide>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK**Graduate Work from Other Institutions**

With program approval, students are allowed to count a maximum of 12 credits of graduate coursework taken from other institutions as a graduate student. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

With program approval, students are allowed to count no more than 12 credits of coursework numbered 300 or above taken as a UW–Madison University Special student. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

A student not meeting guidelines for satisfactory progress will be placed on probation for one semester and will be reviewed by the steering committee following the probationary semester. Students may be dropped or allowed to continue by the committee based on review of progress during the probationary semester.

ADVISOR / COMMITTEE

All students will have a hold placed on their registration each semester. Students must meet with their advisor once each semester for academic advising to have the hold removed.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Thesis required. Approval of a written proposal for thesis research is required before beginning thesis. M.S. candidates must submit Master's thesis to advisor within two years of completing all coursework.

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence.

OTHER

n/a

PROFESSIONAL DEVELOPMENT**GRADUATE SCHOOL RESOURCES**

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Articulate, critique, and elaborate the health services, health assessment, microeconomic, biostatistical, and epidemiologic foundations of Population Health research and practice.
2. Identify literature and data sources, assemble, evaluate and synthesize evidence through critical review and data analysis pertaining to questions and challenges in Population Health.
3. Demonstrate understanding of Population Health in its subject matter, historical and social context.
4. Select and utilize the most appropriate study designs and statistical methods for answering questions in Population Health.
5. Communicate clearly both in writing and orally in ways appropriate to Population Health.

6. Advance contributions to society of the methods and knowledge base of Population Health and Health Services Research.
7. Recognize and apply principles of ethical professional conduct in their scholarship.

PEOPLE

Faculty: Professors Durkin (interim chair), Cruickshanks, Gangnon, Kanarek, Mullahy, Oliver, Palta, Patz, Remington, M. Smith, Trentham-Dietz, Wolfe; Associate Professors Astor, Bautista, Ehrenthal, Engelman, Peppard, Sethi, Vanness; Assistant Professors M. Burns, Malecki

POPULATION HEALTH: EPIDEMIOLOGY, M.S.

This is a named option in the Population Health M.S. (p. 1190)

ADMISSIONS

Applications are welcome from students with diverse academic backgrounds. Students with strong academic preparation in the biological/medical sciences, quantitative analysis, and/or population health related social sciences are strongly encouraged to apply. Historically, many applicants who have succeeded in our program have come to the program with backgrounds in fields as diverse as microbiology, genetics, nutritional sciences, medicine, nursing, pharmacy, veterinary medicine, environmental sciences, political sciences, business, sociology, education, engineering, psychology, and economics.

New students are admitted to start in the fall semester of each school year. Applications are due by January 15 of each year. Late applications are not accepted.

Minimum requirements are:

1. Applicants must fulfill all Graduate School requirements.
2. Applicants must have an undergraduate degree with a grade point average of 3.0 (on a 4.0 scale). Successful applicants generally have GPAs well above 3.0.
3. GRE scores no more than five years old are required for admission. Applicants with professional degrees may substitute their scores for the entrance exam that was required for the degree (e.g., MCAT, LSAT), if taken within the last 5 years. For more information on the GRE, see this link (<http://www.ets.org/gre>).
4. Applicants whose native language and language of study is not English must submit official TOEFL scores. Scores must be no more than five years old at the start of the semester for which an applicant is applying. Further details are available on the Graduate School website (<http://grad.wisc.edu/admissions/requirements>). Note that the minimum test scores for the program are higher than those required by the Graduate School. For the Test of English as a Foreign Language, (TOEFL) (<http://www.toefl.org>), a minimum score of 580 (written), 237 (computer-based), or 92 (Internet-based) or above is absolutely required. For the International English Language Testing System, (IELTS) (<http://www.ielts.org>), a minimum score of 7 is required. Use ETS institution code 1846.
5. At least one semester of advanced quantitative preparation (calculus is strongly preferred) with a grade of B or better.

6. A personal statement is required.
7. Three letters of recommendation are to be submitted electronically.

Upon entry to the graduate programs, students are matched with a faculty advisor. Faculty advisors help students hone their interests, assist with identifying research projects, provide support for career development, and link students to the greater campus community. Students have the benefit of regular dialogues with faculty members. Seminars and integrated discussion groups allow for increased interaction with core faculty and community lecturers. Finally, the work of students is valued as evidenced by their entries in the annual department poster session, participation in public health symposia, authorship of publications, and involvement in community/research projects.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Students admitted to our degree programs are automatically considered for any available scholarships, traineeships, or graduate assistant positions in the department. The most common forms of funding support for our students are assistantships, traineeships, and fellowships.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	Yes	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum 33 credits
Credit Requirement

Minimum 21 credits
Residence Credit Requirement

Minimum Graduate Coursework Requirement 100% of all coursework taken as a graduate student must be in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle>).

Overall Graduate GPA Requirement Students must maintain a cumulative GPA of at least 3.25 in all graduate work (including transfer credits) unless conditions for probationary status require higher grades. Students must also maintain a cumulative GPA of 3.25 or better in all coursework completed while enrolled in the population health graduate program. No grade of BC or lower in epidemiology required courses will be accepted for the degree.

Other Grade Requirements Maintain no more than 6 credits of Incomplete (I) grades during any semester.

Assessments and Examinations No formal examination required.

Language Requirements No language requirements.

REQUIRED COURSES

Code	Title	Credits
POP HLTH/B M I 451	Introduction to SAS Programming for Population Health	2
POP HLTH/B M I 551	Introduction to Biostatistics for Population Health	3
POP HLTH/B M I 552	Regression Methods for Population Health	3
POP HLTH 795	Principles of Population Health Sciences	1-3
POP HLTH/SOC 797	Introduction to Epidemiology	3
POP HLTH 798	Epidemiologic Methods	3

POP HLTH 805 Advanced Epidemiology: Causal Inference in Epidemiological Studies 3

or POP HLTH 806 Advanced Epidemiology: Practice of Epidemiology
POP HLTH 820 Graduate Research Seminar 1

Select a minimum of 1 credit of course work in "the responsible conduct of research"

POP HLTH 794 Biological Basis of Population Health¹ 2

Complete two approved epidemiology electives 4-6

¹ Some students must also complete this course.

Responsible Conduct of Research courses

Code	Title	Credits
MED HIST 545	Ethical and Regulatory Issues in Clinical Investigation (Offered in Fall. MED HIST 545 does not fulfill all the NIH requirements for training in the responsible conduct of research for certain T and F awards.)	1
NURSING 802	Ethics and the Responsible Conduct of Research (Offered in Spring)	1
SURG SCI 812	Research Ethics and Career Development	2
OBS&GYN 955	Responsible Conduct of Research for Biomedical Graduate Students (Offered in Fall)	2
OBS&GYN 956	Advanced Responsible Conduct of Research for Biomedical Students (Offered in Spring)	1

Other courses may be substituted as approved by the advisor and director of grad studies

Epidemiology Electives

Code	Title	Credits
POP HLTH 650	Special Topics (Topic: Environ. Health Epidemiology)	1-6
POP HLTH/NUTR SCI 621	Introduction to Nutritional Epidemiology	1
POP HLTH 713	Epidemiology of HIV/AIDS	1
POP HLTH 750	Cancer Epidemiology	2-3
POP HLTH 780	Public Health: Principles and Practice	3
POP HLTH 786	Social and Behavioral Sciences for Public Health	3
POP HLTH/M&ENVTOX 789	Principles of Environmental Health: A Systems Thinking Approach	3
POP HLTH/KINES 791	Physical Activity Epidemiology	3
POP HLTH 801	Epidemiology of Infectious Diseases	3
POP HLTH 805	Advanced Epidemiology: Causal Inference in Epidemiological Studies	3
POP HLTH 806	Advanced Epidemiology: Practice of Epidemiology	3

POP HLTH/ OBS&GYN 807	Reproductive and Perinatal Epidemiology	2
POP HLTH 847	Cardiovascular Epidemiology	1
POP HLTH/AN SCI/ GENETICS 849	Genetic Epidemiology	3
POP HLTH/ GENETICS/ MD GENET 888	Public Health Genomics	1
POP HLTH 904	Special Topics in Epidemiology	1-3
POP HLTH/ KINES 955	Seminar - Physical Activity Epidemiology	1

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

NAMED OPTION-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://pophealth.wisc.edu/grad/academicGuide>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count a maximum of 12 credits of graduate coursework taken from other institutions as a graduate student. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW-Madison Undergraduate

No credits from a UW-Madison undergraduate degree are allowed to count toward the degree.

UW-Madison University Special

With program approval, students are allowed to count no more than 12 credits of coursework numbered 300 or above taken as a UW-Madison University Special student. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

A student not meeting guidelines for satisfactory progress will be placed on probation for one semester and will be reviewed by the steering committee following the probationary semester. Students may be dropped or allowed to continue by the committee based on review of progress during the probationary semester.

ADVISOR / COMMITTEE

All students will have a hold placed on their registration each semester. Students must meet with their advisor once each semester for academic advising to have the hold removed.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Thesis required. Approval of a written proposal for thesis research is required before beginning thesis. M.S. candidates must submit master's thesis to advisor within two years of completing all coursework.

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence.

OTHER

n/a

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PEOPLE

Faculty: Professors Durkin (interim chair), Cruickshanks, Gangnon, Kanarek, Mullahy, Oliver, Palta, Patz, Remington, M. Smith, Trentham-Dietz, Wolfe; Associate Professors Astor, Bautista, Ehrenthal, Engelman, Peppard, Sethi, Vanness; Assistant Professors M. Burns, Malecki

POPULATION HEALTH, PH.D.

The Department of Population Health Sciences, part of the School of Medicine and Public Health, strives to provide leadership in the emerging, integrative field of population health. Its mission is to create, integrate, disseminate, and apply knowledge promoting the most efficient, equitable, and effective possible use of resources to maintain and improve the health of populations.

The department offers two graduate degree programs: an M.S. and a Ph.D. in population health and an M.S. and Ph.D. in epidemiology. The M.S and Ph.D in Population Health can also be taken with an available named option in Epidemiology (p. 1199).

The research-oriented degree programs are designed to provide rigorous, interdisciplinary training to develop students' abilities to synthesize knowledge and skills needed to address today's health-related problems. Methodological and analytical training is grounded in biostatistics, epidemiology, and health services research, but also emphasizes methods employed in the social sciences and econometrics that contribute to the study of health in populations. While the program is based on a sequence of core courses, students, in consultation with their major professor, have the flexibility to design advanced study and research that best prepares them for their chosen area of interest.

Individuals choose this program because of its innovative approach, strong research focus, and personal attention to students. It is an ideal option for those considering a broad array of fields including epidemiology, public health, health policy, health economics, health

services research, environmental health, industrial engineering, demography, and more. UW–Madison ranks as one of the most prolific research universities in the world, consistently placing in the top five among American public universities for research expenditures. The program's interdisciplinary focus allows students the flexibility to work with a wide array of research/faculty on campus. For instance, program faculty include members from a number of other departments such as business, family medicine, industrial engineering, law, medical history and bioethics, medicine, nursing, ophthalmology, public affairs, sociology, and veterinary medicine. The multidisciplinary faculty coupled with the diverse backgrounds of the students provides a rich and stimulating training environment.

Faculty, staff, and students in the Department of Population Health Sciences engage in a wide variety of epidemiological and health services world-class research projects to understand determinants of health and health problems in populations, to analyze public and clinical health policies, and to improve the effectiveness and efficiency of healthcare. Research topics may include (but are not limited to) chronic, infectious, and environmental disease epidemiology; public health; studies of medical outcomes; health economics; maternal and childhood health; the determinants and measurement of population health status; and health administration and policy. These multidisciplinary research programs may include (but are not limited to) the study the effects and interactions of genetic traits; biologic and metabolic processes; pathogens; pollutants; lifestyles; behaviors; economic social and physical environments; and public health and health care systems on the health of populations. Methods employed involve developing and maintaining long term cohort studies, disease registries, population surveys, and retrospective analyses of large observational databases. Researchers in the department also work to advance methodology in health economics, population health evaluation, and statistical analyses.

For more information, see the graduate program Academic Guide (<https://pophealth.wisc.edu/grad/academicGuide>).

ADMISSIONS

Applications are welcome from students with diverse academic backgrounds. Students with strong academic preparation in the biological/medical sciences, quantitative analysis, and/or population health related social sciences are strongly encouraged to apply. Historically, many applicants who have succeeded in our program have come to the program with backgrounds in fields as diverse as microbiology, genetics, nutritional sciences, medicine, nursing, pharmacy, veterinary medicine, environmental sciences, political sciences, business, sociology, education, engineering, psychology, and economics.

New students are admitted to start in the fall semester of each school year. Applications are due by January 15 of each year. Late applications are not accepted.

Minimum requirements are:

1. Applicants must fulfill all Graduate School requirements.
2. Applicants must have an undergraduate degree with a grade point average of 3.0 (on a 4.0 scale). Successful applicants generally have GPAs well above 3.0.
3. GRE scores no more than five years old are required for admission. Applicants with professional degrees may substitute their scores for the entrance exam that was required for the degree (e.g., MCAT,

LSAT), if taken within the last 5 years. For more information on the GRE, see this link (<http://www.ets.org/gre>).

4. Applicants whose native language and language of study is not English must submit official TOEFL scores. Scores must be no more than five years old at the start of the semester for which an applicant is applying. Further details are available on the Graduate School website (<http://grad.wisc.edu/admissions/requirements>). Note that the minimum test scores for the program are higher than those required by the Graduate School. Students can submit scores for the TOEFL or the IELTS exam. For the Test of English as a Foreign Language (TOEFL (<http://www.toefl.org>)), a minimum score of 580 (written), 237 (computer-based), or 92 (Internet-based) or above is absolutely required. For the International English Language Testing System (IELTS (<http://www.ielts.org>)), a minimum score of 7 is required. Use ETS institution code 1846.
5. At least one semester of advanced quantitative preparation (calculus is strongly preferred) with a grade of "B" or better.
6. A personal statement is required.
7. Three letters of recommendation are to be submitted electronically.

Upon entry to the graduate programs, students are matched with a faculty advisor. Faculty advisors helps students hone their interests, assists with identifying research projects, provide support for career development, and link students to the greater campus community. Students have the benefit of regular dialogues with faculty members. Seminars and integrated discussion groups allow for increased interaction with core faculty and community lecturers. Finally, the work of students is valued as evidenced by their entries in the annual department poster session, participation in public health symposia, authorship of publications, and involvement in community/research projects.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Students admitted to our degree programs are automatically considered for any available scholarships, traineeships, or graduate assistant positions in the department. The most common forms of funding support for our students are assistantships, traineeships, and fellowships.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	Yes	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 51 credits

Minimum Residence Credit Requirement 39 credits

Minimum Graduate Coursework Requirement 100% of all coursework taken as a graduate student must be in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.

Overall Graduate GPA Requirement Students must maintain a cumulative GPA of at least 3.25 in all graduate work (including transfer credits) unless conditions for probationary status require higher grades. Students must also maintain a cumulative GPA of 3.25 or better in all coursework completed while enrolled in the population health graduate program. No grade of BC or lower in epidemiology required courses will be accepted for the degree.

Other Grade Requirements Maintain no more than 6 credits of Incomplete (I) grades during any semester.

Assessments and Examinations Full-time students have up until the end of their third year to pass the qualifying exam and their first sitting must occur no later than the end of their second year. Part-time students are expected to pass the exam before the end of their fourth year (regardless of whether the student is continuously enrolled) and their first sitting must occur no later than the end of their third year.

Language Requirements No language requirements.

Doctoral Minor/Breadth Requirements All doctoral students are required to complete a 10-credit minor.

REQUIRED COURSES

Code	Title	Credits
POP HLTH/B M I 451	Introduction to SAS Programming for Population Health	2
POP HLTH/B M I 551	Introduction to Biostatistics for Population Health	3
POP HLTH/B M I 552	Regression Methods for Population Health	3
POP HLTH/B M I 651	Advanced Regression Methods for Population Health	3
POP HLTH 795	Principles of Population Health Sciences	1-3
POP HLTH 796	Introduction to Health Services Research	3
POP HLTH/SOC 797	Introduction to Epidemiology	3
POP HLTH 798	Epidemiologic Methods	3
POP HLTH 820	Graduate Research Seminar	1
Select a minimum of 1 credit of course work in "the responsible conduct of research"		
POP HLTH 794	Biological Basis of Population Health ¹	2

¹ Some students must complete this course.

Responsible Conduct of Research courses

Code	Title	Credits
MED HIST 545	Ethical and Regulatory Issues in Clinical Investigation (Offered in Fall. MED HIST 545 does not fulfill all the NIH requirements for training in the responsible conduct of research for certain T and F awards.)	1
NURSING 802	Ethics and the Responsible Conduct of Research (Offered in Spring)	1
SURG SCI 812	Research Ethics and Career Development	2
OBS&GYN 955	Responsible Conduct of Research for Biomedical Graduate Students (Offered in Fall)	2

OBS&GYN 956 Advanced Responsible Conduct of Research for Biomedical Students (Offered in Spring)

1

Other courses may be substituted as approved by the advisor and director of grad studies

NAMED OPTIONS (SUB-MAJORS)

A named option is a formally documented sub-major within an academic major program. Named options appear on the transcript with degree conferral.

- Population Health: Epidemiology, Ph.D. (p. 1199)

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://pophealth.wisc.edu/grad/academicGuide>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count a maximum of 12 credits of graduate coursework taken from other institutions as a graduate student. Coursework earned five or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

With program approval, students are allowed to count no more than 12 credits of coursework numbered 300 or above taken as a UW–Madison University Special student. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

PROBATION

A student not meeting guidelines for satisfactory progress will be placed on probation for one semester and will be reviewed by the steering committee following the probationary semester. Students may be dropped or allowed to continue by the committee based on review of progress during the probationary semester.

ADVISOR / COMMITTEE

All students will have a hold placed on their registration each semester. Students must meet with their advisor once each semester for academic advising to have the hold removed.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Dissertation required. Doctoral students have a maximum of five years from the date of passing the preliminary examination to take the final oral examination and deposit the dissertation.

Doctoral degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence.

OTHER

n/a

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Articulate research problems, potentials, and limits with respect to theory, knowledge, and practice of Population Health, based on understanding of its health services, health assessment, microeconomic, biostatistical and epidemiologic foundations.
2. Assemble, evaluate and synthesize evidence from literature and data sources to formulate ideas, concepts, designs, and/or techniques beyond the current boundaries of knowledge within Population Health.
3. Demonstrate breadth of knowledge of Population Health in its subject matter, historical and social context.
4. Create research that makes a substantive contribution to the knowledge base of Population Health.
5. Develop mastery of scholarship in Population Health relevant to academia, for-profit and non-profit organization and/or government.
6. Communicate complex ideas both in writing and orally in a clear and understandable manner.
7. Recognize and apply principles of ethical professional conduct in their scholarship.

PEOPLE

Faculty: Professors Durkin (interim chair), Cruickshanks, Gangnon, Kanarek, Mullahy, Oliver, Palta, Patz, Remington, M. Smith, Trentham-Dietz, Wolfe; Associate Professors Astor, Bautista, Ehrenthal, Engelman, Peppard, Sethi, Vanness; Assistant Professors M. Burns, Malecki

POPULATION HEALTH: EPIDEMIOLOGY, PH.D.

This is a named option within the Population Health Ph.D. (p. 1195)

ADMISSIONS

Applications are welcome from students with diverse academic backgrounds. Students with strong academic preparation in the biological/medical sciences, quantitative analysis, and/or population health related social sciences are strongly encouraged to apply. Historically, many applicants who have succeeded in our program have come to the program with backgrounds in fields as diverse as microbiology, genetics, nutritional sciences, medicine, nursing, pharmacy, veterinary medicine, environmental sciences, political sciences, business, sociology, education, engineering, psychology, and economics.

New students are admitted to start in the fall semester of each school year. Applications are due by January 15 of each year. Late applications are not accepted.

Minimum requirements are:

1. Applicants must fulfill all Graduate School requirements.
2. Applicants must have an undergraduate degree with a grade point average of 3.0 (on a 4.0 scale). Successful applicants generally have GPAs well above 3.0.
3. GRE scores no more than five years old are required for admission. Applicants with professional degrees may substitute their scores for the entrance exam that was required for the degree (e.g., MCAT, LSAT), if taken within the last 5 years. For more information on the GRE, see this link (<http://www.ets.org/gre>).
4. Applicants whose native language and language of study is not English must submit official TOEFL scores. Scores must be no more than five years old at the start of the semester for which an applicant is applying. Further details are available on the Graduate School website (<http://grad.wisc.edu/admissions/requirements>). Note that the minimum test scores for the program are higher than those required by the Graduate School. Students can submit scores for the TOEFL or the IELTS exam. For the Test of English as a Foreign Language (TOEFL (<http://www.toefl.org>)), a minimum score of 580 (written), 237 (computer-based), or 92 (Internet-based) or above is absolutely required. For the International English Language Testing System (IELTS (<http://www.ielts.org>)), a minimum score of 7 is required. Use ETS institution code 1846.
5. At least one semester of advanced quantitative preparation (calculus is strongly preferred) with a grade of "B" or better.
6. A personal statement is required.
7. Three letters of recommendation are to be submitted electronically.

Upon entry to the graduate programs, students are matched with a faculty advisor. Faculty advisors helps students hone their interests, assists with identifying research projects, provide support for career development, and link students to the greater campus community. Students have the benefit of regular dialogues with faculty members. Seminars and integrated discussion groups allow for increased interaction with core faculty and community lecturers. Finally, the work of students is valued as evidenced by their entries in the annual department

poster session, participation in public health symposia, authorship of publications, and involvement in community/research projects.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Students admitted to our degree programs are automatically considered for any available scholarships, traineeships, or graduate assistant positions in the department. The most common forms of funding support for our students are assistantships, traineeships, and fellowships.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	Yes	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement	51 credits
Minimum Residence Credit Requirement	39 credits
Minimum Graduate Coursework Requirement	100% of all coursework taken as a graduate student must be in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle).
Overall Graduate GPA Requirement	Students must maintain a cumulative GPA of at least 3.25 in all graduate work (including transfer credits) unless conditions for probationary status require higher grades. Students must also maintain a cumulative GPA of 3.25 or better in all coursework completed while enrolled in the population health graduate program. No grade of BC or lower in epidemiology required courses will be accepted for the degree.
Other Grade Requirements	Ph.D. candidates should maintain a 3.5 GPA in all core curriculum courses and may not have any more than two Incompletes on their record at any one time. Maintain no more than 6 credits of Incomplete (I) grades during any semester.
Assessments and Examinations	Full-time students have up until the end of their third year to pass the qualifying exam and their first sitting must occur no later than the end of their second year. Part-time students are expected to pass the exam before the end of their fourth year (regardless of whether the student is continuously enrolled) and their first sitting must occur no later than the end of their third year.
Language Requirements	No language requirements.
Doctoral Minor/Breadth Requirements	All doctoral students are required to complete a 10-credit minor.

REQUIRED COURSES

Code	Title	Credits
POP HLTH/B M I 451	Introduction to SAS Programming for Population Health	2
POP HLTH/B M I 551	Introduction to Biostatistics for Population Health	3
POP HLTH/B M I 552	Regression Methods for Population Health	3
POP HLTH/B M I 651	Advanced Regression Methods for Population Health	3
POP HLTH 795	Principles of Population Health Sciences	1-3
POP HLTH 796	Introduction to Health Services Research	3

POP HLTH/SOC 797	Introduction to Epidemiology	3
POP HLTH 798	Epidemiologic Methods	3
POP HLTH 820	Graduate Research Seminar	1
POP HLTH 805	Advanced Epidemiology: Causal Inference in Epidemiological Studies	3
or POP HLTH 806	Advanced Epidemiology: Practice of Epidemiology	
Select a minimum of 1 credit of course work in "the responsible conduct of research"		1
POP HLTH 794	Biological Basis of Population Health ¹	2
Complete three approved epidemiology electives		9
Total Credits		37-39

¹ Some students must complete this course.

Responsible Conduct of Research courses

Code	Title	Credits
MED HIST 545	Ethical and Regulatory Issues in Clinical Investigation (Offered in Fall. MED HIST 545 does not fulfill all the NIH requirements for training in the responsible conduct of research for certain T and F awards.)	1
NURSING 802	Ethics and the Responsible Conduct of Research (Offered in Spring)	1
OBS&GYN 955	Responsible Conduct of Research for Biomedical Graduate Students (Offered in Fall)	2
OBS&GYN 956	Advanced Responsible Conduct of Research for Biomedical Students (Offered in Spring)	1

Other courses may be substituted as approved by the advisor and the director of graduate studies.

Epidemiology Electives

Code	Title	Credits
POP HLTH/ NUTR SCI 621	Introduction to Nutritional Epidemiology	1
POP HLTH 713	Epidemiology of HIV/AIDS	1
POP HLTH 750	Cancer Epidemiology	2-3
POP HLTH 780	Public Health: Principles and Practice	3
POP HLTH 786	Social and Behavioral Sciences for Public Health	3
POP HLTH/ M&ENVTOX 789	Principles of Environmental Health: A Systems Thinking Approach	3
POP HLTH/ KINES 791	Physical Activity Epidemiology	3
POP HLTH 801	Epidemiology of Infectious Diseases	3
POP HLTH 805	Advanced Epidemiology: Causal Inference in Epidemiological Studies	3
POP HLTH 806	Advanced Epidemiology: Practice of Epidemiology	3

POP HLTH 847	Cardiovascular Epidemiology	1
POP HLTH/AN SCI/ GENETICS 849	Genetic Epidemiology	3
POP HLTH/ GENETICS/ MD GENET 888	Public Health Genomics	1
POP HLTH 904	Special Topics in Epidemiology	1-3
POP HLTH/ KINES 955	Seminar - Physical Activity Epidemiology	1

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

NAMED OPTION-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://pophealth.wisc.edu/grad/academicGuide>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count a maximum of 12 credits of graduate coursework taken from other institutions as a graduate student. Coursework earned five or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW-Madison Undergraduate

No credits from a UW-Madison undergraduate degree are allowed to count toward the degree.

UW-Madison University Special

With program approval, students are allowed to count no more than 12 credits of coursework numbered 300 or above taken as a UW-Madison University Special student. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

PROBATION

A student not meeting guidelines for satisfactory progress will be placed on probation for one semester and will be reviewed by the steering committee following the probationary semester. Students may be dropped or allowed to continue by the committee based on review of progress during the probationary semester.

ADVISOR / COMMITTEE

All students will have a hold placed on their registration each semester. Students must meet with their advisor once each semester for academic advising to have the hold removed.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Dissertation required. Doctoral students have a maximum of five years from the date of passing the preliminary examination to take the final oral examination and deposit the dissertation.

Doctoral degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence.

OTHER

n/a

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PEOPLE

Faculty: Professors Durkin (interim chair), Cruickshanks, Gangnon, Kanarek, Mullahy, Oliver, Palta, Patz, Remington, M. Smith, Trentham-Dietz, Wolfe; Associate Professors Astor, Bautista, Ehrental, Engelman, Peppard, Sethi, Vanness; Assistant Professors M. Burns, Malecki

PSYCHOLOGY

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Psychology, Doctoral Minor (p. 1202)
- Psychology, M.A. (p. 1202)
- Psychology, M.S. (p. 1204)
- Psychology, Ph.D. (p. 1206)

PEOPLE

Faculty: Professors Goldsmith (chair), Abramson, Alibali, A. Auger, Berridge, Brauer, Coe, Curtin, Davidson, Devine, Gernsbacher, Gooding, Harackiewicz, Hyde, Jenison, MacDonald, Marler, Miyamoto, Niedenthal, Pollak, Postle, Rogers, Rosengren, Ryff, Saffran, Seidenberg; Associate Professors Bennett, Lupyan, Rokers, Shutts; Assistant Professors Austerweil, Green, Li, Saalman, Schloss, Simmering. Affiliated Faculty: Bakshi, Bolt, Dilworth-Bart, Edwards, Ellis-Weismer, Gammie, Hermann, Herringa, Johnson, Kalin, Kalish, Koenigs, Litovsky, Lutfi, MacLean, Matthews, Nathan, Nitschke, Piper, Plante, Populin, Ritters, Sanchez, Schneider

PSYCHOLOGY, DOCTORAL MINOR

The Department of Psychology offers broad training aimed at better understanding human behavior, both typical and atypical. At the graduate level, the department provides training in five key areas in the field of psychological science: biological, clinical, cognitive, developmental, and social and personality. The primary goal is to develop critical thinking as it relates to interpretation of experimental observations. This includes an emphasis on quantitative tools used to analyze experimental data.

ADMISSIONS

Please contact the graduate program coordinator at gradinfo@psych.wisc.edu or 608-262-2079.

REQUIREMENTS

Nine (9) credits of graduate-level coursework. Proseminars and research credits do not count toward the minor.

PEOPLE

Faculty: Professors Goldsmith (chair), Abramson, Alibali, A. Auger, Berridge, Brauer, Coe, Curtin, Davidson, Devine, Gernsbacher, Gooding, Harackiewicz, Hyde, Jenison, MacDonald, Marler, Miyamoto, Niedenthal, Pollak, Postle, Rogers, Rosengren, Ryff, Saffran, Seidenberg; Associate Professors Bennett, Lupyan, Rokers, Shutts; Assistant Professors Austerweil, Green, Li, Saalman, Schloss, Simmering. Affiliated Faculty: Bakshi, Bolt, Dilworth-Bart, Edwards, Ellis-Weismer, Gammie, Hermann, Herringa, Johnson, Kalin, Kalish, Koenigs, Litovsky, Lutfi, MacLean, Matthews, Nathan, Nitschke, Piper, Plante, Populin, Ritters, Sanchez, Schneider

PSYCHOLOGY, M.A.

The Department of Psychology has fostered excellence in research and scholarship for more than 100 years. The department provides graduate students with the best available training to prepare them for a variety of professional careers in academic, clinical, research, and other settings. Emphasis is on both extensive academic training in general psychology and intensive research training in the student's area of concentration.

The department expects students to become creative scientists and to exhibit an early and continuing commitment to research and scholarship. All students initiate a first-year research project and present the results to the entire department in the fall of the second year. Typically, students are admitted for graduate study in psychology only for the Ph.D. program; however, students admitted to psychology may obtain a master's degree after they have completed their first-year research project if they find it necessary to have a degree as formal evidence of progress toward the Ph.D.

Faculty members and graduate students have many affiliations with other departments, institutes, and training programs: Institute on Aging, Waisman Center on Mental Retardation and Human Development, Wisconsin Regional Primate Research Center, Health Emotions Center, Neuroscience Training Program, Keck Neuroimaging Center, Hearing Training Program, Women's Studies Research Center, Institute for

Research on Poverty, NSF National Consortium on Violence Research, Mass Communications Research Center, and Survey Research Laboratory. There are strong ties to the departments of Anatomy, Anthropology, Communicative Disorders, Educational Psychology, Entomology, Forest and Wildlife Ecology, Medical Microbiology and Immunology, Industrial Engineering, Ophthalmology, Psychiatry, Sociology, and Zoology.

FACILITIES

The department has an extraordinary array of research facilities. Virtually all laboratories are fully computer controlled, and the department's general purpose computing facilities are freely available to all graduate students. The Brogden Building and the Harlow Primate Laboratory have special facilities for housing animals, as well as for behavioral, pharmacological, anatomical, immunological, and physiological studies. The department is well-equipped for studies of visual, auditory, and language perception and other areas of cognitive psychology. In addition, the Psychology Department Research and Training Clinic is housed in the Brogden Building. See Research Labs (<http://psych.wisc.edu/research-centers>) for further information about individual faculty research labs and facilities. Connections with other departments and research institutes on campus (e.g., W.M. Keck Laboratory for Functional Brain Imaging and Behavior, and others) have been described above.

ADMISSIONS

This master's program is offered for work leading to the Ph.D. Students may not apply directly for the master's, and should instead see the admissions information for the Ph.D (p. 1206).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses

and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules.

Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum 30 credits

Credit Requirement

Minimum 16 credits

Residence Credit Requirement

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements

The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Contact the program for information on required assessments and examinations.

Language Requirements Contact the program for information on any language requirements.

REQUIRED COURSES

Students are required to take two semesters of statistics/methods (PSYCH 610 and PSYCH 710) and six additional courses. Two of the six additional courses should be outside the student's area of research expertise. Students must also complete a required First-Year Project. Students must register for and attend a Proseminar meeting each academic year semester (fall/spring) during their first three years. Students are encouraged to continue to register for and attend a proseminar in later years while in residence. Students must reach 30 credits to receive the master's.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<http://psych.wisc.edu/graduate-program/student-handbook>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

Applying prior coursework toward the graduate degree is allowed only in exceptional circumstances. In total, only 6 credits maximum may be applied from prior coursework, including any prior coursework from graduate work from other institutions, from a UW–Madison undergraduate degree or from the UW–Madison University Special career. Coursework earned five or more years prior to admission to the program may not be used to satisfy master's degree requirements.

UW–Madison Undergraduate

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UW–Madison University Special

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PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree,

the Graduate School expects them to meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

12 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

n/a

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Develop a broad understanding of the field of psychology.
2. Develop a proficiency in statistical analyses relevant to psychological research.
3. Acquire basic understanding in experimental design.
4. Develop literature research and critical thinking skills used in psychological research and teaching.
5. Develop skills for oral and written communication of experimental findings.
6. Develop literature research and critical thinking skills used in psychological research and teaching.

PEOPLE

Faculty: Professors Goldsmith (chair), Abramson, Alibali, A. Auger, Berridge, Brauer, Coe, Curtin, Davidson, Devine, Gernsbacher, Gooding, Harackiewicz, Hyde, Jenison, MacDonald, Marler, Miyamoto, Niedenthal, Pollak, Postle, Rogers, Rosengren, Ryff, Saffran, Seidenberg; Associate Professors Bennett, Lupyan, Rokers, Shutts; Assistant Professors Austerweil, Green, Li, Saalman, Schloss, Simmering. Affiliated Faculty: Bakshi, Bolt, Dilworth-Bart, Edwards, Ellis-Weismer, Gammie, Hermann,

Herringa, Johnson, Kalin, Kalish, Koenigs, Litovsky, Lutfi, MacLean, Matthews, Nathan, Nitschke, Piper, Plante, Populin, Ritters, Sanchez, Schneider

PSYCHOLOGY, M.S.

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Minimum Residence Credit Requirement	16 credits

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OTHER

n/a

PROFESSIONAL DEVELOPMENT**GRADUATE SCHOOL RESOURCES**

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LEARNING OUTCOMES

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4. Develop literature research and critical thinking skills used in psychological research and teaching.
5. Develop skills for oral and written communication of experimental findings.
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PSYCHOLOGY, PH.D.

Psychology offers six areas of concentration (known as area groups): biological, clinical, cognitive and cognitive neuroscience, developmental, perception, and social and personality. Although there is a good deal of collaboration and interaction across groups, each area of concentration has its own requirements for graduate study and students are typically admitted into one of these areas of concentration.

Although most incoming graduate students' interests fall within these six areas of concentration, some do not. That some students' interests cut across disciplinary area groups and/or interface with other programs on campus is to be expected in a top-notch department because the boundaries of psychology itself are in flux. An innovative feature of the program is the Individualized Graduate Major designed for those graduate students who do not find a niche in the current area group structure and, instead, wish to cross area group lines and/or incorporate substantial training from other programs in their psychology graduate work. It is important to emphasize that the Individualized Graduate Major leads to a psychology Ph.D. and is not appropriate for students whose graduate study does not emphasize psychological science.

Such students are advised to pursue a Ph.D. in another program or a committee degree.

Faculty members and graduate students have many affiliations with other departments, institutes, and training programs: Institute on Aging, Waisman Center on Mental Retardation and Human Development, Wisconsin Regional Primate Research Center, Health Emotions Center, Neuroscience Training Program, Keck Neuroimaging Center, Hearing Training Program, Women's Studies Research Center, Institute for Research on Poverty, NSF National Consortium on Violence Research, Mass Communications Research Center, and Survey Research Laboratory. There are strong ties to the departments of Anatomy, Anthropology, Communicative Disorders, Educational Psychology, Entomology, Forest and Wildlife Ecology, Medical Microbiology and Immunology, Industrial Engineering, Ophthalmology, Psychiatry, Sociology, and Zoology.

BIOLOGY OF BRAIN AND BEHAVIOR

The *biological psychology* area encompasses the subdisciplines of behavioral neuroscience and animal behavior. Students sponsored by faculty in this area are trained in theory and methods required for understanding the biological bases of behavior. The doctoral track in behavioral neuroscience provides research training in specific methods and techniques needed to assess brain and peripheral physiological mechanisms. Topic areas investigated by program faculty include psychoneuroimmunology, hormone-behavior relationships, neurobiology of stress and arousal, sensory processes, and the neural organization of the cerebral cortex. Age-related changes during development, and the impact of stress on health and behavior are also important foci. Students learn modern surgical, neuroanatomical, neurophysiological, neuroimaging (PET, MRI), immunohistochemical, pharmacological, and behavioral techniques. Training in hormone and immune assays, or cellular recording, are also provided when required for the student's research. Conceptual issues, such as experimental design, and the relevance to human clinical and social conditions are emphasized.

Students in the program can also pursue training in theories and methodologies involved in the study of animal behavior. Coursework and research provide a unique interdisciplinary experience with a strong emphasis on evolutionary/ecological principles and proximate mechanisms, including communication and the role of hormones and social relationships underlying the expression of behavior. The program goal is to train outstanding students with a special interest in integrating knowledge across traditional discipline lines.

Many facilities are available for graduate training, including the department's Harlow Primate Laboratory, internationally known for its studies of primate development and learning, and the Callitrichid Behavior Laboratory, renowned for research on communication, reproduction, and conservation. In addition, students benefit from the Wisconsin Regional Primate Research Center with its large rhesus monkey and marmoset colonies. Within the Brogden Psychology Building, research programs utilize many other small animal species. Well-equipped facilities are available, including surgical suites, histology, electrophysiology, endocrine, and immunology laboratories.

The program continues to grow and incorporate new perspectives. Students and faculty interact and collaborate with the departments of Anthropology, Comparative Biosciences, Forest and Wildlife Ecology, and Zoology, as well as the Neurosciences Training Program, Institute on Aging, and Center for Excellence in Women's Health Research. The

university provides a diverse and stimulating academic environment for training in biological psychology.

CLINICAL PSYCHOLOGY

The training model for the UW-Madison doctoral program in clinical psychology is that of a scientist-practitioner. Based on the program's endorsement of a scientist-practitioner model, the educational plan focuses on two major and interrelated goals that integrate science and practice:

1. to produce graduates who have the requisite knowledge, skills, and experience to create and disseminate new knowledge about the processes and mechanisms underlying psychopathology; and
2. to produce graduates who have the requisite knowledge and skills for entry into the practice of professional clinical psychology and who understand and appreciate the importance of an empirical basis to clinical practice.

The program uses a mentor model for research training; applicants are admitted to the program based in part on how closely their research interests are aligned with that of current faculty. The close working relationship between the faculty mentor and the graduate student is one of the mechanisms that serves to integrate theory and research with the applied training. Coursework and practicum experiences comprise the other mechanisms that foster the integration of science and practice.

The interests of and methods utilized by faculty vary widely but all share the common goal of pursuing innovative, cutting edge analyses of major forms of psychopathology. The program also offers excellent clinical training and in the course of their tenure in the program, graduate students in clinical psychology develop expertise in both assessment and treatment of psychopathology. However the student who is not deeply committed to research and scholarship will, in all likelihood, not be satisfied with the Wisconsin Clinical Program.

During their stay, clinical graduate students complete courses in assessment, clinical research methods, and a sequence of clinical core courses covering the etiology and treatment of psychopathology, in addition to statistics/methodology courses and coursework in nonclinical areas both in and outside of the department. The required curriculum may take more than five years to complete. The clinical program is situated in a world-class department that includes area groups in biology of brain and behavior, cognitive and cognitive neuroscience, developmental, perception, and social and personality. In addition, an Emotion Training Program within the department cuts across all other area groups and is supported by an NIMH training grant. Many clinical students and faculty are involved in various aspects of the Emotion Training Program. Clinical students have access to an extensive range of opportunities through collaborations with other units on campus including the Waisman Center, an interdisciplinary research institute for developmental research; the Institute on Aging; the Waisman Laboratory for Brain Imaging and Behavior; the Department of Psychiatry; and other departments in the Medical School, College of Letters & Science, and the School of Education.

A major goal of the program is to integrate students' clinical and research activities. Students begin their clinical practicum in the Psychology Department Research and Training Clinic (<https://psych.wisc.edu/graduate-program/clinical-psychology-program/research-and-training-clinic>) during their third year in the program and typically continue such practicum training throughout the remainder of their graduate careers. An important component of clinical training is the "Small Group Practicum"

in which various clinical professors supervise practicum activities on topics related to their own areas of interest. In the summer following the third academic year, the student is appointed to a clerkship in one of the several agencies that cooperate with the department in providing practicum training. Finally, all clinical students obtain at least one full year of full-time clinical experience in an approved internship facility. Whereas many students obtain internships at various of the better-known training centers around the country, other students complete their internships at one of the excellent local sites. Virtually all clinical graduate students have received financial support while in residence in the graduate program.

COGNITIVE AND COGNITIVE NEUROSCIENCE (CCN)

The study of cognition and perception has undergone explosive growth during the past decade with exciting developments in psychology and related fields and with new techniques for studying mind and brain. The *cognitive and perceptual sciences* (CPS) area group provides a unique and stimulating graduate school experience for students interested in an interdisciplinary approach to cognition and perception. Faculty members combine expertise in cognition and perception with a broad arsenal of methods including experimental, developmental, computational, and biological approaches. This breadth in methodologies is paralleled by breadth across disciplines of communicative disorders, educational psychology, and neuroscience. Areas of exceptional strength in cognition include language development, speech perception, neural representation of language and memory, gesture, higher-level comprehension, music cognition, problem solving, and embodied cognition. Research in hearing and vision includes perceptual development, perception of complex sounds, perception of 3-D layout and auditory space, attention, and neural processing of auditory and visual objects and events. Laboratory facilities are comprehensive and fully state of the art, enhanced by unique opportunities for training in neuroimaging at the Keck Laboratory for Functional Brain Imaging and in developmental methods at the Waisman Center. The program is committed to maintaining a collegial environment in which students collaborate with faculty in developing their research programs. Graduates with a Ph.D. from the program maintain careers as university or college professors, or as researchers at public or corporate laboratories.

DEVELOPMENTAL PSYCHOLOGY

Research in the *developmental* area group focuses on the interrelationships of biological, environmental, and behavioral processes throughout the life span, and on the mechanisms and processes of change. The program emphasizes interdisciplinary studies, and allows graduate students flexibility in designing a program of study consonant with their goals and interests. One central part of the developmental program is a weekly lunch meeting, in which students and faculty present ongoing research and discuss current topics in the field. Students in the program focus on cognitive, emotional, language, perceptual, personality, social development, or relations between these areas. Within these content domains, students and faculty conduct research on both typical and atypical development, and work with individuals representing a wide range of ages, including infants, preschool and school-age children, adolescents, adults, and the elderly. Specific faculty research interests include the development of mathematical reasoning and problem solving, development of visual perception and attention, developmental behavioral genetics, gender role development,

developmental psychopathology, resiliency in adulthood and aging, and language acquisition.

Participants in research studies are drawn from an unusually wide variety of sources, including local preschools and day care centers; public, and private schools in the Madison area; the Dane County Division of Children, Youth, and Families; the Wisconsin Longitudinal Survey; University of Wisconsin Hospitals and Clinics; and the Institute on Aging. Many developmental faculty are affiliated with the Waisman Center on Human Development, which provides a database of typically developing infants and children with developmental disabilities.

SOCIAL AND PERSONALITY PSYCHOLOGY

The program is designed to train students for research on the cutting edge of the fields of *social and personality psychology*. The curriculum consists of a series of courses and seminars designed to provide students with a thorough introduction to the fields of social and personality psychology. This coursework is complemented by courses that provide the methodological and statistical skills necessary for several kinds of research. The primary emphasis is on experimental laboratory research, but training is also provided in field research, longitudinal studies, observational methods, and archival research. There are also opportunities to pursue theoretical issues in various applied areas (e.g., education, health psychology). The goal is to train students for productive academic careers in university settings. Students are provided with the opportunity to work collaboratively with one or more faculty members on a variety of research topics including: acculturation, achievement behavior, attitudes, competition, culture and cognition, emotion, goals and self-regulation, interest and intrinsic motivation, social cognition, social perception, social neuroscience, and stereotypes, prejudice and intergroup relations. Students are also encouraged to develop their own independent lines of research.

Additional resources are available to students from outside the psychology department. The social psychology program in the sociology department shares faculty members and courses with the program in psychology and offers seminars that supplement those taught in psychology. In addition, resources are provided by the Mass Communications Research Center, the Institute for Research on Poverty, and the Survey Research Laboratory.

FACILITIES

The department has an extraordinary array of research facilities. Virtually all laboratories are fully computer controlled, and the department's general purpose computing facilities are freely available to all graduate students. The Brogden Building and the Harlow Primate Laboratory have special facilities for housing animals, as well as for behavioral, pharmacological, anatomical, immunological, and physiological studies. The department is well-equipped for studies of visual, auditory, and language perception and other areas of cognitive psychology. In addition, the Psychology Department Research and Training Clinic is housed in the Brogden Building. See Research Labs (<http://psych.wisc.edu/research-centers>) for further information about individual faculty research labs and facilities. Connections with other departments and research institutes on campus (e.g., W.M. Keck Laboratory for Functional Brain Imaging and Behavior, and others) have been described above.

ADMISSIONS

An applicant is admitted into the program by an individual faculty member or by an area group (i.e., a group of faculty members associated

with a major area of concentration) and not by the department as a whole, nor by an admissions committee. Because these programs tend to be small, they may not admit students in a particular year. Applicants interested in a particular program or working with a particular faculty member should reference graduate program (<http://psych.wisc.edu/graduate-program>) on the psychology website or contact individual faculty members to determine if admissions are likely for that year.

Each faculty member and area group give preference to applicants who have a high potential for success in graduate school and who also share research interests with the prospective faculty sponsor. Applicants should consider carefully the description of faculty research interests, read several of their publications, and consult with faculty and advisors at the undergraduate institution before applying to the program. Whereas most applicants have majored in psychology, the department gives full consideration to applicants with undergraduate majors in other relevant areas.

Given its commitment to students, the Department of Psychology takes seriously its responsibility when admitting an applicant. Every piece of information is considered carefully. Students are selected on the basis of record of academic achievement, Graduate Record Exam (GRE) scores, references, evidence of motivation and ability to do research, and also the fit between faculty and student research interests.

Information regarding applications deadlines is on the program website (<http://psych.wisc.edu/graduate-program/admission-and-requirements>). Applicants should have a completed application in by the deadline to ensure full consideration. Most students admitted into the program are supported by either a research or project assistantship, teaching assistantship, or fellowship.

ADMISSION SELECTION CRITERIA

Although individual faculty members and area groups decide who will be admitted, the psychology department sets certain minimum standards that must be met by those admitted to the graduate program. These are an undergraduate grade point average (GPA) of at least 3.0 on a 4.0 scale as well as verbal and quantitative scores on the GRE that sum to at least 310.

Consideration for admission is highly competitive. The department receives approximately 400 applications each year and less than 10 percent are admitted to the program. Applicants who fall below the minimum standards set by the department may still be admitted where there is clear justification (e.g., international students or minority group students whose GRE scores may not be an indicator of potential for graduate work, or students who are below the minimum requirement in one respect but well above it in other respects).

Undergraduate research experience is highly valued in applicants to the program and greatly enhances their chances of admission. Such research experience provides an opportunity to discover whether research is of interest and provides evidence of motivation and ability to do research.

Three references are required and are read very carefully. Good letters in favor of the applicant are essential and should be provided by faculty who know the applicant fairly well. The references should provide information that will evaluate potential for graduate work beyond that revealed by GPA and GRE scores. For example, a reference from a professor who writes about a student's unique skills, research abilities, and motivation is more influential than a reference that says the student received an "A" and was "very pleasant." Thus, references from faculty the applicant has

worked with on a research project or senior thesis carry more weight in making a decision to admit.

In addition to references, grades, and Graduate Record Exam (GRE) scores, the faculty also consider carefully the personal statement. Applicants should describe in the personal statement any prior research experience and their role in that research.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Many students also receive NSF or NIH predoctoral fellowships and other awards during their course of study within the program. To support professional development, small grants fund student research and travel to present work at national conferences. The department hosts two training grants from NIH, one focused on Emotion and one focused on Language, that each support several predoctoral students.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich,

interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 60 credits

Minimum Residence Credit Requirement 40 credits

Minimum Graduate Coursework Requirement Half of degree coursework (30 credits out of 60 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Doctoral students are required to take a comprehensive preliminary/oral examination after they have cleared their record of all Incomplete and Progress grades (other than research and thesis). Deposit of the doctoral dissertation in the Graduate School is required.

Language Requirements Contact the program for information on any language requirements.

Doctoral Minor/Breadth Requirements All doctoral students are required to complete a minor.

REQUIRED COURSES

Students are required to take two semesters of statistics/methods (PSYCH 610 and PSYCH 710) and six additional courses. Two of the six additional courses should be outside the student's area of research expertise. Students must also complete a required First-Year Project. Students must register for and attend a Proseminar meeting each academic year semester (fall/spring) during their first three years. Students are encouraged to continue to register for and attend a proseminar in later years while in residence.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<http://psych.wisc.edu/graduate-program/student-handbook>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

Applying prior coursework toward the graduate degree is allowed only in exceptional circumstances. In total, only 6 credits maximum may be applied from prior coursework, including any prior coursework from graduate work from other institutions, from a UW–Madison undergraduate degree or from the UW–Madison University Special career. Coursework earned ten or more years prior to admission to the program may not be used to satisfy doctoral degree requirements.

UW–Madison Undergraduate

Applying prior coursework toward the graduate degree is allowed only in exceptional circumstances. In total, only 6 credits maximum may be applied from prior coursework, including any prior coursework from graduate work from other institutions, from a UW–Madison undergraduate degree or from the UW–Madison University Special career. Coursework earned ten or more years prior to admission to the program may not be used to satisfy doctoral degree requirements.

UW–Madison University Special

Applying prior coursework toward the graduate degree is allowed only in exceptional circumstances. In total, only 6 credits maximum may be applied from prior coursework, including any prior coursework from graduate work from other institutions, from a UW–Madison undergraduate degree or from the UW–Madison University Special career. Coursework earned ten or more years prior to admission to the program may not be used to satisfy doctoral degree requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies. An advisor generally serves as the thesis advisor. In many

cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor.

To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

12 credits

TIME CONSTRAINTS

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

OTHER

n/a

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Develop a broad understanding of the field of Psychology.
2. Develop a deep understanding of the theory and literature combined with critical thinking skills.
3. Develop a proficiency in experimental design and statistical analyses relevant to psychological research.
4. Acquire expertise in the oral and written communication of experimental findings.
5. Clinical students will receive broad training in the theory and practice of clinical psychology.

PEOPLE

Faculty: Professors Goldsmith (chair), Abramson, Alibali, A. Auger, Berridge, Brauer, Coe, Curtin, Davidson, Devine, Gernsbacher, Gooding, Harackiewicz, Hyde, Jenison, MacDonald, Marler, Miyamoto, Niedenthal, Pollak, Postle, Rogers, Rosengren, Ryff, Saffran, Seidenberg; Associate Professors Bennett, Lupyán, Rokers, Shutts; Assistant Professors

Austerweil, Green, Li, Saalman, Schloss, Simmering. Affiliated Faculty: Bakshi, Bolt, Dilworth-Bart, Edwards, Ellis-Weismer, Gammie, Hermann, Herringa, Johnson, Kalin, Kalish, Koenigs, Litovsky, Lutfi, MacLean, Matthews, Nathan, Nitschke, Piper, Plante, Populin, Ritters, Sanchez, Schneider

ACCREDITATION

Accreditation for the Clinical Psychology Concentration

American Psychological Association (<http://www.apa.org>)

Accreditation status: Accredited. Next accreditation review: 2019.

Psychological Clinical Science Accreditation System (<http://www.pcsas.org>)

Accreditation status: Accredited. Next accreditation review: 2024.

REAL ESTATE AND URBAN LAND ECONOMICS

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE PROFESSIONAL/CERTIFICATES

- Business: Real Estate and Urban Land Economics, M.S. (p. 1211)
- Business: Real Estate and Urban Land Economics, MBA (p. 1215)

PEOPLE

Faculty: Professors Yavas (chair), Malpezzi, Ortalo-Magn'e, Riddiough; Associate Professors Ghent, Quintin; Assistant Professors Diop, Luque

BUSINESS: REAL ESTATE AND URBAN LAND ECONOMICS, M.S.

Founded in 1900, the School of Business established one of the first five business programs in the nation. That entrepreneurial spirit remains strong.

As a student in the School of Business, you will find yourself inspired by peers, staff, alumni, business leaders, and world-renowned faculty who are focused, collaborative, and engaged in every aspect of the student experience. You will join a highly ranked program that equips you to meet both academic and career challenges. Employers value School of Business graduates because of the comprehensive preparation this learning environment provides. Graduates possess highly sought-after general management and specialized expertise in business.

Joining collaborative, inspiring, trustworthy, and progressive WSB alumni, Business Badgers graduate prepared to lead their organizations to success and transform the world of business. Together Forward!

NAMED OPTION IN GLOBAL REAL ESTATE (GREM)

The global real estate master (GREM) program brings together students from top international business programs and the best in real estate education to provide the unique preparation needed to become a global leader. The GREM program is designed for those who would like to work anywhere in the real estate industry. Students will learn principles of real estate, finance, and development that apply universally and also be exposed to the variety of context and opportunities the global real estate industry offers. See the program website (<https://wsb.wisc.edu/programs-degrees/grem/>) for more information.

ADMISSIONS

Students interested in Business degrees do not apply through the Graduate School application system and should instead refer to the School of Business Admissions page. (<https://wsb.wisc.edu/programs-degrees/grem/how-to-apply>)

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Requirement	30 credits
Minimum Residence Credit Requirement	16 credits
Minimum Graduate Coursework Requirement	Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (https://registrar.wisc.edu/course-guide/).
Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.
Assessments and Examinations	Contact the program for information on required assessments and examinations.
Language Requirements	Contact the program for information on any language requirements.

REQUIRED COURSES

This master's degree is earned by students on the way to earning the Ph.D. in Business. Refer to the curricular requirements for specific tracks within the Business Ph.D. (p. 213) for required courses.

NAMED OPTIONS (SUB-MAJORS)

A named option is a formally documented sub-major within an academic major program. Named options appear on the transcript with degree conferral.

- Business: Real Estate and Urban Land Economics: Global Real Estate, M.S. (p. 1214)

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Gather, process and analyze market, linkage and macroeconomic data for the purpose of forecasting real estate trends, communicating the big picture and making prudent investment decisions.
2. Understand how to optimally source capital to execute on growth and development opportunities, prepare for and manage the crises and contingencies that pervade real estate ventures, and improve efficiencies in the operation of revenue generating properties.
3. Apply appropriate structures, techniques, and processes to manage or lead a real estate group or enterprise.
4. Recognize, measure, and create value in real estate in the strict respect of all ethical and legal norms and with full awareness of their responsibility to the communities, investors, public policy makers and users they aspire to serve as real estate professionals.
5. Develop a deeper network with local, regional and international professionals to gather market data, perspectives, investment ideas and employment leads.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 9 credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

With program approval and payment of the difference in tuition (between special and graduate tuition), students are allowed to count no more than 9 credits of coursework numbered 700 or above taken as a UW–Madison University Special student. Coursework earned five or more years prior to the master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Limited scholarships are available at departments discretion based on needs. Students must produce a one- to three-page statement of need for financial aid. The department chair determines if qualified.

PEOPLE

Faculty: Professors Yavas (chair), Brennan Riddiough; Associate Professors Ghent; Assistant Professors Diop, Luque

ACCREDITATION

ACCREDITATION

AACSB International—The Association to Advance Collegiate Schools of Business (<http://www.aacsb.edu>)

Accreditation status: Accredited. Next accreditation review: 2021–2022.

BUSINESS: REAL ESTATE AND URBAN LAND ECONOMICS: GLOBAL REAL ESTATE, M.S.

This is a named option in the Business: Real Estate and Urban Land Economics M.S. (p. 1211)

ADMISSIONS

Admission consideration for the MBA program requires a four-year undergraduate degree or the equivalent, in any discipline, from an accredited institution. The School of Business seeks a minimum of two years of full-time work experience along with a strong undergraduate performance. In addition to academic credentials, GMAT scores and work experience, personal achievements, motivation, communication skills (written and oral), international exposure and recommendation letters are considered in the admission process at both the master's and doctoral levels.

Note: The Graduate Management Admission Test (GMAT), taken within five years of the starting term, is required of all applicants to the School of Business; the Graduate Record Exam (GRE) may be an acceptable alternative on a case by case basis. All applicants whose native language is not English must submit scores from the Test of English as a Foreign Language (TOEFL), the Pearson Test of English (PTE), Intensive English as a Second Language (IELTS), or show the completion of an Interlink program. A minimum iBT TOEFL score of 100 or equivalent, obtained within two years of the intended start term, is required. International applicants who have completed a degree at an institution whose primary language of instruction was English may request a waiver of this requirement on the application.

HOW TO APPLY

Students interested in Business degrees do not apply through the Graduate School application system and should instead refer to the School of Business Admissions page. (https://admissions.bus.wisc.edu/?_ga=2.47171374.802634615.1518557744-1236773262.1518557744)

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	Yes

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement All coursework must be completed in courses numbered 700 or higher.

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Contact the program for information on required assessments and examinations.

Language Requirements Contact the program for information on any language requirements.

REQUIRED COURSES

Code	Title	Credits
REAL EST 710	Real Estate Finance	3
REAL EST 715	Techniques of Real Estate Valuation	3
REAL EST/ URB R PL 720	Urban Economics	3
REAL EST 740	Real Estate Equity Investment	3
REAL EST 750	Commercial Property Development	3

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

NAMED OPTION-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 14 credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

With program approval and payment of the difference in tuition (between special and graduate tuition), students are allowed to count no more than 14 credits of coursework numbered 700 or above taken as a UW–Madison University Special student. Coursework earned five or more years prior to the master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Students are not allowed to enroll in double or dual degrees.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

BUSINESS: REAL ESTATE AND URBAN LAND ECONOMICS, MBA

Founded in 1900, the School of Business established one of the first five business programs in the nation. That entrepreneurial spirit remains strong.

As a student in the School of Business, you will find yourself inspired by peers, staff, alumni, business leaders, and world-renowned faculty who are focused, collaborative, and engaged in every aspect of the student experience. You will join a highly ranked program that equips you to meet both academic and career challenges. Employers value School of Business graduates because of the comprehensive preparation this learning environment provides. Graduates possess highly sought-after general management and specialized expertise in business.

Joining collaborative, inspiring, trustworthy, and progressive WSB alumni, Business Badgers graduate prepared to lead their organizations to success and transform the world of business. Together Forward!

Wisconsin's two-year MBA program in real estate and urban land economics offers the kind of in-depth real estate graduate education you

won't get anywhere else. World class faculty in the classroom, hands-on projects and case studies, international travel, and the unique Applied Real Estate Investment Track (AREIT) program in real estate investment trust management. You'll interact with cutting edge real estate faculty and influential alumni and other leaders in the real estate industry on the Graaskamp Center Board of Advisors. Together, they make up a powerful web that connects and complements your experience in the program and beyond. *U.S. News & World Report* ranks Wisconsin MBA real estate in the top three in the U.S. See the program website (<https://wsb.wisc.edu/programs-degrees/mba/full-time/career-specializations/real-estate>) for more information.

ADMISSIONS

Admission consideration for the MBA program requires a four-year undergraduate degree or the equivalent, in any discipline, from an accredited institution. The School of Business seeks a minimum of two years of full-time work experience along with a strong undergraduate performance. In addition to academic credentials, GMAT scores and work experience, personal achievements, motivation, communication skills (written and oral), international exposure and recommendation letters are considered in the admission process at both the master's and doctoral levels.

Note: The Graduate Management Admission Test (GMAT), taken within five years of the starting term, is required of all applicants to the School of Business; the Graduate Record Exam (GRE) may be an acceptable alternative on a case by case basis. All applicants whose native language is not English must submit scores from the Test of English as a Foreign Language (TOEFL), the Pearson Test of English (PTE), Intensive English as a Second Language (IELTS) or show the completion of an Interlink program. A minimum iBT TOEFL score of 100 or equivalent, obtained within two years of the intended start term, is required. International applicants who have completed a degree at an institution whose primary language of instruction was English may request a waiver of this requirement on the application.

HOW TO APPLY

Students interested in Business degrees do not apply through the Graduate School application system and should instead refer to the School of Business Admissions page. (<https://wsb.wisc.edu/programs-degrees/mba/full-time/admissions>)

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Prospective students should see the program website for funding information.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement	30 credits
Minimum Residence Credit Requirement	16 credits
Minimum Graduate Coursework Requirement	Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (https://registrar.wisc.edu/course-guide/).
Overall Graduate GPA Requirement	3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Contact the program for information on required assessments and examinations.

Language Requirements Contact the program for information on any language requirements.

REQUIRED COURSES

Code	Title	Credits
Year One		
<i>Fall Semester</i>		
GEN BUS 704	Data to Decisions	3
ACCT I S 700	Financial Accounting	3
FINANCE 700	Introduction to Financial Management	3
M H R 706	Leading and Working in Teams	1
MARKETNG 700	Marketing Management	3
REAL EST 710	Real Estate Finance	3
REAL EST 765	Contemporary Topics (Topic: International Real Estate)	1
<i>Spring Semester</i>		
M H R 723	Business Strategy	3
OTM 700	Operations Management	3
OTM 732	Economics for Managers	3
REAL EST 715 or FINANCE 635	Techniques of Real Estate Valuation Security Analysis	3
REAL EST 740	Real Estate Equity Investment ((non-AREIT students may take another elective instead))	3
Total Credits		32

Real Estate Track ¹

Code	Title	Credits
Year Two		
<i>Fall Semester</i>		
GEN BUS 710	Ethics, Integrity and Society	1
REAL EST/ URB R PL 720	Urban Economics	3
REAL EST 712 or REAL EST 750	Real Estate Law Commercial Property Development	3
Electives		6
<i>Spring Semester</i>		
REAL EST 712	Real Estate Law	3
REAL EST 770	Commercial Real Estate Finance	3
REAL EST 765	Contemporary Topics (Topic: International Real Estate - MIPIM trip)	1
Electives		4
Total Credits		24

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear on the transcript.

Applied Real Estate Investment Track (AREIT) ¹

Code	Title	Credits
Year Two		
<i>Fall Semester</i>		
GEN BUS 710	Ethics, Integrity and Society	1
REAL EST 799	Reading and Research-Urban Land Economics	5
REAL EST/ URB R PL 720	Urban Economics	3
Electives		6
<i>Spring Semester</i>		
REAL EST 799	Reading and Research-Urban Land Economics	2
REAL EST 715	Techniques of Real Estate Valuation	3
REAL EST 770	Commercial Real Estate Finance	3
Elective		
REAL EST 765	Contemporary Topics (Topic: MIPIM trip)	1
Elective		1
Total Credits		25

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear on the transcript.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

No credits of prior coursework are allowed to satisfy requirements.

UW-Madison Undergraduate

No credits from a UW-Madison undergraduate degree are allowed to count toward the degree.

UW-Madison University Special

No credits of prior coursework are allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Limited scholarships are available at departments discretion based on needs. Students must produce a one- to three-page statement of need for financial aid. The department chair determines if qualified.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Gather, process and analyze market, linkage and macroeconomic data for the purpose of forecasting real estate trends, communicating the big picture and making prudent investment decisions.
2. Understand how to optimally source capital to execute on growth and development opportunities, prepare for and manage the crises and contingencies that pervade real estate ventures, and improve efficiencies in the operation of revenue generating properties.
3. Apply appropriate structures, techniques, and processes to manage or lead a real estate group or enterprise.

4. Recognize, measure, and create value in real estate in the strict respect of all ethical and legal norms and with full awareness of their responsibility to the communities, investors, public policy makers and users they aspire to serve as real estate professionals.

5. Develop a deeper network with local, regional and international professionals to gather market data, perspectives, investment ideas and employment leads.

PEOPLE

Faculty: Professors Yavas (chair), Brennan Riddiough; Associate Professors Ghent; Assistant Professors Diop, Luque

ACCREDITATION

Accreditation

AACSB International—The Association to Advance Collegiate Schools of Business (<http://www.aacsb.edu>)

Accreditation status: Accredited. Next accreditation review: 2021-2022.

REHABILITATION PSYCHOLOGY AND SPECIAL EDUCATION

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Rehabilitation Counseling, M.S. (p. 1218)
- Rehabilitation Counselor Education, Doctoral Minor (p. 1221)
- Rehabilitation Counselor Education, Ph.D. (p. 1222)
- Special Education, Doctoral Minor (p. 1225)
- Special Education, M.S. (p. 1225)
- Special Education, Ph.D. (p. 1228)

PEOPLE

Faculty:

Rehabilitation Counseling and Rehabilitation Counselor Education: Professors Fong Chan, Brian Phillips, David Rosenthal, Susan Smedema, and Timothy Tansey

Special Education:

Professors Aydin Bal, Bonnie Doren, Taucia Gonzalez, Melinda Leko, Andrea Ruppard, and Kimber Wilkerson

For more information about faculty in the Rehabilitation Psychology and Special Education Department, see:

<https://rpse.education.wisc.edu/rpse/people/faculty>

REHABILITATION COUNSELING, M.S.

The M.S. degree program in Rehabilitation Counseling prepares rehabilitation counselors at the master's degree level to serve

adolescents and adults with disabilities in both private and public rehabilitation agencies and programs through counseling, assessment, job placement, case management, and advocacy.

The program's mission centers on improving the quality of life and fostering inclusion for individuals with disabilities in community settings. The range of disabilities served by graduates includes physical and psychiatric disabilities, alcohol and drug abuse, traumatic brain injury and other neurological impairments, learning and intellectual disabilities, sensory disabilities, and aging. The program places a strong emphasis on field experiences including three semesters of practical training in supervised placements in rehabilitation counseling settings. Students benefit from opportunities to take courses from faculty in both the rehabilitation counseling and counseling psychology programs to develop expertise in counseling skills, foundations psycho-social aspects of disability, assessment techniques, socio-cultural aspects of counseling, and career development, among other topics.

As part of one of the nation's top schools of education and most highly ranked universities in the world, students have access to interdisciplinary perspectives, a wide range of professional development resources, and emerging research in the field of rehabilitation counseling. The quality and recognition of the program is further evidenced by its current *U.S. News & World Report* number one ranking among all rehabilitation counseling programs in the U.S.

The M.S. program curriculum is aligned with the requirements for accreditation outlined by the Council for the Accreditation of Counseling and Related Programs (CACREP). Graduates also meet the educational qualifications for the national Certified Rehabilitation Counselor (CRC) credential as well as the educational requirements to apply for a training license as a professional counselor in the state of Wisconsin (Licensed Professional Counselor). Please visit the program website for updates on CACREP accreditation.

Financial support is available to some qualified graduate students and may include scholarships, traineeships, teaching assistantships, and research/project assistantships.

Employment opportunities following graduation include nonprofit rehabilitation programs, state vocational rehabilitation programs, private rehabilitation and employment support agencies, mental health agencies, substance abuse treatment agencies, corrections settings, and educational settings including high schools, colleges and universities.

ADMISSIONS

Complete application information is available on the program website (<http://rpse.education.wisc.edu/rpse/programs/graduate-degree-programs/rehabilitation-psychology-graduate-program/application-admission-m-s-m-a>). Applicants are expected to meet general requirements for admission to the Graduate School. The following factors will be considered by the admissions committee: aptitude for graduate-level study, relevance of prior academic work and career goals, stated goals for graduate study, employment history, potential success in forming effective counseling relationships, respect for cultural differences, evidence of writing and research skill, and letters of recommendation.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements

of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Financial support is available to qualified graduate students and may include scholarships, traineeships, teaching assistantships, and research/project assistantships. For more information about funding opportunities, see this link (<https://rpse.education.wisc.edu/rpse/programs/funding-and-financial-aid>).

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules.

Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum 60 credits

Credit Requirement

Minimum 16 credits

Residence Credit Requirement

Minimum 30 credits must be in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide Requirement (<https://registrar.wisc.edu/course-guide/>).

Overall 3.00 GPA required.

Graduate GPA Requirement

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Master's comprehensive exam successful completion of the Certified Rehabilitation Counselor (CRC) national certification exam or a traditional written comprehensive exam.

Language Requirements No language requirements.

REQUIRED COURSES

60 graduate degree credits to include:

Code	Title	Credits
Required Core Academic Coursework in Rehabilitation Counseling		
RP & SE 540	Assessment of Adults with Disabilities	3
RP & SE 550	Rehabilitation Psychology-Medical Aspects	3
RP & SE 660	Special Topics (Foundations of Rehabilitation Counseling)	3
RP & SE 660	Special Topics (Diagnosis and Treatment Planning)	3
RP & SE 700	Seminar: Rehabilitation Psychology Research	3
RP & SE 721	Addictions Counseling	3
RP & SE 725	Career Counseling and Job Placement for People with Disabilities	3
RP & SE 810	Rehabilitation Counseling Psychology-Techniques	3
RP & SE 820	Rehabilitation Counseling Psychology-Theories and Issues	3
RP & SE 840	Rehabilitation Counseling Psychology-Group Procedures	3
COUN PSY/ED PSYCH 723	Developmental Processes Across the Life Span	3
COUN PSY/ RP & SE 730	Professional Counseling Orientation	3

COUN PSY 740	Abnormal Behavior and Psychopathology	3
COUN PSY 777	Crisis and Trauma Counseling	3
COUN PSY 825	Counseling Psychology Techniques With Families	3
COUN PSY 860	Social and Cultural Foundations of Counseling	3
Required Clinical Instruction in Rehabilitation Counseling		
RP & SE 880	Rehabilitation Counseling Psychology-Supervised Practicum I	3
RP & SE 890	Rehabilitation Counseling Psychology-Supervised Practicum II	3
RP & SE 910	Rehabilitation Counseling Psychology-Internship	6-12
Total Credits		60-66

POLICIES**GRADUATE SCHOOL POLICIES**

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

**MAJOR-SPECIFIC POLICIES
GRADUATE PROGRAM HANDBOOK**

The Graduate Program Handbook (<https://rpse.education.wisc.edu/rpse/programs/graduate-degree-programs/rehabilitation-psychology-graduate-program>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK**Graduate Work from Other Institutions**

Students are allowed to count graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW-Madison Undergraduate

With program approval, students are allowed to count 7 credits of coursework numbered 300 level or above from a UW-Madison undergraduate degree toward the graduate degree. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW-Madison University Special

With program approval, students are allowed to count no more than 15 credits of coursework numbered 300 or above taken as a UW-Madison University Special student. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course

(300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Students are assigned a faculty advisor upon admission to the program.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who are absent for five or more years will not be given credit for prior work.

OTHER

n/a

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Demonstrate mastery of the knowledge domains of the rehabilitation counseling profession including understanding the theoretical and historical foundations of the field of rehabilitation counseling and the ability to identify current best practices and challenges in the field. Specific knowledge domains are outlined by the rehabilitation counseling professional accrediting body, CORE (the Council on Rehabilitation Education).
2. Successfully apply the knowledge gained through course work to practical experiences in community rehabilitation settings.
3. Prepared to enter professional positions in fields related to rehabilitation counseling including vocational rehabilitation, mental health counseling, advocacy, and support of individuals with disabilities.
4. Recognize and apply principles of ethical and professional conduct.
5. Meet learning outcomes related to CACREP (Council for Accreditation of Counseling and Related Educational Programs) standards.

PEOPLE

Faculty:

Rehabilitation Counseling and Rehabilitation Counselor Education:
Professors Fong Chan, Brian Phillips, David Rosenthal, Susan Smedema, and Timothy Tansey

Special Education:
Professors Aydin Bal, Bonnie Doren, Taucia Gonzalez, Melinda Leko, Andrea Rupp, and Kimber Wilkerson

For more information about faculty in the Rehabilitation Psychology and Special Education Department, see:

<https://rpse.education.wisc.edu/rpse/people/faculty>

ACCREDITATION

ACCREDITATION

Council for the Accreditation of Counseling and Related Programs (<http://www.cacrep.org>)

Accreditation status: Accredited. Next accreditation review: 2018–2019.

CERTIFICATION/LICENSURE

Commission on Rehabilitation Counselor Certification (<https://www.crc certification.com>)

Year of Exam	UW-Madison Graduates: First Attempt	National First Attempt
2016-2017	100%	not available

REHABILITATION COUNSELOR EDUCATION, DOCTORAL MINOR

The doctoral minor in rehabilitation counselor education offers students the opportunity to bring a rehabilitation counselor education focus to doctoral studies in other departments. The rehabilitation psychology area of the Department of Rehabilitation Psychology and Special Education provides academic instruction in the following areas: disability and human behavior, professional issues and leadership and advocacy in rehabilitation counselor education; assessment and intervention issues in rehabilitation counseling and counselor education. The rehabilitation psychology faculty welcomes students from other disciplines who wish to complete a doctoral minor in rehabilitation counselor education.

ADMISSIONS

The student must request that a faculty member in rehabilitation counselor education serve as the doctoral minor advisor. Coursework must be selected in consultation with the faculty advisor. It is recommended that students meet with a faculty member to plan the minor courses and submit the minor declaration form (<https://uwmadison.box.com/s/xvi0dttta388w8dqsk62pjdjap28zu>) during the first year of doctoral study.

Contact information: RP & SE student services coordinator, rpseinfo@education.wisc.edu.

REQUIREMENTS

The doctoral minor in rehabilitation counselor education consists of 9 credits of coursework from the rehabilitation psychology and special education (http://guide.wisc.edu/courses/rp_se) area of the Department of Rehabilitation Psychology and Special Education. These 9 credits must be at the 500 level or above, and chosen in consultation with a faculty advisor.

PEOPLE

Faculty:

Rehabilitation Counseling and Rehabilitation Counselor Education:
Professors Fong Chan, Brian Phillips, David Rosenthal, Susan Smedema, and Timothy Tansey

Special Education:

Professors Aydin Bal, Bonnie Doren, Taucia Gonzalez, Melinda Leko, Andrea Ruppar, and Kimber Wilkerson

For more information about faculty in the Rehabilitation Psychology and Special Education Department, see:

<https://rpse.education.wisc.edu/rpse/people/faculty>

REHABILITATION COUNSELOR EDUCATION, PH.D.

The Ph.D. program in rehabilitation counselor education prepares graduates to serve as university professors in rehabilitation counseling and closely related academic programs. The program is a leader in preparing Ph.D. professionals who go on to serve in teaching, research, and program administration at universities throughout the U.S. and internationally.

Through a rigorous program combining scholarly inquiry with opportunities for university level teaching practice and applied internship practice, students gain outstanding research, leadership and professional skills. Employment opportunities following graduation include public and private educational, rehabilitation, and mental health agencies, colleges and universities, and research settings. Further evidence of the quality and recognition of the graduate programs at the University of Wisconsin–Madison is provided by the current number one ranking of the rehabilitation counseling program by *U.S. News & World Report*.

Faculty members work closely with doctoral students on research projects including the PROMISE grant, several Rehabilitation Research and Training Centers, and technical assistance projects focused on promoting evidence-based practices in vocational rehabilitation and program evaluation. In addition, faculty routinely involve students in a full array of professional activities. These may include serving as editors or editorial board members for journals, preparing materials for litigation involving civil rights violations of persons with disabilities, preparing research and training grant applications, preparing training materials, and involvement in clinical cases.

Financial support is available to qualified graduate students and may include scholarships, traineeships, teaching assistantships, and research/project assistantships.

ADMISSIONS

Complete application information is available on the program website (<http://rpse.education.wisc.edu/rpse/programs/graduate-degree-programs/rehabilitation-psychology-graduate-program/application-admission-m-s-m-a>).

Applicants are expected to meet general requirements for admission to the Graduate School. The following factors will be considered by the

admissions committee: aptitude for doctoral-level study, relevance of prior academic work and career goals, stated goals for doctoral study, employment history, potential success in forming effective counseling relationships, respect for cultural differences, evidence of writing and research skill, letters of recommendation, and scores on the Graduate Record Examination (GRE).

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Prospective students should see the program website (<http://rpse.education.wisc.edu/rpse/programs/funding-and-financial-aid>) for funding information.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely

online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement	60 credits beyond the Master's degree
Minimum Residence Credit Requirement	32 credits beyond the Master's degree
Minimum Graduate Coursework Requirement	30 credits must be in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle).
Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.
Assessments and Examinations	Formal admission to doctoral study Preliminary examinations Dissertation final oral committee examination
Language Requirements	No language requirements.
Doctoral Minor/Breadth Requirements	All doctoral students are required to complete a minor of 10–12 credits.

REQUIRED COURSES

Meet requirements of master's-level content in basic psychology, statistics and research design, rehabilitation counselor education core, assessment, intervention, disability and human behavior, and supervised experience.

60 post-master's graduate degree credits to include:

Code	Title	Credits
Foundations		
ED PSYCH 542	The Biological Basis of Behavior	3
COUN PSY/RP & SE/ PSYCH 729	Advanced Social Psychology	3
ED PSYCH/COUN PSY/RP & SE 735	Legal and Ethical Bases of Counseling and Psychology	3
RP & SE/COUN PSY/ ED PSYCH 736	Seminar in Psychology of Individual Differences	3
ED PSYCH 795	Introduction to Learning Sciences I	3
Measurement, Statistics and Research Design		
ED PSYCH 760	Statistical Methods Applied to Education I	3

ED PSYCH 761	Statistical Methods Applied to Education II	3
ED PSYCH 771	Test Construction	3
RP & SE 985	Individuals with Disabilities: Advanced Research Methodologies	3
COUN PSY 960	Research Methods in Counseling Psychology, II	3
OR Another advisor approved advanced course in Statistics/Design/Methodology		
Rehabilitation Counselor Education Core		
RP & SE 870	Seminar: Assessment in Rehabilitation Psychology	3
RP & SE 903	Psychosocial Theory and Research in Rehabilitation Psychology	3
RP & SE 980	Adult Cognitive Assessment	3
RP & SE 983	Seminar: Professional Issues in Rehabilitation Psychology	3
RP & SE 984	Seminar: Principles of Behavior Change in Rehabilitation Psychology	3
Practicum		
RP & SE 900	Rehabilitation Counseling Psychology-Supervised Practicum III	3
RP & SE 920	Rehabilitation Counseling Psychology-Counseling Supervision	3
RP & SE 930	Rehabilitation Counseling Psychology-Practice Teaching	3
RP & SE 940	Rehabilitation Counseling Psychology-Supervised Research	3
Minor		
10-12 credits		
Internship		
RP & SE 660	Special Topics (Rehabilitation Counselor Education Internship)	3
RP & SE 660	Special Topics (Rehabilitation Counselor Education Internship)	3
Dissertation		
RP & SE 990	Research or Thesis	3
RP & SE 990	Research or Thesis	2
RP & SE 660	Special Topics (Research Seminar)	1

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://rpse.education.wisc.edu/rpse/programs/graduate-degree-programs/rehabilitation-psychology-graduate-program>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

Students are allowed to count graduate coursework from other institutions. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

No credits taken as an undergraduate are allowed to count toward the post-master's credits for the degree.

UW–Madison University Special

With program approval, students are allowed to count no more than 15 credits of coursework numbered 300 or above taken as a UW–Madison University Special student toward the minimum graduate degree credit requirement; those courses numbered 700 level or above taken as a UW–Madison University Special student may count toward the minimum graduate coursework (50%) requirement. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Students are assigned a faculty advisor upon admission to the program.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

A doctoral degree requires 32 graduate credits (300 level or above, no audits or pass/fail) taken as a graduate student at UW–Madison.

Doctoral students have five years from the date of passing the preliminary examination to take the final oral examination and deposit the dissertation. In some departments, if the professor(s) in charge is satisfied with the preparation, the preliminary examination may be construed as the final examination.

A candidate for a doctoral degree who fails to take the final oral examination within five years after passing the preliminary examination is required to take another preliminary examination and be admitted to

Rehabilitation psychology minimum degree requirements and satisfactory progress chart March 2014 candidacy a second time.

Deposit of the doctoral dissertation in the Graduate School is required.

OTHER

n/a

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Articulates research problems, potentials, and limits with respect to theory, knowledge, or practice within the field.
2. Formulates ideas, concepts, designs, and/or techniques beyond the current boundaries of knowledge within the field.
3. Creates research, scholarship, or performance that makes a substantive contribution to the field.
4. Communicates complex ideas in a clear and understandable manner.
5. Demonstrates breadth within their learning experiences in the doctoral program in rehabilitation psychology.
6. Shares knowledge and research in the field with students in a clear and engaging manner; effectively communicates with students within and outside of class; advances contributions of the field to society.
7. Participates in public and professional service.
8. Serve as a model of ethical and professional conduct. Promote the ethical and professional conduct of researchers, educators, and practitioners of rehabilitation psychology and rehabilitation counseling.

PEOPLE

Faculty:

Rehabilitation Counseling and Rehabilitation Counselor Education:
Professors Fong Chan, Brian Phillips, David Rosenthal, Susan Smedema, and Timothy Tansey

Special Education:

Professors Aydin Bal, Bonnie Doren, Taucia Gonzalez, Melinda Leko, Andrea Rupp, and Kimber Wilkerson

For more information about faculty in the Rehabilitation Psychology and Special Education Department, see:

<https://rpse.education.wisc.edu/rpse/people/faculty>

SPECIAL EDUCATION, DOCTORAL MINOR

The doctoral minor in special education offers students the opportunity to bring a special education focus to doctoral studies in other departments. Special education faculty members prepare students to bring systemic change to educational and community settings in ways that improve access and equity for children and youth with disabilities and their families. Coursework addresses pressing issues in the field including increasing equity across diverse groups of students, improving post-school outcomes for individuals with disabilities, and enhancing teacher efficacy in secondary education methodologies with students with disabilities.

ADMISSIONS

The student must request that a special education area faculty member serve as the doctoral minor advisor. Coursework must be selected in consultation with the faculty advisor. The minor declaration form must be completed and submitted to the student services coordinator in the RP & SE department.

Contact information: RP & SE student services coordinator, rpseinfo@education.wisc.edu.

REQUIREMENTS

The doctoral minor in special education consists of 9 credits to include:

1. RP & SE 871 Foundations of Special Education (usually offered in fall semesters)
2. Additional course work in the special education area of the RP & SE department to reach a minimum of 9 credits, to be chosen in consultation with a faculty advisor.

SPECIAL EDUCATION, M.S.

The M.S. degree program in special education offers two master's tracks including a teacher certification track and a general track. The Special Education master's program prepares students to serve as resources and advocates for students with disabilities and their families, and to work cooperatively with schools and community agencies to improve the quality of life for students with disabilities. Graduates of the teacher certification master's program are eligible to apply for Wisconsin cross-categorical Special Education licensure at the middle childhood through early adolescence level (ages 6–12/13), and at the early adolescence through adolescence level (ages 10–21).

Special Education is one of the two academic areas in the Department of Rehabilitation Psychology and Special Education. The areas are joined by a common mission of preparing professional leadership personnel to address the educational and rehabilitation needs of individuals with disabilities across the life span. Both special education and rehabilitation psychology offer programs leading to Ph.D., M.S., and B.S. degrees. Special education addresses the needs of children, youth, and young adults through its teacher education, research and service programs. Rehabilitation psychology addresses the needs of older youth, young adults, and adults. Department faculty in both areas join resources

to provide training and research programs that promote successful transition from school to the world of work, post-secondary, education and successful psycho-social adaptation for individuals with disabilities.

Special Education faculty research focuses on the following areas:

- Research methodologies in special education
- Diversity and equity issues in the field of special education
- Literacy and reading instruction for individuals with disabilities
- Teacher education and preparation of high quality special education teachers
- Evidence-based interventions with students with severe disabilities including multiple disabilities, intellectual disability and autism
- Special education issues in adolescence, transitional and vocational education

ADMISSIONS

Application information is available on the department website (<http://rpse.education.wisc.edu/rpse/programs/graduate-degree-programs/special-education-graduate-programs/application-requirements-and-deadlines>). Applicants are expected to meet general requirements for admission to the Graduate School. The admissions committee considers a variety of factors including academic preparation, letters of recommendation, personal statement, and professional experiences.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

General M.S.—funding sometimes available through department; not guaranteed

M.S. with Teacher Cert.—funding generally not available through department

M.S. with Teacher Cert. EPIC—tuition remission and stipend provided

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement	30 credits The teacher certification track incorporates a professional program; average number of credits taken by students exceeds 30 credits.
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Minimum Residence Credit Requirement	16 credits
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Minimum Graduate Coursework Requirement	M.S. general track: Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (https://registrar.wisc.edu/course-guide/).
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M.S. teacher certification track:

36 credits must be in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle>).

Overall Graduate GPA Requirement	3.00 GPA required.
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Other Grade Requirements	The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.
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Assessments and Examinations	Students in the master's with teacher certification program must complete Wisconsin required teacher certification examinations. Students in the general master's program are required to complete a comprehensive examination, and a master's project or thesis.
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Language Requirements	No language requirements.
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REQUIRED COURSES

M.S. General Master's Program ¹

Requires a minimum of 30 credits to include:

- RP & SE 700 Seminar: Rehabilitation Psychology Research
- Additional coursework to be determined in consultation with faculty advisor
- Master's comprehensive exam
- Project and/or thesis (to be determined in consultation with faculty advisor)

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

M.S. Teacher Certification Program ¹

Program admission requires completion of RP & SE 300 Individuals with Disabilities, and verification of basic skills teacher certification requirement.

Requires completion of the Special Education teacher certification program including the following courses:

Code	Title	Credits
RP & SE 330	Behavior Analysis: Applications to Persons with Disabilities	3
RP & SE 403	Promoting Adolescent Literacy for Students with Disabilities	1
RP & SE 660	Special Topics (Development, Learning and Educational Foundations in Special Education)	3
RP & SE 464	Diagnosis, Assessment, and Instructional Planning in Special Education	4
CURRIC/ RP & SE 506	Strategies for Inclusive Schooling	3
CURRIC 374	General Educ Practicum & Instructional Planning for Diverse Learners	5
RP & SE 465	Language and Reading Instruction for Students with Disabilities	4
RP & SE 473	Management: Students with Learning and Behavioral Disabilities	3
RP & SE 401	Augmentative and Alternative Communication and Assistive Technology for Students with Disabilities	1
RP & SE 402	Methods in Teaching Functional Skills	1

RP & SE 700	Seminar: Rehabilitation Psychology Research	3
RP & SE 467	Elementary Student Teaching Seminar	2
RP & SE 477	Special Education Student Teaching: Middle Childhood - Early Adolescence	7
RP & SE 468	Secondary Student Teaching Seminar	2
RP & SE 478	Special Education Student Teaching: Early Adolescence - Adolescence	7
RP & SE 472	Methods in Transition and Vocational Education	3
RP & SE 660	Special Topics (Access to the Gen Curriculum for Students with Disabilities)	3

earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

A semester GPA below 3.0 will result in the student being placed on academic probation. If a semester GPA of 3.0 is not attained during the subsequent semester of full time enrollment (or 12 credits of enrollment if enrolled part-time) the student may be dismissed from the program or allowed to continue for one additional semester based on advisor appeal to the Graduate School.

ADVISOR / COMMITTEE

Students are assigned a faculty mentor upon admission to the program.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who are absent for five or more years will not be given credit for prior work.

OTHER

n/a

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<http://rpse.education.wisc.edu/rpse/programs/graduate-degree-programs/forms-and-handouts>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

Students are allowed to count graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW-Madison Undergraduate

With program approval, students are allowed to count 7 credits of coursework numbered 300 level or above from a UW-Madison undergraduate degree toward the graduate degree. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW-Madison University Special

With program approval, students are allowed to count no more than 15 credits of coursework numbered 300 or above taken as a UW-Madison University Special student. Coursework

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

- (General Master's Program) Articulates, critiques, or elaborates the theories, research methods, and approaches to inquiry or schools of practice in the field of study.
- (General Master's Program) Identifies sources and assembles evidence pertaining to questions or challenges in the field of study.
- (General Master's Program) Demonstrates understanding of the primary field of study in a historical, social, or global context.
- (General Master's Program) Selects and/or utilizes the most appropriate methodologies and practices.
- (General Master's Program) Evaluates or synthesizes information pertaining to questions or challenges in the field of study.
- (General Master's Program) Communicates clearly in ways appropriate to the field of study.
- (Master's with Teacher Certification Program) Special Education Advocacy and Leadership: Prepared to advocate for and provide leadership in the education of students with a wide array of learning, cognitive, social/emotional and behavioral disabilities in accordance with the standards established by the Council for Exceptional Children.

8. (Master's with Teacher Certification Program) Professionalism: Adhere to professional ethical standards and conduct her or himself in a courteous and professional manner.

9. (Master's with Teacher Certification Program) Collaboration and Communication: Collaborate and effectively communicate with students their families, other educators, related service providers and members of the community to address the needs of students with disabilities.

10. (Master's with Teacher Certification Program) Assessment: Collect information on student backgrounds, learning characteristics and achievement that can be used to determine students' present level of performance and guide instruction.

11. (Master's with Teacher Certification Program) Special Education Evaluation and Individualized Educational Planning: To the maximum possible the teacher candidate will participate in the Educational Evaluation and Individualized Educational Planning process.

12. (Master's with Teacher Certification Program) Instructional Planning: Plan instruction that meets the needs of students, is consistent with State and local standards and provides access to the general education curriculum.

13. (Master's with Teacher Certification Program) Instructional Presentations: Present lessons and units of instruction that gain and maintain student attention and are consistent with students' interests and IEP goals.

14. (Master's with Teacher Certification Program) Classroom Management: Create and maintain a safe, positive and supportive learning environment that is conducive to learning and the mental health of the students.

15. (General Master's Program) Recognize and apply principles of ethical and professional conduct.

16. (Master's with Teacher Certification Program) Adhere to professional ethical standards and conduct her or himself in a courteous and professional manner.

issues in the field including increasing equity across diverse groups of students, improving post-school outcomes for individuals with disabilities, and enhancing teacher efficacy in special education.

Faculty research focuses on the following areas:

- Research methodologies in special education
- Diversity and equity issues in the field of special education
- Literacy and reading instruction for individuals with disabilities
- Teacher education and preparation of high quality special education teachers
- Evidence-based interventions with students with severe disabilities including multiple disabilities, intellectual disability and autism
- Special education issues in adolescence, transitional and vocational education

Special education is one of the two academic areas in the Department of Rehabilitation Psychology and Special Education. The areas are joined by a common mission of preparing professional leadership personnel to address the educational and rehabilitation needs of individuals with disabilities across the life span. Special education addresses the needs of children, youth, and young adults through its teacher education, research and service programs. Rehabilitation psychology addresses the needs of older youth, young adults, and adults. Department faculty in both areas join resources to provide training and research programs that promote successful transition from school to the world of work, post-secondary, education and successful psycho-social adaptation for individuals with disabilities.

The department is a national and international leader in preparing Ph.D. professionals to serve in leadership positions in university teaching, research, and program administration. This leadership is evidenced by the publication and research record of its faculty and graduates, and by the routine placement of Ph.D. graduates in major universities and colleges.

ADMISSIONS

Application information is available on the department website (<http://rpse.education.wisc.edu/rpse/programs/graduate-degree-programs/special-education-graduate-programs/application-requirements-and-deadlines>). Applicants are expected to meet general requirements for admission to the Graduate School. The admissions committee considers a variety of factors including academic preparation, letters of recommendation, personal statement, and professional experiences.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PEOPLE

Faculty:

Rehabilitation Counseling and Rehabilitation Counselor Education:
Professors Fong Chan, Brian Phillips, David Rosenthal, Susan Smedema, and Timothy Tansey

Special Education:
Professors Aydin Bal, Bonnie Doren, Taucia Gonzalez, Melinda Leko, Andrea Rupp, and Kimber Wilkerson

For more information about faculty in the Rehabilitation Psychology and Special Education Department, see:
<https://rpse.education.wisc.edu/rpse/people/faculty>

SPECIAL EDUCATION, PH.D.

The Ph.D. program prepares leaders in the field of special education to bring systemic change to educational and community settings in ways that improve access and equity for children and youth with disabilities and their families. The program prepares graduates to address pressing

PROGRAM RESOURCES

Financial support, although limited, is available to qualified graduate students and may include scholarships, traineeships, teaching assistantships, and research/project assistantships. There are guaranteed assistantship positions for some qualified applicants (includes tuition remission and stipend), and an application process for additional teaching/project assistant positions. Prospective students should see the program website (<http://rpse.education.wisc.edu/rpse/programs/funding-and-financial-aid>) for funding information.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 56 credits

Minimum Residence Credit Requirement 32 credits

Minimum Graduate Coursework Requirement 28 credits must be in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Qualifying examination, preliminary examination, dissertation, final oral committee examination.

Language Requirements No language requirements.

Doctoral Minor/Breadth Requirements All doctoral students are required to complete a minor.

REQUIRED COURSES

Complete a minimum of 56 post-master's degree credits to include the following:

Code	Title	Credits
Special Education Core/Seminars		
RP & SE 871	Foundations of Special Education	3
RP & SE 872	Seminar in Special Education Research	3
RP & SE 873	Professional Development for Future Special Education Researchers and Faculty in Higher Education ¹	1
RP & SE 873	Professional Development for Future Special Education Researchers and Faculty in Higher Education ¹	1
RP & SE 710	Multicultural Issues in Special Education	3
Additional RP & SE seminar courses chosen in consultation with the faculty advisor, with at least one course focused on adolescence, to reach a total of a minimum of 20 credits of seminar/core courses.		9
Doctoral Minor (chosen in consultation with faculty advisor)		9
Research Design and Statistics		
ED PSYCH 760	Statistical Methods Applied to Education I	3
ED PSYCH 761	Statistical Methods Applied to Education II	3
RP & SE/COUN PSY/ CURRIC/ED POL/ ED PSYCH/ELPA 719	Introduction to Qualitative Research	3

Additional courses in research design/statistics/methods chosen in consultation with the faculty advisor to total a minimum of 15 credits

Internships		
RP & SE 930	Rehabilitation Counseling Psychology-Practice Teaching	3
RP & SE 941	Internship: Research	3
Dissertation (minimum of 6 credits)		
RP & SE 990	Research or Thesis	3
RP & SE 990	Research or Thesis	3
Total Credits		56

¹ Take RP & SE 873 a minimum of twice.

In addition to the course requirements noted above, students must pass a qualifying examination and a preliminary examination.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<http://rpse.education.wisc.edu/rpse/programs/graduate-degree-programs/forms-and-handouts>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

Students are allowed to count graduate coursework from other institutions. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

No credits taken as an undergraduate are allowed to count toward the post-master's credits for the degree.

UW–Madison University Special

With program approval, students are allowed to count no more than 15 credits of coursework numbered 300 or above taken as a UW–Madison University Special student toward the minimum graduate degree credit requirement; those courses numbered 700 level or above taken as a UW–Madison University Special student may count toward the minimum graduate coursework (50%) requirement. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

PROBATION

A semester GPA below 3.0 will result in the student being placed on academic probation. If a semester GPA of 3.0 is not attained during the subsequent semester of full time enrollment (or 12 credits of

enrollment if enrolled part-time) the student may be dismissed from the program or allowed to continue for one additional semester based on advisor appeal to the Graduate School.

ADVISOR / COMMITTEE

Students are assigned a faculty advisor upon admission to the program. See the program handbook for additional information about advising.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Doctoral students have five years from the date of passing the preliminary examination to take the final oral examination and deposit the dissertation. In some departments, if the professor(s) in charge is satisfied with the preparation, the preliminary examination may be construed as the final examination.

A candidate for a doctoral degree who fails to take the final oral examination within five years after passing the preliminary examination is required to take another preliminary examination and be admitted to candidacy a second time.

Deposit of the doctoral dissertation in the Graduate School is required.

OTHER

n/a

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

- (Conceptual Knowledge) Formulates ideas, concepts, designs, and/or techniques within and beyond the current boundaries of knowledge, or practice within the field of study; demonstrates breadth within their learning experiences.
- (Research Skills) Articulates research problems, potentials, and limits with respect to theory, knowledge, or practice within the field of study; creates research, scholarship, or performance that makes a substantive contribution.
- (Teaching/Advising Skills) Shares knowledge and research in the field with students in a clear and engaging manner; effectively communicates with students within and outside of class; advances contributions of the field of study to society.
- (Communication and Leadership Skills) Communicates complex ideas in a clear and understandable manner to a variety of audiences.
- (Service) Participates in public and professional service.

6. (Professionalism/Ethics) Demonstrates the ability to work well with others, participates in professional organizations, adheres to ethical standards of research protocol and professional behavior.

PEOPLE

Faculty:

Rehabilitation Counseling and Rehabilitation Counselor Education:
Professors Fong Chan, Brian Phillips, David Rosenthal, Susan Smedema, and Timothy Tansey

Special Education:
Professors Aydin Bal, Bonnie Doren, Taucia Gonzalez, Melinda Leko, Andrea Rupp, and Kimber Wilkerson

For more information about faculty in the Rehabilitation Psychology and Special Education Department, see:

<https://rpse.education.wisc.edu/rpse/people/faculty>

RELIGIOUS STUDIES

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Religious Studies, Doctoral Minor (p. 1231)

PEOPLE

Faculty: See current faculty listing on program website (<http://religiousstudies.lss.wisc.edu/?q=node/8>).

RELIGIOUS STUDIES, DOCTORAL MINOR

Religious Studies has emerged as one of the most significant interdisciplinary programs on campus. It includes faculty from more than twenty departments and offers dozens of courses covering all of the world's major and many of its minor religious traditions. Chronologically, the program's offerings range from ancient to modern times; geographically, they span the globe; and methodologically, they range across the humanities and social studies, with special attention to the theories and methods which have developed in the field of religious studies itself. The program does not offer a graduate degree, but the Religious Studies Program does award a minor to doctoral students enrolled in other departments. In exceptional circumstances, students admitted to a doctoral-degree-granting department may be granted permission to pursue a special committee doctorate in Religious Studies; for information on such degrees, contact the Graduate School.

REQUIREMENTS

Students interested in a doctoral minor in Religious Studies meet with the doctoral minor advisor, Professor Jordan Rosenblum, jrosenblum@wisc.edu, to plan their course. Minors are expected to achieve a grade of B or better in four Religious Studies Program courses

totaling at least **10 credits** at the 300 level or above. One of these four courses must deal with Approaches to Religion; RELIG ST 600 Religion in Critical Perspective is strongly recommended. In order to receive course credit toward the minor, students must register for cross-listed courses from within Religious Studies rather than from within any cross-listing department. The doctoral minor planning form and certification form is available on the Religious Studies Program website. (<http://religiousstudies.lss.wisc.edu/?q=node/1>)

The Doctoral Minor Requirements

- Four courses at the 300-level or above, totaling at least 10 credits
- One of these four courses taken in **Approaches to Religion** (see below)
- Registration for these courses (especially those that are cross-listed with other academic units) from within Religious Studies
- A grade of B (3.0 on a 4.0 scale) or better in each course

Approaches to Religion Courses:

Code	Title	Credits
RELIG ST/ ANTHRO 343	Anthropology of Religion	3-4
RELIG ST/ COM ARTS 374	The Rhetoric of Religion	3
RELIG ST/ PHILOS 501	Philosophy of Religion	3-4
RELIG ST/ PHILOS 502	Special Topics in Philosophy of Religion	3
RELIG ST/CURRIC/ ED POL 516	Religion and Public Education	3
RELIG ST 600	Religion in Critical Perspective	3
RELIG ST/LCA 620	Proseminar: Studies in Religions of Asia	3

PEOPLE

The PhD Minor Advisor is Professor Jordan Rosenblum, jrosenblum@wisc.edu.

Faculty: See current faculty listing on program website (<http://religiousstudies.lss.wisc.edu/?q=node/8>).

PROFESSORS

Bell, Bowie, Brenner, Bühnemann, Chamberlain, Cohen, Dale, DuBois, Dunne, Gade, Hansen, Hardin, Hildner, Howard, Hsia, Koshar, Langer, Livorni, Loudon, Nadler, Ohnuki-Tierney, Phillips, Rosenblum, Schamiloglu, Schenck, Schweber, Stanford Friedman, Thompson, Wandel, Wink, Wolf, Zaeske

ASSOCIATE PROFESSORS

Beneker, Cerulli, Hutton, Livanos, Ridgely, Shelef, Shoemaker, Thal, Todorovic

ASSISTANT PROFESSORS

Al-Mohammad, Chamedes, Hollander, Mandell, Pruitt

DISTINGUISHED FACULTY ASSOCIATE

Brown

FACULTY ASSOCIATES

Mellor, Norman, Rosenhagen

ASSOCIATE FACULTY ASSOCIATE

Whelan

LECTURER

Carlsson

FACULTY DIVERSITY LIAISON

Program Director Rosenblum

RISK AND INSURANCE**DEGREES/MAJORS, DOCTORAL MINORS,
GRADUATE PROFESSIONAL/CERTIFICATES**

- Business: Actuarial Science, Doctoral Minor (p. 1232)
- Business: Risk Management and Insurance, M.S. (p. 1232)
- Business: Risk Management and Insurance, MBA (p. 1234)

PEOPLE

Faculty: Professors Schmit (chair), Frees, Rosenberg; Associate Professor Leverty; Assistant Professors Mukherjee, Shi, Sydnor

**BUSINESS: ACTUARIAL SCIENCE,
DOCTORAL MINOR****REQUIREMENTS**

Code	Title	Credits
Required Classes		
ACT SCI/MATH 303	Theory of Interest and Life Insurance	3
ACT SCI 650	Actuarial Mathematics I	3
ACT SCI 652	Loss Models I	3
Specialization Core		
Choose at least one of:		
ACT SCI 651	Actuarial Mathematics II	3
ACT SCI 653	Loss Models II	3
Choose at least one of:		
ACT SCI 654	Regression and Time Series for Actuaries	3
ACT SCI 655	Health Analytics	3

**BUSINESS: RISK MANAGEMENT
AND INSURANCE, M.S.**

Founded in 1900, the School of Business established one of the first five business programs in the nation. That entrepreneurial spirit remains strong.

As a student in the School of Business, you will find yourself inspired by peers, staff, alumni, business leaders, and world-renowned faculty who are focused, collaborative, and engaged in every aspect of the student experience. You will join a highly ranked program that equips you to meet both academic and career challenges. Employers value School of Business graduates because of the comprehensive preparation this learning environment provides. Graduates possess highly sought-after general management and specialized expertise in business.

Joining collaborative, inspiring, trustworthy, and progressive WSB alumni, Business Badgers graduate prepared to lead their organizations to success and transform the world of business. Together Forward!

ADMISSIONS

This master's program is offered for work leading to the Ph.D. Students may not apply directly for the master's, and should instead see the admissions information for the Ph.D. (p. 212)

FUNDING**GRADUATE SCHOOL RESOURCES**

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS**MINIMUM GRADUATE SCHOOL
REQUIREMENTS**

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS**MODE OF INSTRUCTION**

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Contact the program for information on required assessments and examinations.

Language Requirements Contact the program for information on any language requirements.

REQUIRED COURSES

This master's degree is earned by students on the way to earning the Ph.D. in Business. Refer to the curricular requirements for specific tracks within the Business Ph.D. (p. 213) for required courses.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 9 credits of graduate coursework from other institutions. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW-Madison Undergraduate

No credits from a UW-Madison undergraduate degree are allowed to count toward the degree.

UW-Madison University Special

With program approval and payment of the difference in tuition (between special and graduate tuition), students are allowed to count no more than 9 credits of coursework numbered 700 or above taken as a UW-Madison University Special student. Coursework earned five or more years prior to the master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Students must be enrolled full-time.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Integrate a holistic risk management process (framework) across all dimensions of an organization, implementing RM decisions that add value.
2. Apply fundamental insurance principles that support economic development through insurance markets.
3. Use appropriate qualitative and quantitative analysis, including statistical and data techniques, to support risk management decisions.
4. Demonstrate strong critical thinking skills as observed through their ability to debate various positions, ask skeptical questions, and probe underlying assumptions.
5. Set objectives, define success, establish priorities, and implement strategies to achieve goals.
6. Identify decision-making challenges, and implement strategies to address those challenges, in environments involving risk and uncertainty.
7. Incorporate diverse perspectives, value opinions of others, and work collegially.
8. Communicate effectively across diverse social and professional settings.
9. Demonstrate leadership qualities in moving the profession forward.
10. Build and develop teams and lead effectively at individual, group, and organizational level.
11. Communicate effectively on paper, in conversation, and by presentation.
12. Summarize complex problems, present results succinctly, and with logical flow, respond effectively to critical and skeptical questions, and listen to critiques.

PEOPLE

Faculty: Professors Schmit (chair), Frees, Rosenberg; Associate Professor Levery, Shi, Sydnor; Assistant Professors Mukherjee, Wang

BUSINESS: RISK MANAGEMENT AND INSURANCE, MBA

Founded in 1900, the School of Business established one of the first five business programs in the nation. That entrepreneurial spirit remains strong.

As a student in the School of Business, you will find yourself inspired by peers, staff, alumni, business leaders, and world-renowned faculty who are focused, collaborative, and engaged in every aspect of the student experience. You will join a highly ranked program that equips you to meet both academic and career challenges. Employers value School of Business graduates because of the comprehensive preparation this learning environment provides. Graduates possess highly sought-after general management and specialized expertise in business.

Joining collaborative, inspiring, trustworthy, and progressive WSB alumni, Business Badgers graduate prepared to lead their organizations to success and transform the world of business. Together Forward!

The risk management and insurance program has a long tradition of innovation and excellence, opening its doors more than 70 years ago, and consistently ranks in the top handful of programs in the country. Students who graduate from our risk management and insurance program do so with exceptionally strong critical thinking and analytical skills, aided by a vast array of experiences interacting with business professionals in risk management consulting, finance, and operations. The School of Business' Risk Management and Insurance program has consistently ranked among the best in the nation, recently earning a ranking of #2 in the United States by U.S. News and World Report. See the program website (<https://wsb.wisc.edu/programs-degrees/mba/full-time/career-specializations/risk-management-insurance>) for more information.

ADMISSIONS

Admission consideration for the MBA program requires a four-year undergraduate degree or the equivalent, in any discipline, from an accredited institution. The School of Business seeks a minimum of two years of full-time work experience along with a strong undergraduate performance. In addition to academic credentials, GMAT scores, and work experience, personal achievements, motivation, communication skills (written and oral), international exposure, and recommendation letters are considered in the admission process at both the master's and doctoral levels.

Note: The Graduate Management Admission Test (GMAT), taken within five years of the starting term, is required of all applicants to the School of Business; the Graduate Record Exam (GRE) may be an acceptable alternative on a case by case basis. All applicants whose native language is not English must submit scores from the Test of English as a Foreign Language (TOEFL), the Pearson Test of English (PTE), Intensive English as a Second Language (IELTS), or show the completion of an Interlink program. A minimum iBT TOEFL score of 100 or equivalent, obtained within two years of the intended start term, is required. International applicants who have completed a degree at an institution whose primary language of instruction was English may request a waiver of this requirement on the application.

HOW TO APPLY

Students interested in Business degrees do not apply through the Graduate School application system and should instead refer to the School of Business Admissions page. (<https://wsb.wisc.edu/programs-degrees/mba/full-time/admissions>)

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Prospective students should see the program website for funding information.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement	16 credits
Minimum Graduate Coursework Requirement	Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (https://registrar.wisc.edu/course-guide/).
Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.
Assessments and Examinations	Contact the program for information on required assessments and examinations.
Language Requirements	Contact the program for information on any language requirements.

REQUIRED COURSES

Code	Title	Credits
Year One		
<i>Fall Semester</i>		
GEN BUS 704	Data to Decisions	3
ACCT I S 700	Financial Accounting	3
FINANCE 700	Introduction to Financial Management	3
M H R 706	Leading and Working in Teams	1
MARKETNG 700	Marketing Management	3
R M I 700	Principles of Risk Management	3
R M I 765	Contemporary Topics	1
<i>Spring Semester</i>		
M H R 723	Business Strategy	3
OTM 700	Operations Management	3
OTM 732	Economics for Managers	3
R M I 660	Risk Analytics and Behavioral Science	3
R M I 820	Advanced Topics in Risk Management	3
or R M I 875	Seminar-Risk Management and Insurance	
Year Two		
<i>Fall Semester</i>		
GEN BUS 710	Ethics, Integrity and Society	1
ACCT I S 603	Financial Statement Analysis	3
R M I 640	Management of Insurance Enterprise	3
or R M I 645	Commercial Insurance	
R M I 655	Risk Financing Techniques	3
R M I 765	Contemporary Topics	1
Elective		3
<i>Spring Semester</i>		

R M I 640	Management of Insurance Enterprise	3
or R M I 645	Commercial Insurance	
R M I/GEN BUS 701	Managing Legal Risks	3
R M I 820	Advanced Topics in Risk Management	3
or R M I 875	Seminar-Risk Management and Insurance	
Elective		3
Total Credits		58

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Integrate a holistic risk management process (framework) across all dimensions of an organization, implementing RM decisions that add value.
2. Apply fundamental insurance principles that support economic development through insurance markets.
3. Use appropriate qualitative and quantitative analysis, including statistical and data techniques, to support risk management decisions.
4. Demonstrate strong critical thinking skills as observed through their ability to debate various positions, ask skeptical questions, and probe underlying assumptions.
5. Set objectives, define success, establish priorities, and implement strategies to achieve goals.
6. Identify decision-making challenges, and implement strategies to address those challenges, in environments involving risk and uncertainty.
7. Incorporate diverse perspectives, value opinions of others, and work collegially.
8. Communicate effectively across diverse social and professional settings.
9. Demonstrate leadership qualities in moving the profession forward.
10. Build and develop teams and lead effectively at individual, group, and organizational level.
11. Communicate effectively on paper, in conversation, and by presentation.
12. Summarize complex problems, present results succinctly, and with logical flow, respond effectively to critical and skeptical questions, and listen to critiques.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

No credits of prior coursework are allowed to satisfy requirements.

UW–Madison Undergraduate

No credits from a UW–Madison undergraduate degree are allowed to count toward the degree.

UW–Madison University Special

No credits of prior coursework are allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements;

that coursework may not count toward Graduate School credit requirements.

OTHER

Students must be enrolled full-time.

PEOPLE

Faculty: Professors Schmit (chair), Frees, Rosenberg; Associate Professor Leverty, Shi, Sydnor; Assistant Professors Mukherjee, Wang

ACCREDITATION

ACCREDITATION

AACSB International—The Association to Advance Collegiate Schools of Business (<http://www.aacsb.edu>)

Accreditation status: Accredited. Next accreditation review: 2021–2022.

SOCIAL WORK

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Social Welfare, Doctoral Minor (p. 1237)
- Social Welfare, Ph.D. (p. 1237)
- Social Work, MSW (p. 1242)

PEOPLE

Faculty: Professors Robert (director), Berger, Brower, Cancian, Greenberg, Kramer, Magnuson, Mailick, Meyer, Schroepfer, Shook Slack; Associate Professors Curtis, Moses; Assistant Professors Bishop-Fitzpatrick, Charles, Gerassi, Ros Pilarz, Xiong; Clinical Associate Professors Conn, Smith; Clinical Assistant Professors Dresser, Ngola, Studer, Willits. A complete list of all faculty and staff in the school is available here (<https://socwork.wisc.edu/facstaff-all>).

SOCIAL WELFARE, DOCTORAL MINOR

REQUIREMENTS

Doctoral students outside the school are invited to consider the minor in social welfare. The 9-credit minor requires three doctoral-level courses from the School of Social Work. One must be a Social Policy Seminar (SOC WORK 950 PhD Proseminar), one must be an Applied Theory Seminar (SOC WORK 951 PhD Proseminar), and the third can be a 3-credit social work doctoral course of the student's choosing (which could be another SOC WORK 950 PhD Proseminar or SOC WORK 951 PhD Proseminar seminar).

PEOPLE

Faculty: Professors Magnuson (program chair), Berger, Cancian, Greenberg, Kramer, Mailick, Meyer, Robert (school director), Schroepfer, Slack; Associate Professors Curtis, Moses; Assistant Professors Bishop-Fitzpatrick, Charles, Gerassi, Ros Pilarz, Xiong

SOCIAL WELFARE, PH.D.

PH.D. DEGREE TRACKS ¹

Students who enter the Ph.D. program with a master's degree in social work and follow the program's standard course sequencing should be able to complete their degree in four to five years. Students who enter the program without a master's degree must plan on an additional one to two years to complete the program and must select from among the following:

- *Track I:* MSW/Ph.D. program for students without a bachelor's degree in social work (students complete the equivalent of the two-year master's program while in the doctoral program)
- *Track II:* MSW/Ph.D. program for students with a bachelor's degree in social work (students complete the equivalent of the one-year master's program advanced generalist specialization in an area of focus; requires that students have a BSW from a CSWE accredited school of social work)
- *Track III:* Program for students who do not have a social work degree and who do not want an MSW (requires that students complete MSW generalist foundation courses and a 2-credit internship)

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

The doctoral program has four special features: an emphasis is given to interdisciplinary research and training that seeks to promote optimal functioning in individuals or families across the life course; it stresses that social welfare problems are best understood in individual, family, community, economic, and cultural context; it conceptualizes research as a catalyst for social action and change; and it emphasizes methodological and statistical training and their applications to studying social problems and processes.

The first two years of the curriculum emphasize methodological, statistical, theoretical and substantive coursework. A variety of social welfare seminars are offered within the school. Students from several departments are invited to join these seminars creating a rich interdisciplinary training environment. Two foundation social welfare research methods seminars cover the fundamentals of research design and implementation relevant to the design and conduct of quantitative, qualitative, and mixed methods research. Application of research methods seminars provide practical experience and application of research knowledge and skills (e.g., proposal writing and data analysis). The social policy and applied theory seminars address specific substantive issues (e.g., poverty, child welfare, family policy), as well as core policy analytics and models of the application of social theory to social problems, respectively. The social welfare faculty research seminar (SOC WORK 946 Faculty Research Seminar, fall semester); and two student research seminars (SOC WORK 947 Student Research Seminar,

spring semesters) provide opportunity for professional socialization to the field and development of research interests.

The curriculum is designed to require students to take some courses in departments throughout the campus, based on their individualized learning needs. Students take substantive and research courses focusing on topics related to their specialization. A wide selection of courses in world-renowned social and behavioral science departments is available. Students select an approved social science theory course; two statistics courses (C&E SOC/SOC 361 Statistics for Sociologists II –SOC 362 Statistics for Sociologists III or ED PSYCH 760 Statistical Methods Applied to Education I–ED PSYCH 761 Statistical Methods Applied to Education II); two substantive elective courses; two statistics/methodology elective courses. Years three and four (or five) are dedicated to the preparation and completion of preliminary examinations and dissertation research.

ABOUT THE SCHOOL OF SOCIAL WORK

The School of Social Work at UW–Madison is consistently ranked among the best schools of social work in the country. Faculty prepare social work professionals at the bachelor's, master's, and doctoral levels. Through the preparation of social work practitioners, scholars and educators, faculty and students explore and seek to understand the nature of social problems, their impact on vulnerable populations, and ways to critically analyze and promote the achievement of a just, equitable, healthy, and productive society.

Social work faculty are noted for their scholarly work in developing a conceptual understanding of social work practice and policy, and in producing research in important social problem areas. For example, faculty took a leadership role in the development of the generalist model of practice now used by most social work programs. Faculty members have made valuable research contributions in the fields of aging, child welfare, developmental disabilities, and family and intergenerational caregiving, as well as in educational attainment and life-course decision-making, end-of-life care for older adults and palliative care, health disparities, homelessness, poverty, social policy, welfare reform, and child support. Drawing on strong faculty, excellent students, and the resources of a world-renowned university in a community rich with social and human service programs, there is much to offer prospective students: individualized, faculty-taught field education for master's students, nationally renowned faculty with a strong interdisciplinary focus, and hands-on research training in a highly individualized program of study for doctoral students.

The school offers unique opportunities for students to receive state-of-the-art professional training through its field education program. Student practice opportunities range from experiences in institutional and community-based settings to working with families and other significant care-givers, with individuals and groups, and in policy and service delivery issues.

Mission. The mission of the School of Social Work is to enhance human well-being and promote social and economic justice for people who are disadvantaged to achieve an equitable, healthy, and productive society. The school aims to:

- Create, advance, strengthen, and integrate interdisciplinary knowledge for students and the profession through research, scholarship, and practice.

- Educate students to become highly skilled, culturally competent and ethical practitioners who will provide leadership for the profession of social work within the state of Wisconsin and nationally.
- Promote change at levels ranging from the individual client to national, including empowering communities and populations that are disadvantaged and developing humane service delivery systems.
- Create and disseminate knowledge regarding the prevention and amelioration of social problems.

The School of Social Work is one of five professional schools in the College of Letters & Science. As part of the college, the school maintains relationships with the other social studies and professional schools within the university system through interchange of faculty and students and through joint research and publication endeavors.

ADMISSIONS

Online applications are available through the Graduate School Electronic Application (<http://grad.wisc.edu/apply>). Admission to the Ph.D. program requires an undergraduate grade point average of at least 3.00 (on a 4.00 scale) on the equivalent of the last 60 semester credits. Applicants are required to have completed a statistics course; 30 semester credits of social science courses and Graduate Record Examination (GRE) scores taken within five years of application date; if appropriate, english proficiency exam (TOEFL) scores, taken within two years of application date. Applicants must also submit a statement of reasons for graduate study, three letters of recommendation, official transcripts, a writing sample, and a resume or CV.

Ph.D. program details are fully described on the School of Social Work website (<http://socwork.wisc.edu>).

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Prospective students should see the program website (<https://socwork.wisc.edu/phdfunding>) for funding information.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 51 credits

Minimum Residence Credit Requirement 32 credits

Minimum Graduate Coursework Requirement All degree coursework must be in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements The Graduate School requires an average grade of B or better in all coursework (300 or above, not including research credits) taken as a graduate student unless conditions for probationary status require higher grades. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Doctoral students are required to take a comprehensive preliminary/oral examination after they have cleared their record of all Incomplete and Progress grades (other than research and thesis). Deposit of the doctoral dissertation in the Graduate School is required.

Language Requirements Contact the program for information on any language requirements.

Doctoral Minor/Breadth Requirements Doctoral Social Welfare students are not required to complete a minor.

REQUIRED COURSES

For Students Entering with an MSW

Code	Title	Credits
Fall Semester 1		
SOC WORK 949	Proseminar	3
SOC WORK 950	PhD Proseminar	3
SOC WORK 946	Faculty Research Seminar	1
Statistics I		3
Spring Semester 1		
SOC WORK 948	Proseminar (Topic: Quantitative Methods)	3
SOC WORK 951	PhD Proseminar (Topic: Applied Theory Seminar)	3
SOC WORK 947	Student Research Seminar	1
SOC WORK 952	PhD Proseminar (Topic: Application of Research Methods)	3
Statistics II		3
Fall Semester 2		
SOC WORK 950	PhD Proseminar	3
	or SOC WORK 951 PhD Proseminar	
Social Science Theory course		3
SOC WORK 949	Proseminar (Topic: Qualitative Methods)	3
Statistics/Methods or Substantive Course Elective		3
Spring Semester 2		
SOC WORK 952	PhD Proseminar (Topic: Research Methods)	3
Substantive Course Elective		3
Statistics/Methods Elective		3
SOC WORK 947	Student Research Seminar	1
Total Credits		45

MSW/Ph.D. in Social Welfare for Students Without a BSW

Code	Title	Credits
Fall Semester 1		
Statistics I		3
SOC WORK 605	The Field of Social Work	2

SOC WORK 711	Human Behavior and the Environment	2
SOC WORK 946	Faculty Research Seminar	1
or SOC WORK 951	PhD Proseminar	
SOC WORK 950	PhD Proseminar	3
or SOC WORK 951	PhD Proseminar	
Spring Semester 1		
Statistics II		3
Social Science Theory		3
SOC WORK 640	Social Work with Ethnic and Racial Groups	2
SOC WORK 947	Student Research Seminar	1
SOC WORK 948	Proseminar	3
SOC WORK 950	PhD Proseminar	3
or SOC WORK 951	PhD Proseminar	
Fall Semester 2		
SOC WORK 400	Field Practice and Integrative Seminar I	4
SOC WORK 441	Generalist Practice with Individuals, Families and Groups	3
SOC WORK 442	Generalist Practice with Communities and Organizations	2
SOC WORK 949	Proseminar	3
Spring Semester 2		
SOC WORK 401	Field Practice and Integrative Seminar II	4
SOC WORK 712	Psychopathology for Social Work Practice in Mental Health	3
SOC WORK 948	Proseminar	3
SOC WORK 952	PhD Proseminar	3
SOC WORK 840	Advanced Macro Practice	2
Fall Semester 3		
SOC WORK 800	Field Practice and Integrative Seminar III ¹	5
Advanced Practice Course ²		
MSW Course Elective ¹		
SOC WORK 949	Proseminar	3
SOC WORK 950	PhD Proseminar	3
or SOC WORK 951	PhD Proseminar	
Spring Semester 4		
SOC WORK 801	Field Practice and Integrative Seminar IV	5
SOC WORK 947	Student Research Seminar	1
SOC WORK 952	PhD Proseminar ²	3
Statistics/Methods or Substantive Course Elective		3
Statistics/Methods or Substantive Course Elective		3
Total Credits		79

¹ May be substituted with a comparable course with permission of the Ph.D. chair.

² Taking SOC WORK 952 PhD Proseminar twice is strongly suggested, but not required.

MSW/Ph.D. in Social Welfare for Students With a BSW

Code	Title	Credits
Fall Semester 1		
Statistics I		3
SOC WORK 946	Faculty Research Seminar	1
SOC WORK 949	Proseminar	3
SOC WORK 950	PhD Proseminar	3
or SOC WORK 951	PhD Proseminar	
Social Science Theory		3
Spring Semester 1		
Statistics II		3
SOC WORK 947	Student Research Seminar	1
SOC WORK 948	Proseminar	3
SOC WORK 950	PhD Proseminar	3
or SOC WORK 951	PhD Proseminar	
SOC WORK 712	Psychopathology for Social Work Practice in Mental Health ¹	3
Fall Semester 2		
SOC WORK 800	Field Practice and Integrative Seminar III	5
Advanced Practice Course ²		2
MSW Course Elective ²		2
SOC WORK 949	Proseminar	3
SOC WORK 950	PhD Proseminar	3
or SOC WORK 951	PhD Proseminar	
Spring Semester 2		
SOC WORK 801	Field Practice and Integrative Seminar IV	5
SOC WORK 840	Advanced Macro Practice ²	2
SOC WORK 947	Student Research Seminar	1
SOC WORK 948	Proseminar	3
SOC WORK 952	PhD Proseminar	3
Fall Semester 3		
Statistics/Methods or Substantive Course Elective		3
Statistics/Methods or Substantive Course Elective		3
Spring Semester 3		
SOC WORK 952	PhD Proseminar ³	3
Total Credits		64

¹ SOC WORK 712 Psychopathology for Social Work Practice in Mental Health may also be taken in the summer before or after Year 1.

² May be substituted with a comparable course with permission of the Ph.D. chair.

³ Taking SOC WORK 952 PhD Proseminar twice is strongly suggested, but not required.

Ph.D.-only

Code	Title	Credits
Fall Semester 1		
Statistics I		3
SOC WORK 605	The Field of Social Work	2
SOC WORK 711	Human Behavior and the Environment	2
SOC WORK 946	Faculty Research Seminar	1

SOC WORK 949	Proseminar	3
SOC WORK 950	PhD Proseminar	3
or SOC WORK 951	PhD Proseminar	
Spring Semester 1		
Statistics II		3
SOC WORK 947	Student Research Seminar	1
SOC WORK 948	Proseminar	3
SOC WORK 950	PhD Proseminar	3
or SOC WORK 951	PhD Proseminar	
SOC WORK 952	PhD Proseminar	3
Fall Semester 2		
Social Science Theory		3
SOC WORK 675	Topics in Contemporary Social Welfare ¹	2
SOC WORK 949	Proseminar	3
SOC WORK 950	PhD Proseminar	3
or SOC WORK 951	PhD Proseminar	
Spring Semester 2		
SOC WORK 947	Student Research Seminar	1
SOC WORK 948	Proseminar	3
SOC WORK 952	PhD Proseminar ²	3
Statistics/Methods or Substantive Course Elective		3
Statistics/Methods or Substantive Course Elective		3
Total Credits		51

¹ The 2-credit internship is intended to introduce students to the profession of social work and practice.

² Taking SOC WORK 952 PhD Proseminar twice is strongly suggested, but not required.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

PROGRAM-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://socwork.wisc.edu/phdguidelines>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

Doctoral students may apply credits obtained in other graduate programs toward the Ph.D. program minimum degree requirement and minimum graduate coursework (50%) requirement. Graduate credits from other institutions may not be used to fulfill the minimum graduate residence credit requirement. Coursework earned 10 or more years prior to

admission to the Ph.D program may not be used to satisfy degree credit minimums.

UW–Madison Undergraduate

Doctoral students cannot use credits obtained as undergraduate students toward the Ph.D. program requirements.

UW–Madison University Special

With program approval, doctoral students may apply up to 15 credits numbered 300 and above obtained as UW–Madison University Special students toward the Ph.D. program minimum graduate residence credit requirement and the minimum graduate degree credit requirement. That coursework may not be applied to the minimum graduate coursework (50%) requirement unless taken at the 700 level or above. Coursework earned 10 or more years prior to admission to the Ph.D program may not be used to satisfy degree credit minimums.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

Every graduate student is required to have an advisor. An advisor is a faculty member, or sometimes a committee, from the major department responsible for providing advice regarding graduate studies. An advisor generally serves as the thesis advisor. In many cases, an advisor is assigned to incoming students. Students can be suspended from the Graduate School if they do not have an advisor.

To ensure that students are making satisfactory progress toward a degree, the Graduate School expects them to meet with their advisor on a regular basis.

A committee often accomplishes advising for the students in the early stages of their studies.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

OTHER

A Joint MSW/Ph.D. option is available for students without an MSW. Students with another master's degree may choose the Joint or Ph.D. only option.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Demonstrate understanding of knowledge of social welfare problems, theories, policies, and programs.
2. Conceptualize and analyze approaches to improving social welfare problems, theories, policies, and programs.
3. Apply advanced quantitative and/or qualitative methodology for social welfare scholarship.
4. Develop knowledge and skills to teach and/or present in professional contexts social welfare-related material.
5. Demonstrate professional and ethical conduct.
6. Create research, scholarship, or programing that enhances social welfare.
7. Develop and demonstrate ethical and professional skills necessary for a career as a social welfare scholar.
8. Teach courses in a program or school of social work.
9. Translate research findings into policy and program practice.

PEOPLE

Faculty: Professors Magnuson (program chair), Berger, Cancian, Greenberg, Kramer, Mailick, Meyer, Robert (school director), Schroeffer, Slack; Associate Professors Curtis, Moses; Assistant Professors Bishop-Fitzpatrick, Charles, Gerassi, Ros Pilarz, Xiong

SOCIAL WORK, MSW

The MSW program (full-time and part-time) is accredited by the Council on Social Work Education (CSWE). Full-time students attending on a full-time basis generally complete the program in two academic years; Part-time students complete it in four. Students from CSWE-accredited undergraduate social work programs may be granted up to one year of advanced standing in the full-time program or up to two years advanced standing in the part-time program for comparable coursework taken prior to enrollment.

MSW PROGRAM GOALS

- To provide students with generalist practice content for entry-level practice that builds upon a liberal arts perspective, reinforces the

mission of the school, and fosters the values, ethics, and purposes of the profession of social work.

- To provide students with advanced generalist practice knowledge, skills, and values in an area of focus to be autonomous social work practitioners prepared to confront the realities of a changing social and human services environment, and to be leaders in the development of new approaches for practice.
- To provide students with a generalist social work framework for practice; foster a commitment to social, economic and environmental justice; and prepare students with the requisite knowledge, skills, and values for culturally competent practice.

The school's curriculum is generalist social work practice in orientation. In their courses across the curriculum, faculty interweave: content about social work values and ethics; content that promotes understanding, affirmation, and respect for people from diverse backgrounds; content on populations-at-risk, including strategies to respond to and strategies to redress risk factors; and content on social, economic and environmental justice grounded in an understanding of distributive justice, human and civil rights, and the global interconnections of oppression.

The generalist practice year curriculum emphasizes direct practice across system sizes (micro-to-macro). Students take courses in social welfare policies and services, human behavior and the social environment (including social work with ethnic and racial groups; and psychopathology for generalist practice), research methods, social work practice (including generalist practice with individuals, families, and groups; and generalist practice with organizations and communities), and a field course that includes a social work practice integrative seminar and social work field placement.

The advanced curriculum offers an advanced generalist specialization with areas of focus in: aging; child, youth, and family welfare; health; and mental health. The advanced generalist specialization requires that students complete an advanced practice course (e.g., advanced practice in health; aging and mental health; interventions with children, youth, and families; psychopathology for social work practice in mental health); a social policies and services course (e.g., child welfare services or child, youth and family policies and services; health, aging, and disability policy and services; mental health policies and services); an advanced macro practice course; and advanced generalist social work field course that includes a social work practice integrative seminar and a social work field placement specific to the student's area of focus.

Individualized subfocus areas are also available and are constructed with assistance from the academic advisors.

SOCIAL WORK COMPETENCIES

At the conclusion the MSW program we expect graduate students to have achieved the following core competencies:

- Demonstrate ethical and professional behavior
- Engage diversity and difference in practice
- Advance human rights and social, economic and environmental justice
- Engage in practice-informed research and research-informed practice
- Engage in policy practice
- Engage with individuals, families, groups, organizations and communities
- Assess individuals, families, groups, organizations and communities

- Intervene with individuals, families, groups, organizations and communities
- Evaluate practice with individuals, families, groups, organizations and communities

At the end of the generalist practice curriculum sequence, students are expected to evidence the identified generalist behaviors for each competency. At the end of the advanced year, students are expected to have achieved the competencies at the generalist and specialist levels through the demonstration of generalist behaviors and advanced generalist behaviors in the advanced generalist specialization with an area of focus learned in classroom and field experiences—all of which are derived from social work knowledge, values, and skills.

SCHOOL SOCIAL WORK AND CLINICAL PRACTICE LICENSURE, CHILD WELFARE TRAINING

Students seeking preparation for licensure as a school social worker in the State of Wisconsin typically complete the child, youth, and family welfare focus area. Students seeking preparation for licensure as a clinical social worker in the State of Wisconsin or State of Minnesota typically complete the mental health focus area. Contact the full-time program social work academic advisors or part-time program advisors (see contact information on the program website (<https://socwork.wisc.edu/facstaff-advising>)) for a complete list of requirements necessary for these credentials. Information on social work certification and licensure is presented to students periodically during the academic year and is detailed in the Advanced Generalist Specialization Handbook (<https://socwork.wisc.edu/files/FTPProgramGuide.pdf>) appendices.

Federal Title IV-E funding is available to full- and part-time MSW students for training in public child welfare. After acceptance into the school, generalist year or advanced practice year students may apply to this special program designed to prepare advanced practitioners for practice in public child welfare. Students complete a specialized curriculum within the child, youth, and family welfare concentration. Students accepted into the training program receive tuition (in- or out-of-state), a book allowance, a mileage allowance, and a monthly stipend each year they are in the program. In return, after graduation, child welfare trainees agree to work in a public child welfare position in the State of Wisconsin for each year they received funding. For complete details, contact the Title IV-E program coordinator (contact information available on the program website (<https://socwork.wisc.edu/facstaff-all>)).

PART-TIME MSW PROGRAM

The part-time MSW program is offered on two sites: the UW–Madison campus (p. 1250) for those in the greater Madison area and on the UW–Eau Claire campus (p. 1247) for those who live in the northwest part of the state. The part-time MSW program is designed to allow students who are not able to pursue full-time study to work toward an MSW degree on a structured, time-extended basis.

- Courses are offered on Saturdays at both sites.
- Fieldwork options may include place of employment.
- Traditional and advanced standing options are offered.
- Focus Areas in: aging, health or health and aging; child, youth and family welfare; or mental health are offered.

Applicants must meet the usual School of Social Work admission requirements to be accepted into the program.

FIELD EDUCATION PROGRAM

Generalist practice year social work students complete two semesters (256 hours per semester) of field work (SOC WORK 400 Field Practice and Integrative Seminar I, SOC WORK 401 Field Practice and Integrative Seminar II) concurrent with their generalist practice coursework, starting in the fall semester. Advanced practice year students complete two semesters (320 hours per semester) of field work (SOC WORK 800 Field Practice and Integrative Seminar III, SOC WORK 801 Field Practice and Integrative Seminar IV) concurrent with their advanced practice concentration coursework, beginning in the fall semester.

The field units are organized around a social problem area, a field of practice, or a major intervention method. Each unit has a range of field placement agencies and settings appropriate to its theme. The emphasis for Social Work 400-level placements is on a generalist perspective and direct practice experience. The focus is on learning and applying analytic and interventive skills within an ethically based, problem-focused approach. Social Work 800-level field emphases are practice from an advanced generalist perspective with either a direct or indirect practice experience. The focus is on autonomous practice and advanced practice knowledge and skills in an area of concentration.

The following field units are available to generalist practice year and/or advanced practice year MSW students in the full time program. These units represent more than 100 placements in agencies and organizations throughout Dane and its contiguous counties.

- Social work practice in community agencies
- Social work practice in community mental health agencies
- Social work practice in county human services
- Social work practice in intellectual and other disabilities
- Social work practice in educational settings
- Social work practice in health
- Social work practice in juvenile and criminal justice systems
- Social work practice in mental health
- Social work practice with older adults
- Social work practice in policy and administration
- Social work practice in public and private child welfare
- Social work practice in public child welfare

Field units offered in the part-time MSW program at both program sites are:

- Social work practice in community agencies
- Social work practice in child and family welfare: public, private and educational settings
- Social work practice in aging and/or health (depending on student demand)
- Social work practice in mental health

Social work applicants should be advised that state statutes require the Department of Justice to conduct background checks on all potential field students prior to the field experience. Information regarding this process is provided to students after they are accepted into the School of Social Work.

ABOUT THE SCHOOL OF SOCIAL WORK

The School of Social Work at UW–Madison is consistently ranked among the best schools of social work in the country. Faculty prepare social work professionals at the bachelor's, master's, and doctoral

levels. Through the preparation of social work practitioners, scholars and educators, faculty and students explore and seek to understand the nature of social problems, their impact on vulnerable populations, and ways to critically analyze and promote the achievement of a just, equitable, healthy, and productive society.

Social work faculty are noted for their scholarly work in developing a conceptual understanding of social work practice and policy, and in producing research in important social problem areas. For example, faculty took a leadership role in the development of the generalist model of practice now used by most social work programs. Faculty members have made valuable research contributions in the fields of aging, child welfare, developmental disabilities, and family and intergenerational caregiving, as well as in educational attainment and life-course decision-making, end-of-life care for older adults and palliative care, health disparities, homelessness, poverty, social policy, welfare reform, and child support. Drawing on strong faculty, excellent students, and the resources of a world-renowned university in a community rich with social and human service programs, there is much to offer prospective students: individualized, faculty-taught field education for master's students, nationally renowned faculty with a strong interdisciplinary focus, and hands-on research training in a highly individualized program of study for doctoral students.

The school offers unique opportunities for students to receive state-of-the-art professional training through its field education program. Student practice opportunities range from experiences in institutional and community-based settings to working with families and other significant care-givers, with individuals and groups, and in policy and service delivery issues.

Mission. The mission of the School of Social Work is to enhance human well-being and promote social and economic justice for people who are disadvantaged to achieve an equitable, healthy, and productive society. The school aims to:

- Create, advance, strengthen, and integrate interdisciplinary knowledge for students and the profession through research, scholarship, and practice.
- Educate students to become highly skilled, culturally competent and ethical practitioners who will provide leadership for the profession of social work within the state of Wisconsin and nationally.
- Promote change at levels ranging from the individual client to national, including empowering communities and populations that are disadvantaged and developing humane service delivery systems.
- Create and disseminate knowledge regarding the prevention and amelioration of social problems.

The School of Social Work is one of five professional schools in the College of Letters and Science. As part of the college, the school maintains relationships with the other social studies and professional schools within the university system through interchange of faculty and students and through joint research and publication endeavors.

ADMISSIONS

Online applications are available through the School of Social Work website (<http://socwork.wisc.edu>).

Admission into the master's degree program includes the Graduate School requirement that applicants hold a minimum undergraduate GPA of 3.0 (on a 4.0 scale) on the equivalent of the last 60 semester

hours (approximately two years of work) from an accredited university or college.

Applicants apply online to through the Graduate School's application site: Graduate School Electronic Application (<https://grad.wisc.edu/apply>). A complete application includes both the Graduate School application and the School of Social Work's supplemental application forms.

In addition to their application forms prospective MSW students submit: reasons for graduate study essay, official transcripts from each university or college attended, the names and e-mail addresses of three persons who will submit letters of recommendation on the applicant's behalf, criminal background check information, and Test of English as a Foreign Language (TOEFL), or International English Language Testing System (IELTS) scores (if applicable). The Graduate Record Exam (GRE) is optional. A School of Social Work admissions committee acceptance recommendation to the Graduate School is required for unconditional admission. Prerequisites for entrance into the MSW program include:

1. completion of 30 semester credits of social science courses at the point the application is submitted; and
2. completion of an approved statistics course with a grade of C or better, taken within seven years prior to entrance into the program.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Master's students are eligible for School of Social Work awards (Federal Training Grants when available, Veterans Administration stipends, Arthur Miles Scholarship, Beebe Memorial Scholarship, Katherine Benz Scholarship, Richard Schwert and Helen I. Clark Memorial Awards, Katherine Becker Norman Memorial Award, Lois Palmer Shimpa Award, and several others). Graduate Opportunity Fellowships are designed to expand graduate education for U.S. minority group members. For complete details regarding qualifications and applications for these awards, see Scholarships, Awards and Fellowships (<http://socwork.wisc.edu/awards>) on the school's website.

All students have access to federal loans and work study.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement Half of degree coursework must be in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements Grades of C are accepted only if they are offset by an equal number of credits of A. Candidates who receive more than two grades of C (in courses that do not extend beyond one term) or a grade of D or F while in the program will be dropped from the MSW Program. Candidates who receive a grade of C in the Field and Integrative Seminar courses may continue only with permission of the faculty and may not offset the grade with a grade of A. (This policy does not apply to grades received for courses taken to meet the statistics prerequisite while in the program).

Assessments and Examinations None.

Language Requirements None.

REQUIRED COURSES

Generalist Practice

First-year MSW students complete generalist/foundation practice courses unless granted an exemption:

Code	Title	Credits
SOC WORK 400	Field Practice and Integrative Seminar I	2-6
SOC WORK 401	Field Practice and Integrative Seminar II	2-6
SOC WORK 441	Generalist Practice with Individuals, Families and Groups	1-3
SOC WORK 442	Generalist Practice with Communities and Organizations	1-2
SOC WORK 605	The Field of Social Work	2
SOC WORK 606	Social Policy	2
SOC WORK 612	Psychopathology in Generalist Social Work Practice	2
SOC WORK 640	Social Work with Ethnic and Racial Groups	2-3
SOC WORK 650	Methods of Social Work Research	2-3
SOC WORK 711	Human Behavior and the Environment	2

In general, generalist practice/ foundation courses must be completed before beginning advanced practice courses.

In a broad social justice framework, advanced practice or advanced standing MSW students complete a generalist advanced practice specialization in one of four social problem areas: (1) Aging; (2) Child, Youth, and Family Welfare; (3) Health; and (4) Mental Health. In addition to their focus area courses, students complete a Macro Practice Elective and two "free electives."

Advanced Generalist Specialization Focus in Aging ¹

Code	Title	Credits
SOC WORK 821	Social Work Practice in Aging and Mental Health	2
SOC WORK 875	Health, Aging, and Disability Policy and Services	2
SOC WORK 840	Advanced Macro Practice	2

Other courses chosen in consultation with advisor.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Advanced Generalist Specialization Focus in Children, Youth and Families ¹

Code	Title	Credits
Required Courses		
SOC WORK 741	Interventions with Children, Youth, and Families	2
SOC WORK 920	Child, Youth, and Family Policies and Services	2-3
	or SOC WORK 921 Child Welfare	
SOC WORK 840	Advanced Macro Practice	2

Other courses chosen in consultation with advisor.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Advanced Generalist Specialization Focus in Health ¹

Code	Title	Credits
Required Courses		
SOC WORK 873	Social Work Practice in Health Care	2
SOC WORK 875	Health, Aging, and Disability Policy and Services	2
SOC WORK 840	Advanced Macro Practice	2

Other courses chosen in consultation with advisor.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Advanced Generalist Specialization Focus in Mental Health ¹

Code	Title	Credits
Required Courses		
SOC WORK 835	Advanced Soc Work Practice in Mental Health	1-2
SOC WORK 836	Mental Health Policies and Services	2-3
SOC WORK 840	Advanced Macro Practice	2

Other courses chosen in consultation with advisor.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

NAMED OPTIONS (SUB-MAJORS)

A named option is a formally documented sub-major within an academic major program. Named options appear on the transcript with degree conferral.

- Social Work: Part Time MSW Eau Claire, MSW (p. 1247)

- Social Work: Part Time MSW Madison, MSW (p. 1250)

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://socwork.wisc.edu/files/FTPProgramGuide.pdf>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

Graduate credits in equivalent foundation/generalist courses completed with a grade of B or better taken at CSWE-accredited MSW programs may be used to fulfill the Minimum Degree Credit Requirement. In general, coursework earned five or more years prior to admission to the MSW Program may not be used to satisfy degree credit minimums. Graduate credits from other MSW programs/institutions may not be used to fulfill the Minimum Residence Credit Requirement.

UW–Madison Undergraduate

MSW students who have received BSWs from CSWE accredited programs may count 7 credits of their undergraduate coursework in the BSW program. UW–Madison BSWs may count only those courses numbered 300 or above toward their minimum graduate degree credit requirement. Coursework earned five or more years prior to admission to the MSW program may not be used to satisfy credit requirements.

UW–Madison University Special

On a case-by-case basis Generalist/Foundation Social Work courses numbered 300 or above taken as a UW–Madison Special student may be used to fulfill degree requirements. No more than 15 credits generalist/foundation credits may be used for this purpose.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

All master's candidates are assigned to the social work academic advisors.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Full-Time Program students matriculating through the Full-Time MSW program on a part-time basis must enroll in a minimum of two courses each semester and complete one full-time semester of at least 8 credits. Candidates who withdraw from the Full-Time Program without having completed at least 8 credits must reapply for admission to the program. Students who withdraw from the Part-Time MSW Program without having completed at least 6 credits must reapply for admission to the Part-Time Program.

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Title IV-E Public Child Welfare Traineeships are available to Full-Time and Part-Time MSW Program students.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Engage diversity and difference in practice.
2. Advance human rights and social, economic, and environmental justice.
3. Engage in practice-informed research and research-informed practice.
4. Engage in policy practice.
5. Engage with individuals, families, groups, organizations, and communities.
6. Assess individuals, families, groups, organizations, and communities.
7. Demonstrate ethical and professional behavior.
8. Intervene with individuals, families, groups, organizations, and communities.
9. Evaluate practice with individuals, families, groups, organizations, and communities.

PEOPLE

Faculty: Professors Robert (director), Berger, Brower, Cancian, Greenberg, Kramer, Magnuson, Mailick, Meyer, Schroepfer, Shook Slack; Associate Professors Curtis, Moses; Assistant Professors Bishop-Fitzpatrick, Charles, Gerassi, Ros Pilarz, Xiong; Clinical Associate Professors Conn, Smith; Clinical Assistant Professors Dresser, Ngola, Studer, Willits.

A complete list of all faculty and staff in the school is available here (<https://socwork.wisc.edu/facstaff-all>).

ACCREDITATION

Accreditation

Council on Social Work Education (<https://www.cswe.org/Accreditation>)

Accreditation status: Accredited. Next accreditation review: 2021.

Certification/Licensure

Association of Social Work Boards (<https://www.aswb.org>)

SOCIAL WORK: PART TIME MSW EAU CLAIRE, MSW

This is a named option in the Social Work MSW (p. 1242).

The part-time MSW program is offered on two sites: the UW–Madison campus (p. 1250) for those in the greater Madison area and on the UW–Eau Claire campus for those who live in the northwest part of the state. The part-time MSW program is designed to allow students who are not able to pursue full-time study to work toward an MSW degree on a structured, time-extended basis.

- Courses are offered on Saturdays at both sites.
- Fieldwork options may include place of employment.
- Traditional and advanced standing options are offered.
- Focus Areas in: aging, health or health and aging; child, youth and family welfare; or mental health are offered.

Applicants must meet the usual School of Social Work admission requirements to be accepted into the program.

ADMISSIONS

Online applications are available through the School of Social Work website (<http://socwork.wisc.edu>).

Effective September 1, 2018, admission to the Part-Time MSW Program-Eau Claire site is limited to those who qualify for Advanced Standing in our program; that is, we are admitting only students who hold a BSW from a CSWE accredited institution and who, are eligible for exemptions for all program prerequisites and the majority of "generalist year" courses. The Madison site will continue to admit students into both the Generalist (4 Year Program) and Advanced (2 Year Program) tracks.

Admission into the master's degree program includes the Graduate School requirement that applicants hold a minimum undergraduate GPA of 3.0 (on a 4.0 scale) on the equivalent of the last 60 semester hours (approximately two years of work) from an accredited university or college.

Applicants apply online to through the Graduate School's application site: Graduate School Electronic Application (<https://grad.wisc.edu/apply>). A complete application includes both the Graduate School application and the School of Social Work's supplemental application forms.

In addition to their application forms prospective MSW students submit: reasons for graduate study essay, official transcripts from each university or college attended, the names and e-mail addresses of three persons who will submit letters of recommendation on the applicant's behalf, criminal background check information, and Test of English as a Foreign Language (TOEFL), or International English Language Testing System (IELTS) scores (if applicable). The Graduate Record Exam (GRE) is optional. A School of Social Work admissions committee acceptance recommendation to the Graduate School is required for unconditional admission. Prerequisites for entrance into the MSW program include:

1. completion of 30 semester credits of social science courses at the point the application is submitted; and
2. completion of an approved statistics course with a grade of C or better, taken within seven years prior to entrance into the program.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Students enrolled in this program are not permitted to accept teaching assistantships, project assistantships, research assistantships, or other appointments **that would result in a tuition waiver**.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/Weekend	Online	Hybrid	Accelerated
Yes	Yes	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements Grades of C are accepted only if they are offset by an equal number of credits of A. Candidates who receive more than two grades of C (in courses that do not extend beyond one term) or a grade of D or F while in the program will be dropped from the MSW Program. Candidates who receive a grade of C in the Field and Integrative Seminar courses may continue only with permission of the faculty and may not offset the grade with a grade of A. (This policy does not apply to grades received for courses taken to meet the statistics prerequisite while in the program).

Assessments and Examinations None.

Language Requirements None.

REQUIRED COURSES

First-year MSW students complete generalist/foundation practice courses unless granted an exemption:

Code	Title	Credits
SOC WORK 400	Field Practice and Integrative Seminar I	2-6
SOC WORK 401	Field Practice and Integrative Seminar II	2-6
SOC WORK 441	Generalist Practice with Individuals, Families and Groups	1-3

SOC WORK 442	Generalist Practice with Communities and Organizations	1-2
SOC WORK 605	The Field of Social Work	2
SOC WORK 606	Social Policy	2
SOC WORK 612	Psychopathology in Generalist Social Work Practice	2
SOC WORK 640	Social Work with Ethnic and Racial Groups	2-3
SOC WORK 650	Methods of Social Work Research	2-3
SOC WORK 711	Human Behavior and the Environment	2

In general, generalist practice/ foundation courses must be completed before beginning advanced practice courses.

In a broad social justice framework, advanced practice (students continuing from the Generalist years) or advanced standing (students entering the Program with a recent BSW) MSW students complete a generalist advanced practice specialization in a social problem focus areas. In addition to their focus area courses, students complete three free electives.

Aging Focus Area ¹

Code	Title	Credits
Required Courses		
SOC WORK 821	Social Work Practice in Aging and Mental Health	2
SOC WORK 875	Health, Aging, and Disability Policy and Services	2
SOC WORK 840	Advanced Macro Practice	2

Other courses chosen in consultation with advisor.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Child, Youth, and Family Welfare Focus Area ¹

Code	Title	Credits
Required Courses		
SOC WORK 741	Interventions with Children, Youth, and Families	2
SOC WORK 920	Child, Youth, and Family Policies and Services	2
SOC WORK 840	Advanced Macro Practice	2

Other courses chosen in consultation with advisor.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Health Focus Area ¹

Code	Title	Credits
Required Courses		
SOC WORK 873	Social Work Practice in Health Care	2
SOC WORK 875	Health, Aging, and Disability Policy and Services	2
SOC WORK 840	Advanced Macro Practice	2

Other courses chosen in consultation with advisor.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Mental Health Focus Area ¹

Code	Title	Credits
Required Courses		
SOC WORK 835	Advanced Soc Work Practice in Mental Health	1-2
SOC WORK 836	Mental Health Policies and Services	2-3
SOC WORK 840	Advanced Macro Practice	2

Other courses chosen in consultation with advisor.

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

NAMED OPTION-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://socwork.wisc.edu/files/part-time/PTPStudentGuidebook.pdf>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

Graduate credits in equivalent foundation/generalist courses completed with a grade of B or better taken at CSWE-accredited MSW programs may be used to fulfill the Minimum Degree Credit Requirement. In general, coursework earned five or more years prior to admission to the MSW Program may not be used to satisfy degree credit minimums. Graduate credits from other MSW programs/institutions may not be used to fulfill the Minimum Residence Credit Requirement.

UW-Madison Undergraduate

MSW students who have received BSWs from CSWE accredited programs may count 7 credits of their undergraduate coursework in the BSW program. UW-Madison BSWs may count only those courses numbered 300 or above toward their minimum graduate degree credit requirement. Coursework earned five or more years prior to admission to the MSW program may not be used to satisfy credit requirements.

UW–Madison University Special

On a case-by-case basis Generalist/Foundation Social Work courses numbered 300 or above taken as a UW–Madison Special student may be used to fulfill degree requirements. No more than 15 credits generalist/foundation credits may be used for this purpose.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

All master's candidates are assigned to the social work academic advisors.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Students who withdraw from the Part-Time MSW Program without having completed at least 6 credits must reapply for admission to the Part-Time Program.

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Title IV-E Public Child Welfare Traineeships are available to Full-Time and Part-Time MSW Program students. Students enrolled in this program are not permitted to accept teaching assistantships, project assistantships, research assistantships, or other appointments **that would result in a tuition waiver**. Students are also not permitted to enroll in double or dual degree programs.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PEOPLE

Faculty: Professors Robert (director), Berger, Brower, Cancian, Greenberg, Kramer, Magnuson, Mailick, Meyer, Schroeffer, Shook Slack; Associate Professors Curtis, Moses; Assistant Professors Bishop-Fitzpatrick, Charles, Gerassi, Ros Pilarz, Xiong; Clinical Associate Professors Conn, Smith; Clinical Assistant Professors Dresser, Ngola, Studer, Willits. A complete list of all faculty and staff in the school is available here (<https://socwork.wisc.edu/facstaff-all>).

SOCIAL WORK: PART TIME MSW MADISON, MSW

This is a named option in the Social Work MSW (p. 1242).

The part-time MSW program is offered on two sites: the UW–Madison campus for those in the greater Madison area and on the UW–Eau Claire campus (p. 1247) for those who live in the northwest part of the state. The part-time MSW program is designed to allow students who are not able to pursue full-time study to work toward an MSW degree on a structured, time-extended basis.

- Courses are offered on Saturdays at both sites.
- Fieldwork options may include place of employment.
- Traditional and advanced standing options are offered.
- Focus Areas in: aging, health or health and aging; child, youth and family welfare; or mental health are offered.

Applicants must meet the usual School of Social Work admission requirements to be accepted into the program.

ADMISSIONS

Online applications are available through the School of Social Work website (<http://socwork.wisc.edu>).

Effective September 1, 2018, admission to the Part-Time MSW Program–Eau Claire site is limited to those who qualify for Advanced Standing in our program; that is, we are admitting only students who hold a BSW from a CSWE accredited institution and who, are eligible for exemptions for all program prerequisites and the majority of "generalist year" courses. The Madison site will continue to admit students into both the Generalist (4 Year Program) and Advanced (2 Year Program) tracks.

Admission into the master's degree program includes the Graduate School requirement that applicants hold a minimum undergraduate GPA of 3.0 (on a 4.0 scale) on the equivalent of the last 60 semester hours (approximately two years of work) from an accredited university or college.

Applicants apply online through the Graduate School's application site: Graduate School Electronic Application (<https://grad.wisc.edu/apply>). A complete application includes both the Graduate School application and the School of Social Work's supplemental application forms.

In addition to their application forms prospective MSW students submit: reasons for graduate study essay, official transcripts from each university or college attended, the names and e-mail addresses of three persons who will submit letters of recommendation on the applicant's behalf, criminal background check information, and Test of English as a Foreign Language (TOEFL), or International English Language Testing System (IELTS) scores (if applicable). The Graduate Record Exam (GRE) is optional. A School of Social Work admissions committee acceptance recommendation to the Graduate School is required for unconditional admission. Prerequisites for entrance into the MSW program include:

1. completion of 30 semester credits of social science courses at the point the application is submitted; and
2. completion of an approved statistics course with a grade of C or better, taken within seven years prior to entrance into the program.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Students enrolled in this program are not permitted to accept teaching assistantships, project assistantships, research assistantships, or other appointments **that would result in a tuition waiver**.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	Yes	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the

advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements Grades of C are accepted only if they are offset by an equal number of credits of A. Candidates who receive more than two grades of C (in courses that do not extend beyond one term) or a grade of D or F while in the program will be dropped from the MSW Program. Candidates who receive a grade of C in the Field and Integrative Seminar courses may continue only with permission of the faculty and may not offset the grade with a grade of A. (This policy does not apply to grades received for courses taken to meet the statistics prerequisite while in the program).

Assessments and Examinations None.

Language Requirements None.

REQUIRED COURSES

First-year MSW students complete generalist/foundation practice courses unless granted an exemption:

Code	Title	Credits
SOC WORK 400	Field Practice and Integrative Seminar I	2-6
SOC WORK 401	Field Practice and Integrative Seminar II	2-6
SOC WORK 441	Generalist Practice with Individuals, Families and Groups	1-3
SOC WORK 442	Generalist Practice with Communities and Organizations	1-2
SOC WORK 605	The Field of Social Work	2
SOC WORK 606	Social Policy	2
SOC WORK 612	Psychopathology in Generalist Social Work Practice	2
SOC WORK 640	Social Work with Ethnic and Racial Groups	2-3
SOC WORK 650	Methods of Social Work Research	2-3
SOC WORK 711	Human Behavior and the Environment	2

In general, generalist practice/ foundation courses must be completed before beginning advanced practice courses.

In a broad social justice framework, advanced practice (students continuing from the Generalist years) or advanced standing (students entering the Program with a recent BSW) MSW students complete a generalist advanced practice specialization in a social problem focus areas. In addition to their focus area courses, students complete three free electives.

Aging Focus Area ¹

Code	Title	Credits
Required Courses		
SOC WORK 821	Social Work Practice in Aging and Mental Health	2
SOC WORK 875	Health, Aging, and Disability Policy and Services	2
SOC WORK 840	Advanced Macro Practice	2
Other courses chosen in consultation with advisor.		

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Aging & Health Focus Area ¹

(Available at Madison location only)

Code	Title	Credits
Required Courses		
SOC WORK 821 & SOC WORK 873	Social Work Practice in Aging and Mental Health and Social Work Practice in Health Care	4
SOC WORK 875	Health, Aging, and Disability Policy and Services	2
SOC WORK 840	Advanced Macro Practice	2
Other courses chosen in consultation with advisor.		

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Child, Youth, and Family Welfare Focus Area ¹

Code	Title	Credits
Required Courses		
SOC WORK 741	Interventions with Children, Youth, and Families	2
SOC WORK 920	Child, Youth, and Family Policies and Services	2
SOC WORK 840	Advanced Macro Practice	2
Other courses chosen in consultation with advisor.		

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Health Focus Area ¹

Code	Title	Credits
Required Courses		
SOC WORK 873	Social Work Practice in Health Care	2
SOC WORK 875	Health, Aging, and Disability Policy and Services	2
SOC WORK 840	Advanced Macro Practice	2
Other courses chosen in consultation with advisor.		

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Mental Health Focus Area ¹

Code	Title	Credits
Required Courses		
SOC WORK 835	Advanced Soc Work Practice in Mental Health	1-2
SOC WORK 836	Mental Health Policies and Services	2-3
SOC WORK 840	Advanced Macro Practice	2
Other courses chosen in consultation with advisor.		

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

NAMED OPTION-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://socwork.wisc.edu/files/part-time/PTPStudentGuidebook.pdf>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

Graduate credits in equivalent foundation/generalist courses completed with a grade of B or better taken at CSWE-accredited MSW programs may be used to fulfill the Minimum Degree Credit Requirement. In general, coursework earned five or more years prior to admission to the MSW Program may not be used to satisfy degree credit minimums. Graduate credits from other MSW programs/institutions may not be used to fulfill the Minimum Residence Credit Requirement.

UW-Madison Undergraduate

MSW students who have received BSWs from CSWE accredited programs may count 7 credits of their

undergraduate coursework in the BSW program. UW–Madison BSWs may count only those courses numbered 300 or above toward their minimum graduate degree credit requirement. Coursework earned five or more years prior to admission to the MSW program may not be used to satisfy credit requirements.

UW–Madison University Special

On a case-by-case basis Generalist/Foundation Social Work courses numbered 300 or above taken as a UW–Madison Special student may be used to fulfill degree requirements. No more than 15 credits generalist/foundation credits may be used for this purpose.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

All master's candidates are assigned to the social work academic advisors.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Students who withdraw from the Part-Time MSW Program without having completed at least 6 credits must reapply for admission to the Part-Time Program.

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Title IV-E Public Child Welfare Traineeships are available to Full-Time and Part-Time MSW Program students. Students enrolled in this program are not permitted to accept teaching assistantships, project assistantships, research assistantships, or other appointments **that would result in a tuition waiver**. Students are also not permitted to enroll in double or dual degree programs.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PEOPLE

Faculty: Professors Robert (director), Berger, Brower, Cancian, Greenberg, Kramer, Magnuson, Mailick, Meyer, Schroepfer, Shook Slack; Associate Professors Curtis, Moses; Assistant Professors Bishop-Fitzpatrick,

Charles, Gerassi, Ros Pilarz, Xiong; Clinical Associate Professors Conn, Smith; Clinical Assistant Professors Dresser, Ngola, Studer, Willits. A complete list of all faculty and staff in the school is available here (<https://socwork.wisc.edu/facstaff-all>).

SOCIOLOGY

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Science and Technology Studies, Doctoral Minor (p. 1253)
- Sociology, Doctoral Minor (p. 1254)
- Sociology, M.S. (p. 1254)
- Sociology, Ph.D. (p. 1257)

PEOPLE

Faculty: Professors Raymo (chair, Sociology), Green (chair, Community & Environmental Sociology), Bell, Borman (affiliated), Carlson, Collins, Elwert, Emirbayer, Ermakoff, Ferree, Fletcher, Freeland, Friedland (affiliated), Fujimura, Gerber, Goldberg, Grodsky, Herd, Logan, Massoglia (director, Graduate Studies), Maynard, Montgomery, Morales (affiliated), Nordheim (affiliated), Oliver, Rogers (director, COWS), Schaeffer (director, UWSC), Schwartz, Seidman, Stoecker, Thornton (affiliated), Tigges, Wright; Associate Professors Alatout, Christens (affiliated), Curtis, Feinstein, Grant, Higgins (affiliated), Lim, Nobles, Shoemaker (affiliated); Assistant Professors Addo (affiliated), Conti, Engelman, Garoon, Goffman, Halpern-Meekin (affiliated), Leachman (affiliated), Light, O'Brien (affiliated), Simmons (affiliated), White, Xiong (affiliated)

SCIENCE AND TECHNOLOGY STUDIES, DOCTORAL MINOR

Science and technology studies integrates knowledge about science, technology, and medicine with society, culture, and the economy. This interdisciplinary field of study incorporates a broad base of scholarship to provide a nuanced picture of science and technology as human enterprises, situated in wider historical, social, and cultural contexts.

The science and technology studies (STS) program offers a doctoral minor.

The doctoral minor in STS is offered to graduate students who are candidates for a doctoral degree in another department or program. The STS doctoral minor provides graduate students with an integrated program of interdisciplinary training in science and technology studies. The minor is open to students in all campus departments, including the humanities, social sciences, natural sciences, and engineering. The program is oriented toward helping students use insights from STS in their research and teaching.

REQUIREMENTS

All graduate students who are interested in the doctoral minor in STS should consult as soon as possible with the director of the Holtz Center for Science and Technology Studies. Graduate students will work with

the director to choose an adviser from the center's affiliated faculty members. The advisor will assist in planning the student's program of education.

Completion of the course requirements must be arranged in close consultation with the student's Holtz Center affiliated advisor and assistant director.

The minor requires at least 9 credits. Students working on an STS minor are required to take one core graduate seminar, STS 901 Science, Technology and Medicine in Society, which introduces students to the perspectives on science, technology, and society that transcend any single discipline. In addition, students in the Ph.D. minor are required to complete a set of thematic courses (amounting to 6–9 credits) outside of the student's major field of study. The course of study must consist of classes from at least two different departments. These courses will serve to promote each student's interdisciplinary understanding of the relationship between science/technology and society/culture. Students are required to achieve a grade of B or better in each course. Students pursuing the minor are also expected to attend the biweekly STS brown bag seminar, as well as frequent the STS speaker series and other Holtz Center events.

Students may request the inclusion of courses not on the approved list. An example is a relevant topics course. The request must be in writing and must include a copy of the course syllabus. All requests should be sent to the center director.

PEOPLE

Faculty: Please visit the program website (<https://sts.wisc.edu/members/member-infobios>) for a comprehensive list of participating faculty.

SOCIOLOGY, DOCTORAL MINOR

Sociology involves the development and application of theoretical insights and empirical evidence regarding human behavior as social beings, focusing on how social life works, what causes social change, and why humans behave in the ways they do. The discipline focuses on social interactions and social processes at the individual, group, state, and global levels. The Department of Sociology trains doctoral students to become outstanding social scientists working in academia, government, the nonprofit sector, and private industry. Students develop a broad understanding of major theories, methodologies, and research findings in the sociological literature. Ph.D. students will advance the contributions of sociological study to society by conducting research that explores complex ideas, analyzes quantitative and qualitative data, and disseminates new knowledge. In so doing, they will contribute to the vast body of scholarship and applied work that leads to the improvement of society.

ADMISSIONS

For more information, contact: Charlotte Frasca, 8127 Social Science Building, 608-262-3805, frascona@ssc.wisc.edu.

REQUIREMENTS

An Option A minor in Sociology is composed of 9 credits of graduate-level coursework in either the Department of Sociology or the Department of Community and Environmental Sociology. The departments do not require students to take specific courses; instead, students are encouraged to meet with the sociology graduate advisor to discuss their interests and goals and to find out which courses may be useful to them and when they are likely to be offered. Students may enroll in any graduate-only courses (i.e., those numbered 700–999) with the exception of SOC 700 Introductory Proseminar for Graduate Students and SOC 990 Thesis. They may also enroll in any of the advanced graduate-undergraduate courses (i.e., those numbered 300–699) that are either specifically designed for graduate students or assess graduate students separately from undergrads. Such courses carry this designation in the Course Guide: **Graduate 50%: Y.**

PEOPLE

Faculty: Professors Raymo (chair, Sociology), Green (chair, Community & Environmental Sociology), Bell, Borman (affiliated), Carlson, Collins, Elwert, Emirbayer, Ermakoff, Ferree, Fletcher, Freeland, Friedland (affiliated), Fujimura, Gerber, Goldberg, Grodsky, Herd, Logan, Massoglia (director, Graduate Studies), Maynard, Montgomery, Morales (affiliated), Nordheim (affiliated), Oliver, Rogers (director, COWS), Schaeffer (director, UWSC), Schwartz, Seidman, Stoecker, Thornton (affiliated), Tigges, Wright; Associate Professors Alatout, Christens (affiliated), Curtis, Feinstein, Grant, Higgins (affiliated), Lim, Nobles, Shoemaker (affiliated); Assistant Professors Addo (affiliated), Conti, Engelman, Garoon, Goffman, Halpern-Meehin (affiliated), Leachman (affiliated), Light, O'Brien (affiliated), Simmons (affiliated), White, Xiong (affiliated)

SOCIOLOGY, M.S.

The Department of Sociology and the Department of Community and Environmental Sociology conduct a combined graduate program in sociology designed to prepare students for scholarly research, teaching, or applied work. The program leads to the Master of Science degree with a major in sociology and the Doctor of Philosophy degree in sociology. It also offers a minor to students earning a doctoral degree in other departments. All major areas of sociological inquiry are represented in the curriculum. The program consistently ranks at or near the top in studies of U.S. doctoral programs.

Distinguished faculty, outstanding students who learn from and support each other, an increasingly multi-ethnic student body, a curriculum covering a broad spectrum of sociological interests, thriving research projects in many areas, and a stimulating campus environment make UW–Madison an excellent choice for students interested in sociology and/or community and environmental sociology.

Members of the departments also participate in a number of interdisciplinary programs. Faculty and students are involved with several research institutes, including the Applied Population Laboratory, the Center for Demography & Ecology, the Center for Demography of Health & Aging, the Center for Integrated Agricultural Systems, the Center on Wisconsin Strategy, the Holtz Center for Science & Technology Studies, the Institute for Research on Poverty, the Institute on Aging, the Nelson Institute for Environmental Studies, the Wisconsin

Center for Education Research, and the University of Wisconsin Survey Center. Further information about faculty and areas of study is available on the department websites: Department of Sociology (<http://www.ssc.wisc.edu/soc>), and Department of Community and Environmental Sociology (<http://dces.wisc.edu>).

Degrees and Career Goals

The sociology graduate program admits students who intend to earn a Ph.D. Students complete a master of science degree on the way to the Ph.D. or receive a waiver of the program's master's requirements based on their having written a thesis and obtained a master's degree previously. A few students leave the program after completing the master's degree and pursue careers in the public and private sectors. Of those who graduate with the Ph.D., a majority obtain university teaching and/or research positions; others take research and/or administrative positions in government organizations, nonprofit organizations, or private firms.

ADMISSIONS

This master's program is offered only for work leading to the Ph.D. There is a very strong preference for students planning to pursue a doctoral degree; students whose goal is a master's are rarely admitted. Because students should apply to the doctoral program, please see the admissions information for the Sociology Ph.D. (p. 1258)

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.25 GPA required (3.00 in the first semester)

Other Grade Requirements Students must earn a BC or above in all required courses. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.

Assessments and Examinations Master's students write a thesis under the supervision of their major professor. After completing the thesis, students take a comprehensive oral exam covering general sociology, graduate work to date, and the thesis.

Occasionally students decide not to pursue the Ph.D. and opt to complete the requirements for a non-thesis Master's degree. In these rare cases, students complete course requirements and take the comprehensive oral exam.

Language Requirements No language requirements.

REQUIRED COURSES

Code	Title	Credits
SOC 700	Introductory Proseminar for Graduate Students	1
SOC/C&E SOC 361	Statistics for Sociologists II	3
SOC 773	Intermediate Classical Theory	3

Select one of the following:	3
SOC 735	Ethnomethodology & Conversation Analysis
SOC/ C&E SOC 750	Research Methods in Sociology
SOC 751	Survey Methods for Social Research
SOC 753	Comparative and Historical Methods in Sociology
SOC 754	Qualitative Research Methods in Sociology
SOC 756	Demographic Techniques II

years prior to admission to the Master's program may not be used to satisfy either of these requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With Program approval, students may count up to 14 credits of graduate coursework from other institutions toward the minimum 30-credit Master's degree requirement and the minimum 50% graduate coursework requirement. Coursework completed five or more years prior to admission to the Master's program may not be used to satisfy either of these requirements.

UW–Madison Undergraduate

With program approval, students may count up to 7 credits earned in an undergraduate degree program at UW–Madison toward the Master's degree requirements. If the courses are numbered 300–699, the credits may count toward the minimum 30-credit degree requirement. If the courses are numbered 700–999, the credits may also count toward the minimum 50% graduate coursework requirement. Coursework completed five or more years prior to admission to the Master's program may not be used to satisfy either of these requirements.

UW–Madison University Special

With program approval, students may count up to 15 credits taken as a Special Student toward the Master's degree requirements. If the courses are numbered 300–699, the credits may count toward the minimum 30-credit degree requirement. If the courses are numbered 700–999, the credits may also count toward the minimum 50% graduate coursework requirement. Coursework completed five or more

ADVISOR / COMMITTEE

Each new graduate student is matched with a first-year faculty advisor who shares his or her research interests. The first-year advisor helps with the transition to graduate school, offers an introduction to department culture, provides a structured point of contact should questions or problems arise, and provides information and support as the student selects a permanent advisor and thesis director. Students are expected to have ongoing contact with their advisor. All students are required to submit a yearly progress report that is read and discussed by a committee of faculty during the annual review. In addition, all students are expected to create and regularly update an Individual Development Plan (IDP) and use it as the basis for conversations with their advisor about evolving goals, current strengths, and plans for mastery of new skills. A student's advisor serves as chair of the thesis committee, which is composed of three graduate faculty members in Sociology and/or Community & Environmental Sociology.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Students are expected to complete the Master's degree by the end of the summer after their third year in the program.

OTHER

The Department guarantees five continuous years of funding to all admitted students. Our graduate students receive support toward their studies through project assistantships, research assistantships, teaching assistantships, lectureships, traineeships, and fellowships (fellowship awards may come from either the University or external agencies). All types of funding provide a full tuition remission, a stipend, and health insurance.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Demonstrate a broad understanding of major theories, methodologies, and research findings in the sociological literature. Develop critical thinking skills that empower them to analyze strengths and weaknesses in the existing literature, identify knowledge gaps, evaluate evidence, synthesize information, and form conclusions. Attain the skills necessary to conduct research with intellectual and ethical rigor, care, and creativity.
2. Complete an original research project in one of the subfields of sociology. In doing so, they will learn to formulate ideas and develop research questions, interpret and evaluate existing literature on the topic, design a feasible research project, use an appropriate methodology, analyze and interpret the resulting data, and consider avenues for future research. Write a thesis describing their research project and defend it during a comprehensive oral exam.
3. Develop an understanding of the field of sociology by participating in a required introductory proseminar as well as completing required courses in sociological theory, research methods, and statistics along with elective courses in their area of interest. Demonstrate their understanding by working as teaching assistants, project assistants, research assistants, and trainees; by presenting work-in-progress at informal brownbag colloquia; by preparing and submitting manuscripts resulting from their research for publication in respected journals; and by submitting papers for presentation at professional conferences.
4. Retrieve, interpret, and evaluate social science literature and use it, along with their own understanding of relevant methodologies, to employ the most appropriate methods and practices in their own research.
5. Develop analytical thinking skills that enable them to evaluate information pertinent to their research questions. Develop the breadth of knowledge and experience that empowers them to synthesize disparate information and use the resulting synthesis to respond creatively to challenges in their field of study.
6. Communicate in a clear, organized, engaging manner, using language, methods, and critical tools appropriate to the social sciences. Learn to develop grant proposals; gather, manage, and analyze data; write a thesis that is thought-provoking, concise, and persuasive; present research informatively; listen with care and patience; and give and receive feedback orally and in writing.
7. Understand, recognize, and apply principles of ethical and professional conduct by developing effective relationships with faculty mentors, graduate student colleagues, and the undergraduate students whom they teach. Design research, collect and analyze data, and interpret and report results with honesty and scientific rigor.

PEOPLE

Faculty: Professors Raymo (chair, Sociology), Green (chair, Community & Environmental Sociology), Bell, Borman (affiliated), Carlson, Collins, Elwert, Emirbayer, Ermakoff, Ferree, Fletcher, Freeland, Friedland (affiliated), Fujimura, Gerber, Goldberg, Grodsky, Herd, Logan, Massoglia (director, Graduate Studies), Maynard, Montgomery, Morales (affiliated), Nordheim (affiliated), Oliver, Rogers (director, COWS), Schaeffer (director, UWSC), Schwartz, Seidman, Stoecker, Thornton (affiliated), Tigges, Wright; Associate Professors Alatout, Christens (affiliated), Curtis, Feinstein, Grant, Higgins (affiliated), Lim, Nobles, Shoemaker (affiliated); Assistant Professors Addo (affiliated), Conti, Engelman, Garoon, Goffman, Halpern-Meeke (affiliated), Leachman (affiliated), Light, O'Brien (affiliated), Simmons (affiliated), White, Xiong (affiliated)

SOCIOLOGY, PH.D.

The Department of Sociology and the Department of Community and Environmental Sociology conduct a combined graduate program in sociology designed to prepare students for scholarly research, teaching, or applied work. The program leads to the Master of Science degree with a major in sociology and the Doctor of Philosophy degree in sociology. It also offers a minor to students earning a doctoral degree in other departments. All major areas of sociological inquiry are represented in the curriculum. The program consistently ranks at or near the top in studies of U.S. doctoral programs.

Distinguished faculty, outstanding students who learn from and support each other, an increasingly multi-ethnic student body, a curriculum covering a broad spectrum of sociological interests, thriving research projects in many areas, and a stimulating campus environment make UW–Madison an excellent choice for students interested in sociology and/or community and environmental sociology.

Members of the departments also participate in a number of interdisciplinary programs. Faculty and students are involved with several research institutes, including the Applied Population Laboratory, the Center for Demography & Ecology, the Center for Demography of Health & Aging, the Center for Integrated Agricultural Systems, the Center on Wisconsin Strategy, the Holtz Center for Science & Technology Studies, the Institute for Research on Poverty, the Institute on Aging, the Nelson Institute for Environmental Studies, the Wisconsin Center for Education Research, and the University of Wisconsin Survey Center. Further information about faculty and areas of study is available on the department websites: Department of Sociology (<http://www.ssc.wisc.edu/soc>), and Department of Community and Environmental Sociology (<http://dces.wisc.edu>).

DEGREES AND CAREER GOALS

The sociology graduate program admits students who intend to earn a Ph.D. Students complete a Master of Science degree on the way to the Ph.D. or receive a waiver of the program's master's requirements based on their having written a thesis and obtained a master's degree previously. A few students leave the program after completing the master's degree and pursue careers in the public and private sectors. Of those who graduate with the Ph.D., a majority obtain university teaching and/or research positions; others take research and/or administrative

positions in government organizations, non-profit organizations, or private firms.

ADMISSIONS

The program receives a large number of applications each fall from highly qualified individuals, requiring the admissions committee to be extremely selective. There is a very strong preference for students planning to pursue a Ph.D.; students whose goal is a master's are rarely accepted. A cohort of approximately 20 students is ideal, in terms of providing mentoring and training to all admitted students as well as making financial support available to them. Total graduate enrollment in the program is roughly 140 students. An undergraduate major in sociology is not a prerequisite. The admissions committee conducts a holistic assessment of each applicant's qualifications. Faculty members look for academic excellence as indicated by undergraduate GPA and Graduate Record Exam (GRE) scores, a writing sample, and references, along with interest in and motivation for graduate study in sociology as indicated by the statement of purpose. (Note that a weakness in one indicator can be balanced by evidence of strong abilities in others.) In particular, committee members look for students with the ability or potential to define a research question succinctly and to use empirical evidence to address significant sociological issues. They also make an effort to identify individuals who demonstrate the potential for a creative approach to investigating empirical and conceptual social science issues.

To apply, please submit an online application, all transcripts, a statement of reasons for graduate study, writing sample, recommendations, and tests scores. GRE scores (general test only) are required of all applicants; international applicants are required to submit English Proficiency test scores—either TOEFL, MELAB, or IELTS—as well. The application deadline is December 15 for the subsequent academic year.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

The departments guarantee five continuous years of funding to all incoming students. Sources of funding include teaching assistantships, project assistantships, research assistantships, traineeships, and fellowships. In addition, some admitted students arrive with outside fellowships such as National Science Foundation or Fulbright awards.

International applicants admitted to the program must complete a financial statement that provides evidence of sufficient funds to support themselves for their first year and the intent for support to continue

throughout the duration of study. Even though departmental funding is guaranteed, international students often must submit additional financial support documentation, demonstrating that they can cover the gap between the amount the departments provide and the amount the U.S. State Department requires. Additional information about international student expenses can be found here (<http://grad.wisc.edu/international>).

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum 51 credits

Credit Requirement

Minimum 32 credits

Residence Credit Requirement

Minimum Graduate Coursework Requirement Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle>).

Overall	3.25 GPA required.
Graduate GPA Requirement	
Other Grade Requirements	Students must earn a BC or above in all required courses. Grades of Incomplete are considered to be unsatisfactory if they are not removed during the next enrolled semester.
Assessments and Examinations	Ph.D. students must pass two written preliminary exams in two different sociology subfields as well as an oral prelim. They then write a dissertation under the supervision of their major professor. After completing the dissertation, students take a final oral exam covering the dissertation and the general field of the major and minor studies.
Language Requirements	No language requirements.
Doctoral Minor/Breadth Requirements	All doctoral students are required to complete a minor.

REQUIRED COURSES

Code	Title	Credits
SOC/C&E SOC 361	Statistics for Sociologists II	3
SOC 362	Statistics for Sociologists III	3
SOC 700	Introductory Proseminar for Graduate Students	1
SOC/C&E SOC 750	Research Methods in Sociology	3
SOC 773	Intermediate Classical Theory	3
Select four seminars in Sociology or Community & Environmental Sociology		

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students may count up to 19 credits of graduate coursework from other institutions toward the minimum 51-credit Ph.D. degree requirement and the minimum 50% graduate coursework requirement. Coursework completed ten or more years prior to admission to the doctoral program may not be used to satisfy either of these requirements.

UW–Madison Undergraduate

With program approval, students may count up to 7 credits earned in an undergraduate degree program at UW–Madison toward the Ph.D. degree requirements. If the courses are numbered 300–699, the credits may count toward the minimum 51-credit degree requirement. If the courses are numbered 700–999, the credits may also count toward the minimum 50% graduate coursework requirement. Coursework completed ten or more years prior to admission to the doctoral program may not be used to satisfy either of these requirements.

UW–Madison University Special

With program approval, students may count up to 15 credits taken as a Special Student toward the Ph.D. degree requirements. If the courses are numbered 300–699, the credits may count toward the minimum 51-credit degree requirement. If the courses are numbered 700–999, the credits may also count toward the minimum 50% graduate coursework requirement. Coursework completed ten or more years prior to admission to the doctoral program may not be used to satisfy either of these requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

ADVISOR / COMMITTEE

Students are expected to have ongoing contact with their faculty advisor. Dissertators who fail to confer with their advisor at least once each semester will not be allowed to register in the subsequent semester. All students are required to submit a yearly progress report that is read and discussed by a committee of faculty during the annual review. In addition, all students are expected to create and regularly update an Individual Development Plan (IDP) and use it as the basis for conversations with their advisor about evolving goals, current strengths, and plans for mastery of new skills. A student's advisor serves as chair of the dissertation committee, which must have at least five members, all of whom read and evaluate the dissertation prior to the student's final oral exam. Committees are composed of three graduate faculty in Sociology and/or Community & Environmental Sociology, one graduate faculty member from outside these two departments, and a fifth person who may be any individual deemed qualified by the program's executive committee.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Doctoral students must complete the Ph.D. within five years of passing the oral preliminary examination and attaining dissertator status.

OTHER

The department guarantees five continuous years of funding to all admitted students. Our graduate students receive support toward their studies through project assistantships, research assistantships, teaching assistantships, lectureships, traineeships, and fellowships (fellowship awards may come from either the university or external agencies). All types of funding provide a full tuition remission, a stipend, and health insurance.

within and outside academia; and learning how to mentor. Students may also enroll in Soc 910, Teaching Sociology, a seminar focusing on course development, pedagogy, and evaluation.

The departments host scholars from other institutions who speak at departmental colloquia as well as speakers from campus units such as the Havens Center for Social Justice and the Institute for Research on Poverty. Students are encouraged to attend these events. They are also advised to participate in the program's workshops on career exploration and creating a professional website. Students are invited to collaborate with faculty and staff serving on department committees, and they are encouraged to develop leadership skills by becoming involved in the Sociology Graduate Student Association.

The departments provide small grants that assist students with research expenses and support those who are traveling to present their work at professional conferences.

The Sociology website includes several pages containing valuable resources for graduate students—e.g., Graduate Student Professional Development, Diversity & Inclusion Resources for Classroom Teaching, and Job Search & Placement Tips.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PROGRAM RESOURCES

The Sociology graduate program offers students an array of professional development opportunities.

All new graduate students are required to take SOC 700 Introductory Proseminar for Graduate Students during their first semester in the program. This course provides an overview of the discipline and the graduate program and addresses such professional development issues as teaching strategies and grant proposal writing. The proseminar also explores topics like productive advisor-advisee relationships, working effectively as part of a research team, co-authoring, and other matters important to graduate school success. Those students affiliated with the multi-disciplinary Center for Demography & Ecology and Center for Demography of Health & Aging are required to enroll in SOC/C&E SOC 995 Research: Methodology Trainees, as well. This course provides training in writing grant applications, conducting research responsibly, making presentations, writing papers for publication, applying for academic and research jobs, and other essential professional skills. In addition, all students who are teaching for the first time are required to participate in a weekly teaching workshop, which focuses on issues typically of concern to new TAs—e.g., developing lesson plans, engaging students, facilitating discussions, and evaluating written work. Finally, all graduate students are required to create an Individual Development Plan to help them define interests and values, evaluate skills, develop specific plans for meeting degree milestones and professional goals, and communicate effectively with their advisors.

Students are encouraged to participate in “brownbags” each semester.

The department offers nine of these training seminars, each focusing on a different sociology subfield. Brownbags meet weekly and involve presentation and discussion of student and faculty work-in-progress as well as analysis of current developments and debates; often guest speakers from other universities join the conversation. In addition, second- and third-year students are encouraged to take Soc 875, Professional Development, which covers a broad spectrum of topics—e.g., networking and peer support; time management; IRB approval and considering ethics throughout the research process; writing, revising, and submitting papers to scholarly journals; writing for public audiences; doing outreach work; speaking at conferences; investigating careers

LEARNING OUTCOMES

1. Demonstrate a broad understanding of major theories, methodologies, and research findings in the sociological literature. Develop critical thinking skills that empower them to analyze strengths and weaknesses in the existing literature, identify knowledge gaps, evaluate evidence, synthesize information, and form conclusions. Attain the skills necessary to teach and conduct research with intellectual and ethical rigor, care, and creativity.
2. Create individualized programs to suit their specific interests and goals. Formulate ideas and develop research questions, design feasible research projects, use appropriate methodologies, analyze and interpret the resulting data, and identify avenues for further exploration. Their original research will expand the current boundaries of knowledge in the field.
3. Write seminar papers and conduct dissertation research, prepare and submit manuscripts resulting from their research for publication in respected journals, and submit papers for presentation at professional conferences. Their independent research will contribute substantively to scholarship in the field.
4. Demonstrate breadth within their learning experience by taking at least four seminars, completing a minor area of study, and passing written preliminary exams in two different subfields. In addition, because our program emphasizes collective responsibility for training, students will be supervised and mentored by several faculty members with a range of expertise. They will also learn to mentor others.
5. Advance the contributions of sociological study to society by conducting research that explores complex ideas, analyzes quantitative and qualitative data, and disseminates new knowledge. Contribute to the vast body of scholarship and applied work that leads to the improvement of society. Share theory, methodology, and the results of research with the undergraduate students whom they teach and thereby foster an understanding of how social life works, what causes social change, and why humans behave in the ways they do.

6. Communicate complex ideas in a clear, organized, engaging manner to diverse audiences. Craft effective grant proposals; gather, manage, and analyze data; write papers that are thought-provoking, concise, and persuasive; present research informatively; listen with care and patience; and give and receive feedback orally and in writing.

7. Foster ethical and professional conduct by demonstrating respect for and having positive interactions with faculty members and staff, graduate student colleagues, and undergraduate students. Foster such conduct by the scientific rigor and honesty with which they design research, collect and analyze data, and interpret and report results.

8. (Career Preparation) Prepare for a range of sustainable careers in academia as well as government, private industry, and the nonprofit sector. Develop flexibility, leadership, and broadly applicable skills in critical thinking, problem solving, project management, collaboration, and communication.

PEOPLE

Faculty: Professors Raymo (chair, Sociology), Green (chair, Community & Environmental Sociology), Bell, Borman (affiliated), Carlson, Collins, Elwert, Emirbayer, Ermakoff, Ferree, Fletcher, Freeland, Friedland (affiliated), Fujimura, Gerber, Goldberg, Grodsky, Herd, Logan, Massoglia (director, Graduate Studies), Maynard, Montgomery, Morales (affiliated), Nordheim (affiliated), Oliver, Rogers (director, COWS), Schaeffer (director, UWSC), Schwartz, Seidman, Stoecker, Thornton (affiliated), Tigges, Wright; Associate Professors Alatout, Christens (affiliated), Curtis, Feinstein, Grant, Higgins (affiliated), Lim, Nobles, Shoemaker (affiliated); Assistant Professors Addo (affiliated), Conti, Engelman, Garoon, Goffman, Halpern-Meeke (affiliated), Leachman (affiliated), Light, O'Brien (affiliated), Simmons (affiliated), White, Xiong (affiliated)

SOIL SCIENCE

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Soil Science, Doctoral Minor (p. 1262)
- Soil Science, M.S. (p. 1263)
- Soil Science, Ph.D. (p. 1268)

PEOPLE

FACULTY

Assistant Professor Francisco Arriaga—farriaga@wisc.edu

Applied Soil Physics, Soil and Water Management and Conservation: Conservation agriculture systems; development of conservation tillage practices that enhance soil quality, soil hydraulic properties, and plant water use through the adoption of cover crops and non-inversion tillage for traditional cropping systems.

Associate Professor Nicholas Balster—njbalster@wisc.edu

Soil Ecology, Plant Physiological Ecology, and Education: Energy and material cycling in natural and anthropogenic soils including

forests, grasslands, and urban ecosystems; stable isotope ecology; environmental education; nutrition management of nursery soils; tree physiology, production and response; ecosystem response to global change; urban ecosystem processes; invasive plant ecology; biodiversity.

Professor Phillip Barak—pwbarak@wisc.edu

Soil Chemistry and Plant Nutrition: Nutrient cycling; nutrient recovery from wastewater; molecular visualization of soil minerals and molecules; soil acidification.

Professor William Bleam—wfbbleam@wisc.edu

Surface and Colloid Chemistry: Physical chemistry of soil colloids and sorption processes, chemistry of humic substances, factors controlling biological availability of contaminants to microorganisms, magnetic resonance and synchrotron studies of adsorption and precipitation.

Professor Alfred Hartemink—hartemink@wisc.edu

Pedology, Digital Soil Mapping: Application of fundamental soil science to real-world problems; digital soil mapping; history and philosophy of soil science; pedology, soil survey, and soil information systems.

Professor William Hickey—wjhickey@wisc.edu

Soil Microbiology and Biochemistry: Soil microbiology, biodegradation, environmental toxicants, molecular physiology, functional genomics, microbial nanostructure, biotechnology.

Professor Carrie Laboski—laboski@wisc.edu

Soil Fertility and Nutrient Management: Sustaining agricultural production and environmental quality; elucidate the biogeochemistry and subsequent best management practices for N, P, and K fertilizers and animal manures; soil fertility related to lime, secondary, and micronutrients; evaluation of soil and plant diagnostic tests; development of tools to assist producers, ag. professionals, and regulatory agencies to sustain economically sound production of grain and forage crops.

Professor Sharon Long—slong@wisc.edu

Applied Environmental and Public Health Microbiology: Microbial source tracking indicators in watershed management; improving detection and quantification, environmental ecology of indicator organisms and infectious diseases, microbial community structure and function in contaminated systems, microbial safety of wastewater sludge and biosolids, biotreatability assessment.

Professor Joel Pedersen—joelpedersen@wisc.edu

Environmental Chemistry/Biochemistry: Behavior of organic contaminants, macromolecules, and engineered nanoparticles in natural and engineered environments.

Associate Professor Matthew Ruark—mdruark@wisc.edu

Soil Fertility and Nutrient Management: Soil fertility and management of grain biofuel, and vegetable crops; cover crop management; agricultural production and water quality;

sustainability of dairy cropping systems; soil organic matter management.

Professor Douglas Soldat—djsoldat@wisc.edu

Turfgrass and Urban Soils—Turfgrass, urban soils, nutrient management, water resources, soil testing, landscape irrigation; soil contamination.

Professor Stephen Ventura—sventura@wisc.edu

Geographic Information Systems (Joint w/Nelson Institute for Environmental Studies): Geographic information systems (GIS), biofuels and production on marginal lands, public participation GIS, urban agriculture, land-scape process modeling, soil survey and soil information systems, land and resource tenure, GIS and land use planning.

Assistant Professor Thea Whitman—twhitman@wisc.edu

Soil Ecology, Microbiology, and Biogeochemistry: Soil microbial ecology; organic matter decomposition and carbon stabilization; global environmental change; stable isotopes; linking functional significance of microbial communities with ecosystem processes; fire effects on soil carbon and microbes; management and policy.

Soil Chemistry and Plant Nutrition: Nutrient cycling; nutrient recovery from wastewater; molecular visualization of soil minerals and molecules; soil acidification.

Professor William Bleam

Surface and Colloid Chemistry: Physical chemistry of soil colloids and sorption processes, chemistry of humic substances, factors controlling biological availability of contaminants to microorganisms, magnetic resonance and synchrotron studies of adsorption and precipitation.

Professor Alfred Hartemink

Pedology, Digital Soil Mapping: Application of fundamental soil science to real-world problems; digital soil mapping; history and philosophy of soil science; pedology, soil survey, and soil information systems.

Professor William Hickey

Soil Microbiology and Biochemistry: Soil microbiology, biodegradation, environmental toxicants, molecular physiology, functional genomics, microbial nanostructure, biotechnology.

Professor Carrie Laboski

Soil Fertility and Nutrient Management: Sustaining agricultural production and environmental quality; elucidate the biogeochemistry and subsequent best management practices for N, P, and K fertilizers and animal manures; soil fertility related to lime, secondary, and micronutrients; evaluation of soil and plant diagnostic tests; development of tools to assist producers, ag. professionals, and regulatory agencies to sustain economically sound production of grain and forage crops.

Professor Sharon Long

Applied Environmental and Public Health Microbiology: Microbial source tracking indicators in watershed management; improving detection and quantification, environmental ecology of indicator organisms and infectious diseases, microbial community structure and function in contaminated systems, microbial safety of wastewater sludge and biosolids, biotreatability assessment.

Professor Joel Pedersen

Environmental Chemistry/Biochemistry: Behavior of organic contaminants, macromolecules, and engineered nanoparticles in natural and engineered environments.

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Professor Douglas Soldat

Turfgrass and Urban Soils—Turfgrass, urban soils, nutrient management, water resources, soil testing, landscape irrigation; soil contamination.

Professor Stephen Ventura

SOIL SCIENCE, DOCTORAL MINOR

REQUIREMENTS

A doctoral minor in soil science shall consist of a minimum of 10 credits in the Department of Soil Science. At least 5 of the 10 credits must be from courses numbered 500 or higher. One credit of SOIL SCI 728 Graduate Seminar may be applied toward the 10-credit minimum.

PEOPLE

FACULTY

Assistant Professor Francisco Arriaga

Applied Soil Physics, Soil and Water Management and Conservation: Conservation agriculture systems; development of conservation tillage practices that enhance soil quality, soil hydraulic properties, and plant water use through the adoption of cover crops and non-inversion tillage for traditional cropping systems.

Associate Professor Nicholas Balster

Soil Ecology, Plant Physiological Ecology, and Education: Energy and material cycling in natural and anthropogenic soils including forests, grasslands, and urban ecosystems; stable isotope ecology; environmental education; nutrition management of nursery soils; tree physiology, production and response; ecosystem response to global change; urban ecosystem processes; invasive plant ecology; biodiversity.

Professor Phillip Barak

Geographic Information Systems (Joint w/Nelson Institute for Environmental Studies): Geographic information systems (GIS), biofuels and production on marginal lands, public participation GIS, urban agriculture, land-landscape process modeling, soil survey and soil information systems, land and resource tenure, GIS and land use planning.

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Soil Ecology, Microbiology, and Biogeochemistry: Soil microbial ecology; organic matter decomposition and carbon stabilization; global environmental change; stable isotopes; linking functional significance of microbial communities with ecosystem processes; fire effects on soil carbon and microbes; management and policy.

SOIL SCIENCE, M.S.

The UW–Madison Department of Soil Science is one of the oldest, largest, and most prominent soil science departments in the United States. It is globally renowned for its excellence in soil research and education. The department's mission is to provide instruction, research, and extension leadership in soil chemistry, physics, biology, and pedology to economic and sustainable land use. Programs are designed to improve basic understanding and practical management of soil resources in natural, agricultural, and urban ecosystems, and to serve local, state, national, and global interests. The department implements the Wisconsin Idea to the extended community and provides all generations with an appreciation of soil as a key natural resource and thorough understanding of the scientific basis of the environment and agriculture.

Soil science entails understanding soils and applying the principles of physics, chemistry, mathematics, and biology to the sustainable management of soil and the environment. Soil science deals with the effects of climate change and its interaction with the soil, with scarcity of water resources, and the increase of food production to feed 9 billion people. The link between soils and biodiversity as well as the effects of soils on biofuel production is widely researched in the Department of Soil Science.

The department is committed to integrated programs of instruction, research, extension, and outreach that address societal goals of responsible stewardship of soil and water resources.

The importance of soils in crop production, environmental issues, turf and grounds management, soil conservation, global climate change, carbon sequestration, rural and urban planning, and waste disposal are integrated into the department's course offerings and research programs. Graduate study in soil science provides the basic and applied scientific training needed for teaching, research, and other professional work in the agricultural, earth, and environmental sciences. The department office provides information concerning career placement and available vacancies.

Graduates from the department occupy leading positions in industry, government, education, and research in agriculture, natural resources and environmental science throughout the world. Of the more than 1,000 alumni of the department's graduate program, many are deans, directors, chairs, faculty, and staff at universities in the U.S. and other countries, or in leading positions in government, regulatory agencies, research institutions, agribusinesses, chemical industries, and recreational and conservation organizations.

The number of graduate students enrolled in the program over the past 10 years has averaged 20 per year, with about half pursuing master's degrees and half pursuing doctorates. International students generally comprise about 30% of the total. Department faculty also direct additional graduate students in multidisciplinary research in soils-related programs.

FACULTY RESEARCH

Research in the department focuses on an improved understanding of the soil, as well as on interactions between soil and the people of Wisconsin. The faculty have extensive and long-term experience and knowledge about the soils of Wisconsin, their genesis, properties and management. The department has an exciting suite of research activities ranging from the molecular level to the global. Research focuses on topical themes like climate change and soil changes to land use effects of biofuel production to DNA fingerprinting of soil life.

Many field-research projects on soil and water problems are conducted in cooperation with state and federal agencies, agribusinesses, municipalities, and private farmers. The department cooperates closely with the Wisconsin Geological and Natural History Survey, Molecular and Environmental Toxicology Center, and the USDA Natural Resource Conservation Service in conducting soil surveys and addressing problems of groundwater shortages and contamination. Relationships between soils and forests are studied at tree nurseries and in state, private, and commercial forests throughout the state in cooperation with the Wisconsin Department of Natural Resources and the pulp and paper industry.

Through a long commitment of our staff to international agriculture, the department has assisted in the creation of agricultural colleges in several developing countries and has attracted outstanding international graduate students. Current research involvement includes Brazil, Chile, China, Trinidad-Tobago, Spain, Australia, Argentina, and Antarctica.

Many department faculty have been recognized nationally and globally for their contributions to soil science. Three of only four soil scientists appointed to the National Academy of Sciences are from the UW–Madison Department of Soil Science. Several faculty members have received local and national academic, professional-society, trade-association, and industrial prizes and awards for teaching, research, and extension education and serve on important state, national, and international committees. Many faculty members have been recognized for their contributions by election to honorary fellowship in the Soil Science Society of America, the American Society of Agronomy, and allied professional societies.

Our faculty are heavily involved in cooperative interdisciplinary research undertakings with scientists and organizations within and beyond the university, such as UW–Madison's Gaylord Nelson Institute for Environmental Studies, Molecular and Environmental Toxicology Center, Environmental Chemistry and Technology Program, and other science departments, state agencies, environmental consulting and service companies, agribusinesses, and trade organizations.

RESEARCH FACILITIES

Research in the department can be conducted in the field, in the laboratory, behind the desktop, but is commonly conducted in a combination. The department is equipped with all necessary laboratory, computing, and field facilities for graduate training and research. State-of-the-art scientific instrumentation includes soil moisture tension apparatus; flame-emission and atomic-absorption spectrophotometers

and gamma-ray spectrometers; neutron activation analysis equipment; an inductively coupled plasma (ICP)-emission spectrometer and an ICP-mass spectrometer; thin-layer, high-performance liquid, gas, and ion chromatographs; low-mass isotope ratio mass spectrometer; micro-respirometers; micro-titer-plate counters; infrared and ultraviolet spectrophotometers; phase-contrast, polarizing and epifluorescence microscopy and photomicrography equipment; eddy correlation systems for heat, moisture, and CO₂ fluxes; ground-penetrating radar; high-resolution digital imaging; dynamic light scattering and particle electrophoresis equipment; flow field flow fractionation; and accelerated solvent extractor. Field equipment includes a truck-mounted hydraulic soil probe with well-drilling capabilities; a plot-field harvest combine; various production field equipment (planters, tillage equipment, rainfall simulator); differential-global position system; and particle counter.

Excellent data-collection, datalogging, computing, and networking facilities are available for basic research and graduate training. In addition to computing facilities maintained by individual researchers for their students, the department makes available to its graduate students a computer graphics facility for the production of sophisticated graphic output.

Specialized facilities are available for research in molecular biology, modern environmental microbiology, in vitro toxicology and bioassays, and contaminated-site remediation. Soils graduate students and faculty have shared access to major advanced physicochemical, x-ray, and electron microscopy analytical equipment through the Materials Science Center, National Magnetic Resonance Facility at Madison, National Synchrotron Light Source at Brookhaven National Laboratories, and other UW–Madison science and engineering departments. Facilities, vehicles, machinery, and instrumentation are available for conducting field experiments at ten strategically located UW Agricultural Research Stations and the O.J. Noer Turfgrass Research and Education Facility. Fieldwork for agricultural production and environmental protection is supported by daily information from the CALS agricultural weather-station network as well as soils, crops, land-use, and natural resources analysis using land information systems and geographic information systems.

ADMISSIONS

A foundation in the basic sciences is essential for graduate study in soil science. The program requires all students to have successfully completed the pre-requisite or equivalent coursework listed below. Admission with deficiencies is possible but is likely to delay completion of graduate studies.

PRE-REQUISITE COURSEWORK

The following courses are generally completed in an undergraduate program; however, if these requirements have not been met, they will need to be satisfied during the M.S. program.

Code	Title	Credits
MATH 221 or MATH 222	Calculus and Analytic Geometry 1 Calculus and Analytic Geometry 2	4-5
STAT 301	Introduction to Statistical Methods	3
CHEM 109 & CHEM 327 or CHEM 103/104	Advanced General Chemistry and Fundamentals of Analytical Science General Chemistry I	9

PHYSICS 103	General Physics	4
BIOLOGY/BOTANY/ ZOOLOGY 151	Introductory Biology	3
or BOTANY/ BIOLOGY/ ZOOLOGY 152	Introductory Biology	
or BOTANY 500	Plant Physiology	
or BOTANY/ F&W ECOL/ ZOOLOGY 460	General Ecology	
or BIOCHEM 501	Introduction to Biochemistry	
or BIOCHEM 507	General Biochemistry I	

APPLICATION MATERIALS

The following materials must be submitted when applying to the program: an online application, official transcripts, Graduate Record Exam (GRE) scores, and three references. TOEFL scores are required for applicants whose native language is not English. Because graduate requirements presuppose extensive science coursework, continuing undergraduate students are encouraged to select undergraduate courses carefully if they are considering advanced degrees in soil science.

APPLICATION DEADLINES

Applications for summer session should be submitted by **April 15**, fall semester by **June 15**, and spring semester by **November 15**.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Financial support is usually available to qualified students in the form of research assistantships, mostly funded from research grants; final decision for granting a research assistantship rests with the professor(s) supervising the research. Any assistantship for at least one-third time qualifies a student for remission of tuition (though students may be responsible for other administrative fees). The department does not offer teaching assistantships. A number of Graduate School fellowships are available to new students with outstanding records. The deadline for application for these competitive fellowships is early January of each year. The department selects the most qualified applicants and forwards their dossiers to a campus-wide selection committee. Support for graduate assistantships is available through two Wisconsin Distinguished Fellowships (the W.R. Kussow/Wisconsin Turfgrass Association and the Leo M. Walsh/Wisconsin Fertilizer and Chemical Association), the C.B. Tanner Agricultural Physics Award Fund, and the

Charles and Alice Ream Soil and Water Protection Research Fund. In addition, there are two awards given annually to outstanding incoming graduate students, the O.N. Allen Graduate Fellowship for Agriculture and the Kelling Soil Fertility Award.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements Required courses in soil science must be completed with a grade of B or better (BC and C may not be offset by AB and A). For all other courses, the requirement is an average record of B or better in all work taken as a graduate student.

Assessments and Examinations Students are expected to present a written research plan to their committee no later than the end of the third semester of M.S. graduate work.

Candidates must present an open seminar on their M.S. thesis research, and pass a comprehensive examination (either oral, or an oral-written combination if requested by the candidate) on the graduate work offered in support of their candidacy.

Deposit of the master's thesis is required.

Language Requirements No language requirements.

REQUIRED COURSES

Code	Title	Credits
SOIL SCI 301	General Soil Science	4
SOIL SCI 325	Soils and Landscapes	3
SOIL SCI 728	Graduate Seminar ¹	1
At least one course from 3 of the following 5 subject areas:		9

Soil Physics

SOIL SCI 322	Physical Principles of Soil and Water Management
SOIL SCI/ AGRONOMY/ ATM OCN 532	Environmental Biophysics
SOIL SCI 622	Soil Physics

Soil Chemistry

SOIL SCI 321	Soils and Environmental Chemistry
SOIL SCI 621	Soil Chemistry
SOIL SCI/ BOTANY/ HORT 626	Mineral Nutrition of Plants

Soil Biology

SOIL SCI/ PL PATH 323	Soil Biology
SOIL SCI/ MICROBIO 523	Soil Microbiology and Biochemistry
SOIL SCI/ CIV ENGR 623	Microbiology of Waterborne Pathogens and Indicator Organisms

Soil Fertility

SOIL SCI/ AGRONOMY/ HORT 326	Plant Nutrition Management
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Spatial Analysis

SOIL SCI/ ENVIR ST/ LAND ARC 695	Applications of Geographic Information Systems in Natural Resources	
GEOG/CIV ENGR/ ENVIR ST 377	An Introduction to Geographic Information Systems	
SOIL SCI 990	Research ²	1-12

M.S. candidates must enroll in a minimum of 7 credits non-research soils and/or non-soils courses at the 500 level or higher. This should include 1 credit of SOIL SCI 728 (presentation semester).

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result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

¹ All M.S. candidates must present at least one SOIL SCI 728 Graduate Seminar for a letter grade \geq B or equivalent during M.S. program. Each candidate must enroll in SOIL SCI 728 Graduate Seminar every fall and spring semester; exceptions require the approval of the department chair.

² M.S. candidates must enroll in a minimum of 1 credit of SOIL SCI 990 Research every semester.

ADVISOR / COMMITTEE

The master's examination committee consists of at least three faculty members of defensible breadth, a minimum of two drawn from the soil science faculty. Defensible breadth shall be subject to certification committee approval. The third member of the committee must have a degree equivalent to that pursued by the student and be approved by the certification committee.

A proposed program for a M.S. candidate satisfying the minimum course requirements must be approved by the certification committee by the end of the first semester of M.S. graduate work. It is the responsibility of the student and the major professor to complete the departmental M.S. certification forms, arrange to be certified by the certification committee, and arrange for approval of revisions in the initial program if this becomes necessary.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Students enrolled full time are expected to complete their degree requirements within two to three years.

OTHER

Financial support is available to qualified M.S. and Ph.D. students in the form of research assistantships. Most assistantships are funded through research grants, and the final decision rests with the professor(s) supervising the research. A research assistantship for at least one-third time qualifies a student for remission of all tuition. The department does not offer teaching assistantships. Graduate School fellowships are also available.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PROGRAM RESOURCES

UW–Madison offers a wealth of resources intended to enrich your graduate studies and enhance your professional skills. Starting your very first year on campus, it is expected that you will take full advantage of the career and professional development resources that best fit your needs and support your goals. Since our alumni thrive not only in academia but also in industry, corporate, government, and non-profit arenas, we strive to be in-tune, holistic, and innovative in our approach to meeting the diverse professional development needs of our students. By actively participating in these professional development opportunities, you will build the skills needed to succeed academically at UW–Madison and to thrive professionally in your chosen career.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 12 credits of graduate coursework taken during graduate study at other institutions. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

With program approval, students are allowed to count no more than 7 credits of graduate coursework numbered 300 or above from a UW–Madison undergraduate degree. The coursework may also count toward the 50% graduate coursework requirement if the courses are numbered 700 or above. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison University Special

With program approval, students are allowed to count no more than 15 credits of coursework numbered 300 or above taken as a UW–Madison University Special student. The coursework may also count toward the 50% graduate coursework requirement if the courses are numbered 700 or above. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could

LEARNING OUTCOMES

1. Articulates, critiques, and elaborates theories, research methods, and approaches in soil science.
2. Identifies sources and assembles evidence addressing questions or challenges in soil science.
3. Understands the field of soil science in historical, social, and global contexts.
4. Selects and/or utilizes the appropriate methodologies and practices for soil science research.
5. Evaluates or synthesizes information addressing research questions.
6. Communicates clearly in oral and written forms.
7. Recognizes and applies principles of ethical and professional conduct.

PEOPLE

FACULTY

Assistant Professor Francisco Arriaga

Applied Soil Physics, Soil and Water Management and Conservation: Conservation agriculture systems; development of conservation tillage practices that enhance soil quality, soil hydraulic properties, and plant water use through the adoption of cover crops and non-inversion tillage for traditional cropping systems.

Associate Professor Nicholas Balster

Soil Ecology, Plant Physiological Ecology, and Education: Energy and material cycling in natural and anthropogenic soils including forests, grasslands, and urban ecosystems; stable isotope ecology; environmental education; nutrition management of nursery soils; tree physiology, production and response; ecosystem response to global change; urban ecosystem processes; invasive plant ecology; biodiversity.

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Surface and Colloid Chemistry: Physical chemistry of soil colloids and sorption processes, chemistry of humic substances, factors controlling biological availability of contaminants to microorganisms, magnetic resonance and synchrotron studies of adsorption and precipitation.

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RESEARCH FACILITIES

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PRE-REQUISITE COURSEWORK

The following courses are generally completed in an undergraduate program; however, if these requirements have not been met, they will need to be satisfied during the Ph.D. program.

Code	Title	Credits
MATH 221 & MATH 222	Calculus and Analytic Geometry 1 and Calculus and Analytic Geometry 2	9
STAT 301	Introduction to Statistical Methods	3
CHEM 109 & CHEM 327 or CHEM 103/104	Advanced General Chemistry and Fundamentals of Analytical Science General Chemistry I	9
PHYSICS 103	General Physics	4
BIOLOGY/BOTANY/ ZOOLOGY 151 or BOTANY/ BIOLOGY/ ZOOLOGY 152 or BOTANY 500 or BOTANY/ F&W ECOL/ ZOOLOGY 460 or BIOCHEM 501 or BIOCHEM 507	Introductory Biology Introductory Biology Plant Physiology General Ecology Introduction to Biochemistry General Biochemistry I	3

APPLICATION MATERIALS

The following materials must be submitted when applying to the program: an online application, official transcripts, Graduate Record Exam (GRE) scores, and three references. TOEFL scores are required for applicants whose native language is not English. Because graduate requirements presuppose extensive science coursework, continuing undergraduate students are encouraged to select undergraduate courses carefully if they are considering advanced degrees in soil science.

APPLICATION DEADLINES

Applications for summer session should be submitted by **April 15**, fall semester by **June 15**, and spring semester by **November 15**.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Financial support is usually available to qualified students in the form of research assistantships, mostly funded from research grants; final decision for granting a research assistantship rests with the professor(s) supervising the research. Any assistantship for at least one-third time qualifies a student for remission of tuition (though students may be responsible for other administrative fees). The department does not offer teaching assistantships. A number of Graduate School fellowships are available to new students with outstanding records. The deadline for application for these competitive fellowships is early January of each year. The department selects the most qualified applicants and forwards their dossiers to a campus-wide selection committee. Support for graduate assistantships is available through two Wisconsin Distinguished Fellowships (the W.R. Kussow/Wisconsin Turfgrass Association and the Leo M. Walsh/Wisconsin Fertilizer and Chemical Association), the C.B. Tanner Agricultural Physics Award Fund, and the Charles and Alice Ream Soil and Water Protection Research Fund. In addition, there are two awards given annually to outstanding incoming graduate students, the O.N. Allen Graduate Fellowship for Agriculture and the Kelling Soil Fertility Award.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 51 credits

Minimum Residence Credit Requirement 32 credits

Minimum Graduate Coursework Requirement Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements Required courses in soil science must be completed with a grade of B or better (BC and C may not be offset by AB and A). For all other courses, the requirement is an average record of B or better in all work taken as a graduate student.

Assessments and Examinations Candidates must complete the Ph.D. prospectus, which consists of the prospectus seminar and the written prospectus.

Candidates are required to take a preliminary examination.

Candidates for the Ph.D. degree are subject to a final oral examination on their dissertation and the general fields of the major and minor studies. Candidates must present an open seminar on their Ph.D. research findings, followed by oral defense of the dissertation in front of the doctoral committee.

Deposit of the doctoral dissertation is required.

Language Requirements No language requirements.

Doctoral Minor/Breadth Requirements All doctoral students are required to complete a minor. Ph.D. candidates in soil science must supplement their major study with a minimum of 10 credits in graduate courses in another field. These courses must be selected according to a coherent plan under Option A or Option B as follows:

Option A—External: A student must offer at least 10 credits from a degree program outside the soil science major. Selection of this option requires approval of the minor department.

Option B—Distributed: A distributed minor for a student studying for a Ph.D. in soil science shall consist of a minimum of 10 credits of graduate-level courses in one or more departments. Selection of this option requires approval of the certification committee.

A minor program must be approved by the minor department (Option A) or by the Department of Soil Science Certification Committee (Option B) no later than the end of the second semester of Ph.D. graduate work (not including summer sessions). A copy of the completed minor agreement form is needed to obtain the warrant for the preliminary exam.

REQUIRED COURSES

Code	Title	Credits
SOIL SCI 301	General Soil Science	4
SOIL SCI 325	Soils and Landscapes	3
SOIL SCI/ AGRONOMY/ ATM OCN 532	Environmental Biophysics	3
or SOIL SCI 622	Soil Physics	
SOIL SCI 621	Soil Chemistry	3
or SOIL SCI/ BOTANY/ HORT 626	Mineral Nutrition of Plants	
SOIL SCI/ MICROBIO 523	Soil Microbiology and Biochemistry	3
SOIL SCI 728	Graduate Seminar ¹	1
SOIL SCI 799	Practicum in Soil Science Teaching ²	1-3
SOIL SCI 990	Research ³	1-12

A minimum of 8 credits, non-research at the 500 or higher level, which includes two credits of graduate seminar. 8

- ¹ All Ph.D. candidates must present at least two seminars in SOIL SCI 728 Graduate Seminar for a letter grade \geq B or equivalent during Ph.D. program. One of the seminars must be on the student's prospectus. Each candidate must enroll in SOIL SCI 728 Graduate Seminar every fall and spring semester; exceptions require the approval of the department chair.
- ² All candidates pursuing a Soil Science Ph.D. shall complete a minimum of 1 credit of SOIL SCI 799 Practicum in Soil Science Teaching. A written plan for satisfying this requirement shall be prepared by the student in conjunction with the advisor and approved by the Certification Committee. The type and level of effort required to earn one or more degree credits in SOIL SCI 799 Practicum in Soil Science Teaching shall be in accordance with the guidelines and standards set forth by the CALS Curriculum Committee and approved by the UW Divisional Committees in the Spring Semester 1981.
- ³ Ph.D. candidates are required to enroll in at least 1 credit of SOIL SCI 990 Research every semester.

requirement if the courses are numbered 700 or above. coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

PROBATION

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

ADVISOR / COMMITTEE

The doctoral committee is a committee of five or more faculty members chosen by the major professor and the student, subject to approval by the certification committee. A minimum of three must be drawn from the soil science faculty. Representation of the minor department (see *graduate minor requirements*, below) is at the option of the minor department, but the Department of Soil Science recommends that the minor professor be on the committee. A minimum of three must be designated as readers.

It is the responsibility of the student and the major professor to form a doctoral committee and schedule a meeting before the end of the second semester (not including summer sessions) of Ph.D. graduate work. The doctoral committee will prepare a draft "degree clock" for the student specifying all significant Ph.D. milestones (certification of Ph.D. coursework, approval of minor, presentation of prospectus, preliminary examination, and final examination) during their initial meeting.

A student who does not meet deadline requirements in the departmental Ph.D. requirements document will not be allowed to register in the subsequent semester until a written plan for meeting the requirements has been approved by the major advisor and the department certification committee.

A proposed program for a Ph.D. candidate satisfying the minimum course requirements must be approved by the certification committee before the end of the first semester of Ph.D. graduate work.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Prospectus: The written prospectus and the prospectus seminar must be completed by the end of the third semester (not including summer sessions).

Preliminary exam: Students who obtain their M.S. degree in the department and who continue in the department for their doctorate must take the preliminary examination by the end of the fourth semester (not including summer sessions) of Ph.D. graduate work. Candidates who are approved to retake a failed examination must have passed by the end of the fifth semester.

Candidates for the Ph.D. degree who obtained an M.S. or M.A. degree elsewhere, must take the Preliminary Examination by the end of the fourth semester (not including summer sessions) of Ph.D. graduate work. Candidates who are approved to retake a failed examination must have passed by the end of the fifth semester.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 12 credits of graduate coursework taken during graduate study at other institutions. coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW-Madison Undergraduate

With program approval, students are allowed to count no more than 7 credits of graduate coursework numbered 300 or above from a UW-Madison undergraduate degree. The coursework may also count toward the 50% graduate coursework requirement if the courses are numbered 700 or above. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW-Madison University Special

With program approval, students are allowed to count no more than 15 credits of coursework numbered 300 or above taken as a UW-Madison University Special student. The coursework may also count toward the 50% graduate coursework

Candidates who do not adhere to this deadline must show justification for the delay to the department certification committee.

Final oral exam and deposit of dissertation: A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

OTHER

Financial support is available to qualified M.S. and Ph.D. students in the form of research assistantships. Most assistantships are funded through research grants, and the final decision rests with the professor(s) supervising the research. A research assistantship for at least one-third time qualifies a student for remission of all tuition. The department does not offer teaching assistantships. Graduate School fellowships are also available.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PROGRAM RESOURCES

UW–Madison offers a wealth of resources intended to enrich your graduate studies and enhance your professional skills. Starting your very first year on campus, it is expected that you will take full advantage of the career and professional development resources that best fit your needs and support your goals. Since our alumni thrive not only in academia but also in industry, corporate, government and non-profit arenas, we strive to be in-tune, holistic, and innovative in our approach to meeting the diverse professional development needs of our students. By actively participating in these professional development opportunities, you will build the skills needed to succeed academically at UW–Madison and to thrive professionally in your chosen career.

LEARNING OUTCOMES

1. Articulates research problems, potentials, and limits with respect to theory and practice in soil science.
2. Formulates ideas, concepts, designs, and/or techniques beyond the boundaries of soil science knowledge.
3. Articulates testable hypotheses and conducts research that makes a substantive contribution to soil science.
4. Communicates clearly in ways appropriate to the field, in oral and written forms, for scholarly and general public audiences.
5. Fosters ethical and professional conduct, adhering to accepted standards such as that of the Soil Science Society of America.

PEOPLE

FACULTY

Assistant Professor Francisco Arriaga

Applied Soil Physics, Soil and Water Management and Conservation: Conservation agriculture systems; development of conservation tillage practices that enhance soil quality, soil hydraulic properties, and plant water use through the adoption of cover crops and non-inversion tillage for traditional cropping systems.

Associate Professor Nicholas Balster

Soil Ecology, Plant Physiological Ecology, and Education: Energy and material cycling in natural and anthropogenic soils including forests, grasslands, and urban ecosystems; stable isotope ecology; environmental education; nutrition management of nursery soils; tree physiology, production and response; ecosystem response to global change; urban ecosystem processes; invasive plant ecology; biodiversity.

Professor Phillip Barak

Soil Chemistry and Plant Nutrition: Nutrient cycling; nutrient recovery from wastewater; molecular visualization of soil minerals and molecules; soil acidification.

Professor William Bleam

Surface and Colloid Chemistry: Physical chemistry of soil colloids and sorption processes, chemistry of humic substances, factors controlling biological availability of contaminants to microorganisms, magnetic resonance and synchrotron studies of adsorption and precipitation.

Professor Alfred Hartemink

Pedology, Digital Soil Mapping: Application of fundamental soil science to real-world problems; digital soil mapping; history and philosophy of soil science; pedology, soil survey, and soil information systems.

Professor William Hickey

Soil Microbiology and Biochemistry: Soil microbiology, biodegradation, environmental toxicants, molecular physiology, functional genomics, microbial nanostructure, biotechnology.

Professor Carrie Laboski

Soil Fertility and Nutrient Management: Sustaining agricultural production and environmental quality; elucidate the biogeochemistry and subsequent best management practices for N, P, and K fertilizers and animal manures; soil fertility related to lime, secondary, and micronutrients; evaluation of soil and plant diagnostic tests; development of tools to assist producers, ag. professionals, and regulatory agencies to sustain economically sound production of grain and forage crops.

Professor Sharon Long

Applied Environmental and Public Health Microbiology: Microbial source tracking indicators in watershed management; improving

detection and quantification, environmental ecology of indicator organisms and infectious diseases, microbial community structure and function in contaminated systems, microbial safety of wastewater sludge and biosolids, biotreatability assessment.

Professor Joel Pedersen

Environmental Chemistry/Biochemistry: Behavior of organic contaminants, macromolecules, and engineered nanoparticles in natural and engineered environments.

Associate Professor Matthew Ruark

Soil Fertility and Nutrient Management: Soil fertility and management of grain biofuel, and vegetable crops; cover crop management; agricultural production and water quality; sustainability of dairy cropping systems; soil organic matter management.

Professor Douglas Soldat

Turfgrass and Urban Soils—Turfgrass, urban soils, nutrient management, water resources, soil testing, landscape irrigation; soil contamination.

Professor Stephen Ventura

Geographic Information Systems (Joint w/Nelson Institute for Environmental Studies): Geographic information systems (GIS), biofuels and production on marginal lands, public participation GIS, urban agriculture, land-scape process modeling, soil survey and soil information systems, land and resource tenure, GIS and land use planning.

Assistant Professor Thea Whitman

Soil Ecology, Microbiology, and Biogeochemistry: Soil microbial ecology; organic matter decomposition and carbon stabilization; global environmental change; stable isotopes; linking functional significance of microbial communities with ecosystem processes; fire effects on soil carbon and microbes; management and policy.

Frantzen (second language acquisition and linguistics), Hildner (Golden Age literature), Hutchinson (Golden Age literature), Medina (modern Spanish American literature), Podestá (colonial Spanish American literature); Associate Professors Alcalá-Galán (Golden Age literature), Ancos-García (medieval Spanish literature), Goldgel-Carballo (colonial Spanish American literature), Hernández (modern Spanish American literature), Pellegrini (modern Spanish American literature), Rao (Spanish linguistics), Stafford (second language acquisition and linguistics), Tejedo-Herrero (Spanish linguistics); Assistant Professors Armstrong (Spanish linguistics), Cerezo Paredes (modern Spanish literature), Comparone (modern Spanish literature)

Portuguese Faculty: Professors Albuquerque (Brazilian literature and culture), Madureira (Portuguese, Brazilian, and Luso-African literature and culture), Sapega (Portuguese and Luso-African literature and culture); and Sanchez (Portuguese and Brazilian literature and culture)

PORTUGUESE, DOCTORAL MINOR

REQUIREMENTS

For a minor in Portuguese, the student should have a **minimum of 9 credits** beyond PORTUG 301 Intensive Portuguese/PORTUG 302 Intensive Portuguese. Also, courses taken to fulfill the language requirement cannot count toward the minor in Portuguese.

Individual advisors should not sign off on the minor in Spanish or Portuguese. Students should be sent to the assigned advisor in each Portuguese area for the doctoral minor for signature and approval.

PEOPLE

Spanish Faculty: Professors Beilin (modern Spanish literature), Bilbija (modern Spanish American literature), Close (modern Spanish American/trans-Atlantic literature), Corfis (medieval Spanish literature), De Ferrari (modern Spanish American literature), Egea (modern Spanish literature), Frantzen (second language acquisition and linguistics), Hildner (Golden Age literature), Hutchinson (Golden Age literature), Medina (modern Spanish American literature), Podestá (colonial Spanish American literature); Associate Professors Alcalá-Galán (Golden Age literature), Ancos-García (medieval Spanish literature), Goldgel-Carballo (colonial Spanish American literature), Hernández (modern Spanish American literature), Pellegrini (modern Spanish American literature), Rao (Spanish linguistics), Stafford (second language acquisition and linguistics), Tejedo-Herrero (Spanish linguistics); Assistant Professors Armstrong (Spanish linguistics), Cerezo Paredes (modern Spanish literature), Comparone (modern Spanish literature)

Portuguese Faculty: Professors Albuquerque (Brazilian literature and culture), Madureira (Portuguese, Brazilian, and Luso-African literature and culture), Sapega (Portuguese and Luso-African literature and culture); and Sanchez (Portuguese and Brazilian literature and culture)

SPANISH AND PORTUGUESE

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Portuguese, Doctoral Minor (p. 1273)
- Portuguese, M.A. (p. 1273)
- Portuguese, Ph.D. (p. 1277)
- Spanish, Doctoral Minor (p. 1281)
- Spanish, M.A. (p. 1281)
- Spanish, Ph.D. (p. 1285)

PEOPLE

Spanish Faculty: Professors Beilin (modern Spanish literature), Bilbija (modern Spanish American literature), Close (modern Spanish American/trans-Atlantic literature), Corfis (medieval Spanish literature), De Ferrari (modern Spanish American literature), Egea (modern Spanish literature),

PORTUGUESE, M.A.

The degrees offered are the master of arts in Portuguese and the doctor of philosophy with a major in Portuguese. In addition, the department

offers a doctoral minor in Spanish or Portuguese, consisting of 9 credits of graduate study.

An integrated curriculum in Portuguese languages, literatures, and linguistics provides training at the master's and Ph.D. levels and assures that graduates are prepared to contribute as professionals in the fields of teaching and research. An active program of research contributes to new knowledge in Spanish and Portuguese. A comprehensive group of courses is offered in rotation during the academic year so that candidates may take courses in all fields. Classes are conducted in Portuguese.

The department's graduate program in Portuguese is consistently among the finest in the country. Twenty to twenty-five teaching assistantships are offered each year to graduate candidates in Spanish and Portuguese. A full complement of courses in Portuguese, Brazilian, and Luso-African literatures, culture, and linguistics is offered on a regular basis.

Fellowships, scholarships, teaching assistantships, and project assistantships are available to qualified graduate degree candidates.

Students pursuing advanced degrees in this department are advised to include in their training work in other languages and literatures, art, social sciences, linguistics, film studies, and philosophy. A knowledge of other languages is strongly recommended for advanced work in Hispanic and Luso-Brazilian fields.

ADMISSIONS

Admission to candidacy for the master's degree presupposes an undergraduate major in Portuguese at UW–Madison or its equivalent.

Applicants with a B.A. in Portuguese must have an undergraduate GPA of at least 3.0 on a 4.0 scale, and a GPA in Portuguese courses of at least 3.25. Exceptions to these requirements may be made by the admissions committee.

During the registration period, the student will be asked to supply supplementary information regarding courses taken previously, experience abroad, scope of readings in Portuguese and Brazilian literatures, and preparation in linguistics.

All admitted candidates will take an examination for written proficiency. An unsatisfactory performance, as determined by the examiners, on the written examination will require the student to take PORTUG 311 Fourth Year Composition and Conversation. Any student who receives a grade of less than A in PORTUG 311 Fourth Year Composition and Conversation will be required to take PORTUG 312 Fourth Year Composition and Conversation. Candidates who are not native speakers of Portuguese will take an examination for oral proficiency. Any student achieving a grade-point average of less than 3.0 in the first semester in residence will be placed on probation. If after the second semester of studies the cumulative grade-point average is not 3.0, the student is not eligible to continue in the program.

REQUIRED DOCUMENTATION FOR MA APPLICATIONS

- Three (3) letters of recommendation are required for all graduate student applicants, using the Graduate School's online application.
- Send one (1) official copy of ALL university transcripts to the Department of Spanish & Portuguese. Notarized English translations should accompany ALL non-English transcripts.

- TOEFL test is required for ALL applicants whose native language is NOT English, or whose undergraduate instruction was NOT in English. For more information regarding the TOEFL, please see the Graduate School's Admissions Requirements (<https://grad.wisc.edu/admissions/requirements>).
- Reason for Graduate Study/Statement of Purpose: What are your reasons for graduate study? Please describe your current degree goals and your reasons for selecting your program(s). Your statement can be either in English or Portuguese. It should not exceed three single-spaced pages, or the equivalent when double-spaced.

APPLICATION DEADLINES

Fall term—January 5 of same year's fall term (i.e., January 5, 2019, for fall 2019)

Spring term—October 15 in year prior to spring term (i.e., October 15, 2019, for spring 2020)

All materials must be received either electronically or by postal mail to the Department of Spanish and Portuguese by these dates.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Prospective students should see the program website (<https://spanport.wisc.edu/prospective-grad-funding>) for funding information.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 31 credits

Minimum Residence Credit Requirement 25 credits

Minimum Graduate Coursework Requirement It is rare for student not to take 100% of their credits in graduate coursework. At least half of the required coursework must be in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements No other grade requirements.

Assessments and Examinations An M.A./Ph.D. qualifying examination is required. The M.A./Ph.D. qualifying examination covers the five curriculum areas, of which the candidate must take four. The student is required to have taken a course (i.e., not necessarily a survey course) in the fifth area. Each of the four areas is tested by a 1.5-hour exam, consisting of some combination of the following: short questions (definitions, terminology, key concepts, etc.), specific questions on key works and/or general essay questions (dealing with textual analysis, literary history, contrastive studies, etc.). At least one part of each area of the M.A./Ph.D. qualifying examination must be written in Portuguese.

Language Requirements No language requirements beyond English and Portuguese. However, candidates who expect to go on to the doctorate are urged to acquire the basic reading knowledge of a second foreign language before taking the M.A. examination. It should be another Romance Language or Latin. Other languages may be considered, with the approval of the department.

REQUIRED COURSES

The Master's Degree program in Portuguese in the Department of Spanish and Portuguese is based on a series of core courses designed to give the student a broad knowledge of Portuguese, Brazilian, and Lusophone African literary currents. Specific course requirements are as follows:

Code	Title	Credits
Required Courses ¹		
PORTUG 707	Portuguese M.A. Proseminar	1
Fifteen credits, in the form of 5 three-credit core courses		15
Electives		
6 credits must be seminar courses ²		15
Remaining credits typically taken in the four areas in which the student will complete an exam. However, the student is expected to take one course in the fifth area they do not plan to complete an exam.		
Total Credits		31

¹ PORTUG 899 Independent Reading may satisfy only elective credits.

² Students are strongly advised not to take a seminar in an area in which they have no previous preparation. Exceptions by consent of instructor.

The following are core courses, designed especially for beginning graduate students:

Code	Title	Credits
PORTUG 330	History of the Portuguese Language	3
PORTUG 361	Portuguese Civilization	3
PORTUG 362	Brazilian Civilization	3
PORTUG 411	Survey of Portuguese Literature before 1825	3
PORTUG 412	Survey of Brazilian Literature before 1890	3
PORTUG/AFRICAN 451	Lusophone African Literature	3
PORTUG 467	Survey of Portuguese Literature since 1825	3
PORTUG 468	Survey of Brazilian Literature since 1890	3

All graduate students who are candidates for an M.A. degree in this department must take a minimum of two graduate-level courses in Spanish and/or Portuguese for credit each semester, exclusive of Independent Reading courses and audited courses. A student who is not in compliance with this requirement is not making good progress toward the degree, and will therefore be deemed not in good academic standing. Advisors should be aware that only the departmental committee, on the

favorable recommendation of the Graduate Studies Committee, may grant exemptions.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

Master's students are not allowed to transfer in graduate credits from other institutions.

UW–Madison Undergraduate

No credits from undergraduate courses from a UW–Madison undergraduate degree are allowed to count toward the degree, but students who have taken graduate level courses are allowed to petition with their advisor's consent up to a maximum of 7 credits.

UW–Madison University Special

With program approval, students are allowed to count no more than 6 credits of coursework numbered 300 or above taken as a UW–Madison University Special student. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

Satisfactory progress depends on: maintaining a GPA of at least 3.0, adhering to the rule whereby students must take two courses within the department (or have the rule waived by petition), and fulfilling all academic requirements. Students who are not in good standing will not be given sections to teach as TAs, and those whose GPA goes below 3.0 are put on academic probation. If a semester of 3.0 is not attained during the subsequent semester, the student may be dismissed from the program.

ADVISOR / COMMITTEE

Each candidate will confer with the general advisor. The student and the advisor will plan a program that takes into account the candidate's interests, strengths and deficiencies. If, for example, the student has a strong undergraduate background in a particular period of literature, the advisor will not recommend further exposure to the same field. Likewise, a student with extensive experience abroad and/or undergraduate preparation in composition or conversation may not need further study in these areas.

All students must have a substantial meeting with their advisors every semester to review their progress and work out the best strategies for future coursework and degree progress.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

The M.A./Ph.D. qualifying exam is taken in the fourth or fifth semester of the M.A. program, very rarely beyond that.

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Guaranteed funding through teaching assistantships. Many additional sources of funding are available on a competitive basis, including the Advanced Opportunity Fellowship, summer research Mellon fellowships, one-semester dissertation fellowships, Title VI FLAS fellowships for summer and year-long foreign language study, Nave summer research travel grants, and numerous others.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Articulates, critiques, and elaborates the theories, methods, terminology and approaches to inquiry in Luso-Brazilian literary studies.
2. Identifies and pursues promising avenues of inquiry, finds and makes use of appropriate bibliography, analyzes literary or other cultural works, and develops speaking and writing skills.
3. Demonstrates knowledge and understanding of Luso-Brazilian literatures in a historical, socio-cultural and global context.
4. Evaluates or synthesizes information pertaining to questions or challenges in the field of study.
5. Communicates fluently and clearly in Portuguese in ways appropriate to the field of study.
6. Develops academic professionalization through conference participation in preparation for a career path related to the field.
7. Develops effective teaching skills (for beginning and intermediate classes).
8. Fosters professionalism in extracurricular activities that develop degree-related skills as well as enhance future professional life and a sense of citizenship.

PEOPLE

Spanish Faculty: Professors Beilin (modern Spanish literature), Bilbija (modern Spanish American literature), Close (modern Spanish American/trans-Atlantic literature), Corfis (medieval Spanish literature), De Ferrari (modern Spanish American literature), Egea (modern Spanish literature), Frantzen (second language acquisition and linguistics), Hildner (Golden Age literature), Hutchinson (Golden Age literature), Medina (modern Spanish American literature), Podestá (colonial Spanish American literature); Associate Professors Alcalá-Galán (Golden Age literature), Ancos-García (medieval Spanish literature), Goldgel-Carballo (colonial Spanish American literature), Hernández (modern Spanish American literature), Pellegrini (modern Spanish American literature), Rao (Spanish linguistics), Stafford (second language acquisition and linguistics), Tejedo-Herrero (Spanish linguistics); Assistant Professors Armstrong (Spanish linguistics), Cerezo Paredes (modern Spanish literature), Comparone (modern Spanish literature)

Portuguese Faculty: Professors Albuquerque (Brazilian literature and culture), Madureira (Portuguese, Brazilian, and Luso-African literature and culture), Sapega (Portuguese and Luso-African literature and culture); and Sanchez (Portuguese and Brazilian literature and culture)

PORTUGUESE, PH.D.

The degrees offered are the master of arts in Portuguese and the doctor of philosophy with a major in Portuguese. In addition, the department offers a doctoral minor in Spanish or Portuguese, consisting of 9 credits of graduate study.

An integrated curriculum in Portuguese languages, literatures, and linguistics provides training at the master's and Ph.D. levels and assures that graduates are prepared to contribute as professionals in the fields of teaching and research. An active program of research contributes to new knowledge in Spanish and Portuguese. A comprehensive group of courses is offered in rotation during the academic year so that candidates may take courses in all fields. Classes are conducted in Portuguese.

The department's graduate program in Portuguese is consistently among the finest in the country. Twenty to twenty-five teaching assistantships are offered each year to graduate candidates in Spanish and Portuguese. A full complement of courses in Portuguese, Brazilian, and Luso-African literatures, culture, and linguistics is offered on a regular basis.

Fellowships, scholarships, teaching assistantships, and project assistantships are available to qualified graduate degree candidates.

Students pursuing advanced degrees in this department are advised to include in their training work in other languages and literatures, art, social sciences, linguistics, film studies, and philosophy. A knowledge of other languages is strongly recommended for advanced work in Luso-Brazilian fields.

ADMISSIONS

M.A. students in Portuguese at the University of Wisconsin-Madison are admitted to doctoral studies in this department on the recommendation

of the M.A. examining committee upon successful completion of the Ph.D. qualifying examination.

A graduate student with the M.A. from another institution is admitted to the doctoral program by virtue of his/her acceptance by the department. A minimum graduate GPA of 3.4 (on a 4.0 scale) is required.

During the registration period, the student will be asked to supply supplementary information regarding courses taken previously, experience abroad, scope of readings in Portuguese and Brazilian literatures, and preparation in linguistics.

REQUIRED DOCUMENTATION FOR PHD APPLICATIONS

- Three letters of recommendation are required for all graduate student applicants, using the Graduate School's online application.
- Send one official copy of ALL university transcripts to the Department of Spanish and Portuguese. Notarized English translations should accompany ALL non-English transcripts.
- TOEFL test is required for ALL applicants whose native language is NOT English, or whose undergraduate instruction was NOT in English. For more information regarding the TOEFL, please see the Graduate School's Admissions Requirements (<https://grad.wisc.edu/admissions/requirements>).
- Reason for Graduate Study/Statement of Purpose: What are your reasons for graduate study? Please describe your current degree goals and your reasons for selecting your program(s). Your statement can be either in English or the program's language. It should not exceed three single-spaced pages, or the equivalent when double-spaced.
- A writing sample in Portuguese (e.g., a term-paper length) is required for all Ph.D. applicants. It should be eight to ten pages. The topic should be as close as possible to the field you wish to specialize in for the Ph.D. thesis.

APPLICATION DEADLINES

Fall term—January 5 of same year's fall term (i.e., January 5, 2019, for fall 2019)

Spring term—October 15 in year prior to spring term (i.e., October 15, 2019, for spring 2020)

All materials must be received either electronically or by postal mail to the Department of Spanish and Portuguese by these dates.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Prospective students should see the program website (<https://spanport.wisc.edu/prospective-grad-funding>) for funding information.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 54 credits

Minimum Residence Credit Requirement 51 credits

Minimum Graduate Coursework Requirement In practice all doctoral coursework (with the exception of some language requirements or some doctoral minors) is designed exclusively for graduate students. At least half of the required coursework must be in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements No other grade requirements.

Assessments and Examinations Preliminary Examinations

The Preliminary Examination must be taken after course requirements have been met. The prelim has two parts: a written part and an oral part. The written part of the exam has two components: 1) a series of take-home exams and 2) a 5 to 10-page dissertation prospectus plus bibliography. An oral examination defense follows the written portions of the Preliminary Examination. The oral exam defense is approximately two hours long, at the discretion of the examining committee. It should cover both the take-home examinations and the dissertation prospectus. The candidate will receive a grade of pass or fail in the preliminary examination. In the case of failing the exam, it could be retaken once within a month (after consultation with the adviser). Should the dissertation prospectus be approved, the candidate will have a maximum of three months to officially defend a dissertation proposal.

The Doctoral Dissertation

The final oral examination for the Ph.D. (the dissertation defense) will concentrate solely on the dissertation and generally does not exceed two hours in length. The examining committee is composed a minimum of four members, at least one of whom must be from outside the student's program in Portuguese, and at least three of whom, including the dissertation director, should be designated as readers. This examination is held at least two weeks after the dissertation is submitted.

Language Requirements A knowledge of several languages is essential for doctoral research. Therefore, students are urged to fulfill the language requirements as early as possible in their doctoral studies. In any case, they must be fulfilled prior to the Preliminary Examination. The candidate must demonstrate advanced proficiency in a minimum of two languages, to be determined in consultation with the adviser. The most common languages are Spanish, French, Italian, Latin, German, and Arabic, depending on the candidate's major and minor. Advanced proficiency is defined as six college semesters with a grade of B or better. An advanced pass on the UW Division of University Outreach, Liberal Studies Reading Knowledge Examinations in French and German for graduate students will be accepted as an alternative. Exceptions to the above policies may be petitioned by the adviser to the Departmental Committee.

Doctoral Minor/Breadth Requirements	All doctoral students are required to complete a minor. The doctoral candidate must present a minor in work done outside of Portuguese. The minor should be in an area related to the major field of interest. Spanish, French, Comparative Literature, Linguistics, and Latin American, Caribbean and Iberian Studies are among the most common minors. Distributed minors (for a minimum of 9 credits) must be approved by the adviser. Requirements for the minor are established by the respective department. Since the minor should complement the student's major area of concentration, the student should arrange their program with the minor department as early as possible in the doctoral career. For a minor in Spanish, students should have a minimum of nine credits at the 500 level or above. Three of these credits must be taken as an advanced level course.
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REQUIRED COURSES

The Portuguese Ph.D. program in the Department of Spanish and Portuguese at the University of Wisconsin-Madison offers the following areas of study:

1. Portuguese Literature from its origins to Eça de Queirós
2. Portuguese Literature of the 20th and 21st centuries
3. Brazilian Literature to 1900
4. Brazilian Literature from 1900
5. African Literature in Portuguese

In the doctoral program the student selects a major and two supporting fields. The major is the area of specialization; the student is expected to have a thorough knowledge of the currents, primary works and critical bibliography pertaining to it. The student is expected to know the most significant writers and works as well as the most important currents and developments in the supporting fields; additionally, the student must have a good knowledge of critical bibliography. The selection of the major and supporting fields is made by the beginning of the second semester of doctoral studies.

Specific course requirements are as follows:

Code	Title	Credits
Requirements ^{1, 2}		
Major Area ³		9
Supporting Field 1		6
Supporting Field 2		6
Literary Theory		3

Note:

Students, in consultation with their adviser, should ensure that they have a minimum of five advanced courses beyond the M.A. At least two of these courses must be in the major. One of these advanced courses may be taken outside the Portuguese program or transferred from another institution, with the adviser's consent.

¹ Course credits earned in our M.A. program and any transfer credits used to satisfy M.A. requirements, **do satisfy** the Ph.D. course requirements. The only exceptions are the following courses, which **do not satisfy** the Ph.D. course requirements:
 PORTUG 311 Fourth Year Composition and Conversation
 PORTUG 312 Fourth Year Composition and Conversation

PORTUG 330 History of the Portuguese Language
 PORTUG 361 Portuguese Civilization
 PORTUG 362 Brazilian Civilization
 PORTUG 707 Portuguese M.A. Proseminar. The proseminar is for M.A. students only and does not count for doctoral credit.

- ² A maximum of 3 credits of independent study (PORTUG 899 Independent Reading) in each of the areas of concentration may be used, with prior departmental approval, when corresponding courses are not offered in a timely fashion.
- All graduate students who are candidates for a Ph.D. degree in Portuguese in this department must take a minimum of two graduate-level courses in Spanish and/or Portuguese for credit each semester, exclusive of Independent Reading (PORTUG 899 Independent Reading) courses, with the following exceptions:
 1. In the semester before taking the Preliminary Examination, a doctoral student may count an PORTUG 899 Independent Reading designed to work toward the dissertation proposal as one of the two courses, as long as another course is taken in the department. This exception may only apply once, even in the case that the Preliminary Examination is postponed.
 2. Students may count as exceptions up to three courses taken toward their Ph.D. minor. Every time that students request this exemption they must fill out the appropriate form for this purpose to be signed by the adviser and given to the Graduate Coordinator.
 - An audited course does not count toward the two-course minimum requirement.
 - If the two-course rule impedes the student's progress toward completion of the degree, students may petition an exception, with the written support of their adviser. This regulation does not apply to students who have passed the Ph.D. Preliminary Examination.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

After one semester in residence here, incoming Ph.D. graduate students from other universities may petition the Graduate Studies Committee to transfer graduate credits taken at their previous university to satisfy requirements here. In the Portuguese Ph.D., a maximum of three courses (9 credits) may be transferred from their previous program toward their degree requirements, except in the major field, and no more than three credits may be transferred per supporting field, totaling six credits. Each petition must be approved by the advisor,

validated by a faculty member specializing in that field, and assessed by the Graduate Studies Committee with regard to its level and appropriateness. Only in rare circumstances will exceptions be considered.

Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

No credits from undergraduate courses from a UW–Madison undergraduate degree are allowed to count toward the degree, but students who have taken graduate level courses are allowed to petition with their advisor's consent up to a maximum of 7 credits.

UW–Madison University Special

No credits from undergraduate courses from a UW–Madison undergraduate degree are allowed to count toward the degree, but students who have taken graduate level courses are allowed to petition with their advisor's consent up to a maximum of 7 credits.

PROBATION

Satisfactory progress depends on: maintaining a GPA of at least 3.0, adhering to the rule whereby students must take two courses within the department (or have the rule waived by petition), and fulfilling all academic requirements. Students who are not in good standing will not be given sections to teach as TAs, and those whose GPA goes below 3.0 are put on academic probation. If a semester of 3.0 is not attained during the subsequent semester, the student may be dismissed from the program.

ADVISOR / COMMITTEE

The doctoral candidate arranges their program with an assigned graduate advisor, representing one of the areas of concentration, at the beginning of their studies in this department. The advisor represents a field in which the student has expressed primary interest. The candidate may, of course, seek advice and suggestions from individual professors, but it is important to maintain frequent and ongoing contact with the regular advisor. At the beginning of the second semester in residence the academic advisor and the candidate make a detailed review of the first semester's progress.

All students must have a substantial meeting with their advisor every semester to review their progress and work out the best strategies for future coursework and degree progress.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

The Department of Spanish and Portuguese enforces the Graduate School policy that establishes a five-year deadline for completion and defense of the doctoral dissertation, unless they receive an extension. If the candidate does not complete the dissertation within five years of the preliminary examination, the candidate must retake this examination.

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements;

that coursework may not count toward Graduate School credit requirements.

OTHER

Guaranteed funding through teaching assistantships. Many additional sources of funding are available on a competitive basis, including the Advanced Opportunity Fellowship, summer research Mellon fellowships, one-semester dissertation fellowships, Title VI FLAS fellowships for summer and year-long foreign language study, Nave summer research travel grants, and numerous others.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Articulates research problems, potentials, and limits with respect to theory, knowledge, or practice within the field of Luso-Brazilian literary/cultural studies, with a view to interdisciplinarity.
2. Formulates ideas, concepts, and theoretical approaches beyond the current boundaries of knowledge and practice within Luso-Brazilian literary/cultural studies.
3. Develops archival and/or bibliographic research skills or other evidence-gathering techniques with the aim of furthering historical and cultural knowledge of the specific field of inquiry.
4. Produces scholarship that makes a substantive contribution to Luso-Brazilian literary/cultural studies.
5. Demonstrates breadth within learning experiences.
6. Advances contributions of the field of study to society.
7. Communicates complex ideas in both Portuguese and English in a clear and understandable manner, and demonstrates reading knowledge of two other languages pertinent to the field of inquiry.
8. Develops speaking and writing skills necessary for articulating cogent and original arguments that enter into conversation with new and existing critical paradigms in literary and cultural studies.
9. Develops academic professionalization through conference participation and/or scholarly exchange in preparation for a career path related to the field.
10. Develops and demonstrates effective teaching skills (for intermediate and advanced classes).
11. Fosters professionalism in extracurricular activities that develop degree-related skills as well as enhance future professional life and a sense of citizenship.

PEOPLE

Spanish Faculty: Professors Beilin (modern Spanish literature), Bilbija (modern Spanish American literature), Close (modern Spanish American/

trans-Atlantic literature), Corfis (medieval Spanish literature), De Ferrari (modern Spanish American literature), Egea (modern Spanish literature), Frantzen (second language acquisition and linguistics), Hildner (Golden Age literature), Hutchinson (Golden Age literature), Medina (modern Spanish American literature), Podestá (colonial Spanish American literature); Associate Professors Alcalá-Galán (Golden Age literature), Ancos-García (medieval Spanish literature), Goldgel-Carballo (colonial Spanish American literature), Hernández (modern Spanish American literature), Pellegrini (modern Spanish American literature), Rao (Spanish linguistics), Stafford (second language acquisition and linguistics), Tejedo-Herrero (Spanish linguistics); Assistant Professors Armstrong (Spanish linguistics), Cerezo Paredes (modern Spanish literature), Comparone (modern Spanish literature)

Portuguese Faculty: Professors Albuquerque (Brazilian literature and culture), Madureira (Portuguese, Brazilian, and Luso-African literature and culture), Sapega (Portuguese and Luso-African literature and culture); and Sanchez (Portuguese and Brazilian literature and culture)

SPANISH, DOCTORAL MINOR

REQUIREMENTS

Candidates for a doctoral minor in Spanish should have a minimum of 9 credits at the 500 level or above. Three of these credits must be taken as an advanced-level course, 600 level or above.

Individual advisors should not sign off on the minor in Spanish or Portuguese. Students should be sent to the director of graduate studies in the Department of Spanish and Portuguese for signature and approval.

PEOPLE

Spanish Faculty: Professors Beilin (modern Spanish literature), Bilbija (modern Spanish American literature), Close (modern Spanish American/trans-Atlantic literature), Corfis (medieval Spanish literature), De Ferrari (modern Spanish American literature), Egea (modern Spanish literature), Frantzen (second language acquisition and linguistics), Hildner (Golden Age literature), Hutchinson (Golden Age literature), Medina (modern Spanish American literature), Podestá (colonial Spanish American literature); Associate Professors Alcalá-Galán (Golden Age literature), Ancos-García (medieval Spanish literature), Goldgel-Carballo (colonial Spanish American literature), Hernández (modern Spanish American literature), Pellegrini (modern Spanish American literature), Rao (Spanish linguistics), Stafford (second language acquisition and linguistics), Tejedo-Herrero (Spanish linguistics); Assistant Professors Armstrong (Spanish linguistics), Cerezo Paredes (modern Spanish literature), Comparone (modern Spanish literature)

Portuguese Faculty: Professors Albuquerque (Brazilian literature and culture), Madureira (Portuguese, Brazilian, and Luso-African literature and culture), Sapega (Portuguese and Luso-African literature and culture); and Sanchez (Portuguese and Brazilian literature and culture)

SPANISH, M.A.

The degrees offered are the master of arts and doctor of philosophy in Spanish. In addition, the department offers a doctoral minor in Spanish or Portuguese, consisting of 9 credits of graduate study.

An integrated curriculum in Spanish language, literatures, cultures, and linguistics provides training at the master's and Ph.D. levels and assures that graduates are prepared to contribute as professionals in the fields of teaching and research. An active program of research contributes to new knowledge in Spanish. A comprehensive group of courses is offered in rotation during the academic year so that candidates may take courses in all fields. Classes are conducted in Spanish.

The department's graduate program in Spanish is consistently among the finest in the country. Teaching assistantships are offered each year to graduate candidates in Spanish and Portuguese. A full complement of courses in Spanish and Spanish American, literatures, cultures, and linguistics is offered on a regular basis.

Fellowships, scholarships, teaching assistantships, and project assistantships are available to qualified graduate degree candidates.

Students pursuing advanced degrees in this department are advised to include in their training work in other languages and literatures, art, social sciences, linguistics, film studies, and philosophy. Knowledge of other languages is required for advanced work in Hispanic and Luso-Brazilian fields.

ADMISSIONS

Admission to candidacy for the master's degree presupposes an undergraduate major in Spanish at UW-Madison or its equivalent.

Applicants with a B.A. in Spanish must have an undergraduate GPA of at least 3.0 on a 4.0 scale, and a GPA in Spanish courses of at least 3.25. Exceptions to these requirements may be made by the admissions committee.

During the registration period, the student will be asked to supply supplementary information regarding courses taken previously, experience abroad, scope of readings in Spanish and Spanish#American literatures, and preparation in linguistics.

All candidates will take an examination for written proficiency. An unsatisfactory performance, as determined by the examiners, on that written examination will require the student to take Spanish 323 (Advanced Language Practice with Emphasis on Expository Writing). Only those so required to take Spanish 323 will receive graduate credit for it, though it will not count toward any of the nine curriculum areas. Candidates who are not native speakers of Spanish will take an examination for oral proficiency. An unsatisfactory performance on the oral examination will require the student to take Spanish 320 (Spanish Phonetics). However, Spanish 320 will not count as graduate credit.

REQUIRED DOCUMENTATION FOR MA APPLICATIONS

- Three letters of recommendation are required for all graduate student applicants, using the Graduate School's online application.
- Send one official copy of ALL university transcripts to the Department of Spanish and Portuguese. Notarized English translations should accompany ALL non-English transcripts.

- TOEFL test is required for ALL applicants whose native language is NOT English, or whose undergraduate instruction was NOT in English. For more information regarding the TOEFL, please see the Graduate School's Admissions Requirements (<https://grad.wisc.edu/admissions/requirements>).
- Reason for Graduate Study/Statement of Purpose: What are your reasons for graduate study? Please describe your current degree goals and your reasons for selecting your program(s). Your statement can be either in English or Spanish. It should not exceed three single-spaced pages, or the equivalent when double-spaced.

APPLICATION DEADLINES

Fall term—January 5 of same year's fall term (i.e., January 5, 2019, for fall 2019)

Spring term—October 15 in year prior to spring term (i.e., October 15, 2019, for spring 2020)

All materials must be received either electronically or by postal mail to the Department of Spanish and Portuguese by these dates.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Prospective students should see the program website (<http://spanport.wisc.edu/prospective-grad-funding>) for funding information.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 32 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement Students are required to take a minimum of 18 credits of graduate coursework. In practice it is rare for students not to take 100% of their credits in graduate coursework. Courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements No other grade requirements.

Assessments and Examinations An M.A./Ph.D. qualifying examination is required. The M.A./Ph.D. qualifying examination covers the nine curriculum areas, of which the candidate must take four. Students with a concentration in literature must take a course in the literary area in which they choose not to be examined. Students with a concentration in literature are expected to take four exams in four literature areas. Students with a concentration in linguistics may take four exams in four linguistics areas, two in linguistics and two in literature, or three in linguistics and one in literature. Each of the areas is tested by a 1.5-hour exam, consisting of some combination of the following: short questions (definitions, terminology, key concepts, etc.), specific questions on key works, and/or general essay questions (dealing with textual analysis, literary history, contrastive studies, linguistic problem solving and argumentation, etc.). At least one part of each area of the M.A./Ph.D. qualifying examination must be written in Spanish.

Language Requirements No language requirements beyond English and Spanish. However, candidates who expect to go on to the Doctorate are urged to acquire the basic reading knowledge of a second foreign language before taking the M.A. examination. It should be another Romance Language, Latin, Arabic, or German. Other languages may be considered, with the approval of the department.

REQUIRED COURSES

The course of studies leading to the Master of Arts degree in Spanish in the Department of Spanish and Portuguese at the University of Wisconsin-Madison is a flexible one designed to introduce the candidate to Spanish and Spanish American literatures, literary criticism, and linguistics. The program is for students who complete their academic career at the M.A. as well as for those who decide to pursue the Ph.D.

Its general, non-specialized approach is beneficial to both types. The Master's program offers a panorama of selected works, a general view of literary and linguistic currents, and an introduction to literary and linguistic research.

All of the department's graduate courses besides the survey courses will be considered advanced courses. First-year M.A. students who wish to take a seminar need the permission of the adviser and consent of the instructor.

Course work in another department of the University of Wisconsin-Madison can be counted toward the minimum 32-credit requirement if it has been approved by the Chair in consultation with the Departmental Committee, except if the adviser approves taking up to six credits in another language.

SPANISH 545 College Teaching of Spanish is required of all new Teaching Assistants.

- Literary theory courses (SPANISH 627 Historia de Teoria Literaria: de Platon Al Siglo XVIII and SPANISH 628 Historia de Teoria Literaria: Siglos XIX-XX) count only as electives in the M.A. program, but do satisfy the Ph.D. literary theory requirement.
- All graduate students who are candidates for an M.A. degree in this department must take a minimum of two graduate-level courses in Spanish and/or Portuguese for credit each semester, exclusive of Independent Reading courses and audited courses. A student who is not in compliance with this requirement is not making good progress toward the degree, and will therefore be deemed not in good academic standing. Advisers should be aware that only the Graduate Studies Committee may grant exemptions.

Specific course requirements are as follows:

Spanish M.A. with a concentration in literature ¹

The Spanish Master's Degree program with a concentration in literature is based on five curriculum areas:

1. Medieval Literature
2. Golden Age Literature
3. Modern Peninsular Literature
4. Spanish-American Literature I (Colonial through Modernismo)
5. Spanish-American Literature II (From Modernismo to the present)

Code	Title	Credits
Required Courses ^{2,3}		

Choose one course from five of the nine areas, one of which must be in a linguistics field ⁴	15
SPANISH 545 College Teaching of Spanish	2
Electives	15
Students may take up to 6 credits of language courses other than Spanish or English (see "Language Requirements" below)	
Remaining credits typically taken in literature areas in which the student will complete an exam	
Total Credits	32

- ¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.
- ² SPANISH 323 Advanced Language Practice with Emphasis on Expository Writing, SPANISH 320 Spanish Phonetics and SPANISH 545 College Teaching of Spanish **do not** count toward any of the nine literary or linguistic areas.
- ³ Both literature and linguistics M.A. students must take at least 6 credits in advanced courses, which are 600-level and above.
- ⁴ Students with a concentration in literature must take a course in the literary area in which they choose not to be examined on the M.A./Ph.D. qualifying exam.

Literature M.A. students are strongly encouraged to take these survey courses:

Code	Title	Credits
Recommend Survey Courses		
SPANISH 501	Survey of Spanish American Literature from the Discovery to Modernismo	3
SPANISH 502	Survey of Spanish American Literature from Modernismo to the Present	3
SPANISH/MEDIEVAL 503	Survey of Medieval Literature (Part 1)	3
SPANISH/MEDIEVAL 504	Survey of Medieval Literature (Part 2)	3
SPANISH 505	Advanced Survey of Spanish Literature (Golden Age)	3
SPANISH 506	Advanced Survey of Spanish Literature (Modern Peninsular)	3

The department plans to offer the following sequence of survey courses in literature on a two-year rotating basis. This list is provided purely for informational purposes and is not intended as a list of mandatory courses:

Code	Title	Credits
Year 1		
<i>Semester 1</i>		
SPANISH/MEDIEVAL 503	Survey of Medieval Literature	3
SPANISH 505	Advanced Survey of Spanish Literature	3
<i>Semester 2</i>		

SPANISH/ MEDIEVAL 504	Survey of Medieval Literature	3
SPANISH 506	Advanced Survey of Spanish Literature	3
Year 2		
<i>Semester 3</i>		
SPANISH 501	Survey of Spanish American Literature from the Discovery to Modernismo	3
<i>Semester 4</i>		
SPANISH 502	Survey of Spanish American Literature from Modernismo to the Present	3
Total Credits		18

Spanish M.A. with a concentration in linguistics ¹

The Spanish Master's Degree program with a concentration in linguistics is based on four curriculum areas:

1. Phonetics & Phonology
2. Syntax
3. Language Variation & Change
4. Applied Linguistics & Second Language Acquisition.

Code	Title	Credits
Required Courses ^{2,3}		
Choose 3 credits from one of the following areas:		3
	Phonetics & Phonology	
	Syntax	
	Language Variation & Change	
Choose 3 credits in Applied Linguistics & Second Language Acquisition		3
Choose 6 credits from any of the linguistics areas		6
One literature course		3
SPANISH 545	College Teaching of Spanish	2
Electives		15
Students may take up to 6 credits of language courses other than Spanish or English (see "Language Requirements" below)		
Remaining credits typically taken in linguistics areas in which the student will complete an exam		
Total Credits		32

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

² SPANISH 323 Advanced Language Practice with Emphasis on Expository Writing, SPANISH 320 Spanish Phonetics, and SPANISH 545 College Teaching of Spanish **do not** count toward any of the nine literary or linguistic areas.

³ Both literature and linguistics M.A. students must take at least 6 credits in advanced courses, which are 600-level and above.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

Master's students are not allowed to transfer in graduate credits from other institutions.

UW–Madison Undergraduate

No credits from undergraduate courses from a UW–Madison undergraduate degree are allowed to count toward the degree, but students who have taken graduate level courses are allowed to petition with their advisor's consent up to a maximum of 7 credits.

UW–Madison University Special

With program approval, students are allowed to count no more than 6 credits of coursework numbered 300 or above taken as a UW–Madison University Special student. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

Satisfactory progress depends on: maintaining a GPA of at least 3.0, adhering to the rule whereby students must take two courses within the department (or have the rule waived by petition), and fulfilling all academic requirements. Students who are not in good standing will not be given sections to teach as TAs, and those whose GPA goes below 3.0 are put on academic probation. If a semester of 3.0 is not attained during the subsequent semester, the student may be dismissed from the program.

ADVISOR / COMMITTEE

Each candidate will choose one of seven general advisers. The student and the adviser will plan a program that takes into account the candidate's interest, strengths and deficiencies. If, for example, the student has a strong undergraduate background in a particular period of literature, the adviser will not recommend further exposure to the same field. Likewise, a student with extensive experience abroad and/or undergraduate preparation in composition or conversation may not need further study in these areas.

All students must have a substantial meeting with their adviser every semester to review their progress and work out the best strategies for future coursework and degree progress.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

The M.A./Ph.D. qualifying exam is taken in the fourth or fifth semester of the M.A. program, very rarely beyond that.

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Guaranteed funding through teaching assistantships. Many additional sources of funding are available on a competitive basis, including the Advanced Opportunity Fellowship, summer research Mellon fellowships, one-semester dissertation fellowships, Title VI FLAS fellowships for summer and year-long foreign language study, Nave summer research travel grants, and numerous others.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Articulates, critiques, and elaborates the theories, methods, terminology and approaches to inquiry in Hispanic literary studies and/or Spanish linguistics.
2. Identifies and pursues promising avenues of inquiry, finds and makes use of appropriate bibliography, analyzes literary/cultural works or linguistic evidence, and develops speaking and writing skills.
3. Demonstrates knowledge and understanding of Hispanic literatures and/or Spanish linguistics in a historical, socio-cultural and global context.
4. Evaluates or synthesizes information pertaining to questions or challenges in the field of study.
5. Communicates fluently and clearly in Spanish in ways appropriate to the field of study.
6. Develops academic professionalization through conference participation in preparation for a career path related to the field.
7. Develops effective teaching skills (for beginning and intermediate classes).
8. Fosters professionalism in extracurricular activities that develop degree-related skills as well as enhance future professional life and a sense of citizenship.

PEOPLE

Spanish Faculty: Professors Beilin (modern Spanish literature), Bilbija (modern Spanish American literature), Close (modern Spanish American/trans-Atlantic literature), Corfis (medieval Spanish literature), De Ferrari (modern Spanish American literature), Egea (modern Spanish literature), Frantzen (second language acquisition and linguistics), Hildner (Golden Age literature), Hutchinson (Golden Age literature), Medina (modern Spanish American literature), Podestá (colonial Spanish American literature); Associate Professors Alcalá-Galán (Golden Age literature), Ancos-García (medieval Spanish literature), Goldgel-Carballo (colonial Spanish American literature), Hernández (modern Spanish American literature), Pellegrini (modern Spanish American literature), Rao (Spanish linguistics), Stafford (second language acquisition and linguistics), Tejedo-Herrero (Spanish linguistics); Assistant Professors Armstrong (Spanish linguistics), Cerezo Paredes (modern Spanish literature), Comparone (modern Spanish literature)

Portuguese Faculty: Professors Albuquerque (Brazilian literature and culture), Madureira (Portuguese, Brazilian, and Luso-African literature and culture), Sapega (Portuguese and Luso-African literature and culture); and Sanchez (Portuguese and Brazilian literature and culture)

SPANISH, PH.D.

The degrees offered are the master of arts and doctor of philosophy in Spanish. In addition, the department offers a doctoral minor in Spanish or Portuguese, consisting of 9 credits of graduate study.

An integrated curriculum in Spanish language, literatures, cultures, and linguistics provides training at the master's and Ph.D. levels and assures that graduates are prepared to contribute as professionals in the fields of teaching and research. An active program of research contributes to new knowledge in Spanish. A comprehensive group of courses is offered in rotation during the academic year so that candidates may take courses in all fields. Classes are conducted in Spanish.

The department's graduate program in Spanish is consistently among the finest in the country. Teaching assistantships are offered each year to graduate candidates in Spanish and Portuguese. A full complement of courses in Spanish and Spanish American, literatures, cultures, and linguistics is offered on a regular basis.

Fellowships, scholarships, teaching assistantships, and project assistantships are available to qualified graduate degree candidates.

Students pursuing advanced degrees in this department are advised to include in their training work in other languages and literatures, art, social sciences, linguistics, film studies, and philosophy. Knowledge of other languages is required for advanced work in Hispanic fields.

ADMISSIONS

M.A. students in Spanish at the University of Wisconsin-Madison are admitted to doctoral studies in this department on the recommendation of the M.A. examining committee upon successful completion of the Ph.D. qualifying examination.

A graduate student with the M.A. from another institution is admitted to the doctoral program by virtue of his/her acceptance by the department. A minimum graduate GPA of 3.4 (on a 4.0 scale) is required.

During the registration period, the student will be asked to supply supplementary information regarding courses taken previously, experience abroad, scope of readings in Spanish and Spanish American literatures, and preparation in linguistics.

REQUIRED DOCUMENTATION FOR PHD APPLICATIONS

- Three letters of recommendation are required for all graduate student applicants, using the Graduate School's online application.
- Send one official copy of ALL university transcripts to the Department of Spanish and Portuguese. Notarized English translations should accompany ALL non-English transcripts.
- TOEFL test is required for ALL applicants whose native language is NOT English, or whose undergraduate instruction was NOT in English. For more information regarding the TOEFL, please see the Graduate School's Admissions Requirements (<https://grad.wisc.edu/admissions/requirements>).
- Reason for Graduate Study/Statement of Purpose: What are your reasons for graduate study? Please describe your current degree goals and your reasons for selecting your program(s). Your statement can be either in English or Spanish. It should not exceed three single-spaced pages, or the equivalent when double-spaced.
- A writing sample in Spanish (e.g., term-paper length) is required for all Ph.D. applicants. It should be eight to ten pages. The topic should be as close as possible to the field you wish to specialize in for the Ph.D. thesis.

APPLICATION DEADLINES

Fall term—January 5 of same year's fall term (i.e., January 5, 2019, for fall 2019)

Spring term—October 15 in year prior to spring term (i.e., October 15, 2019, for spring 2020)

All materials must be received either electronically or by postal mail to the Department of Spanish and Portuguese by these dates.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Prospective students should see the program website (<http://spanport.wisc.edu/prospective-grad-funding>) for funding information.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 51 credits

Minimum Residence Credit Requirement 32 credits

Minimum Graduate Coursework Requirement A minimum of 33 credits out of 51 total must be in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle>).

In practice all doctoral coursework (with the exception of some language requirements or some doctoral minors) is designed exclusively for graduate students.

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements No other grade requirements.

Assessments and Examinations Preliminary Examinations:
The Preliminary Examination must be taken after course requirements have been met. The prelim has two parts: a written part and an oral part. The written part of the exam has two components: 1) a series of take-home exams and 2) a 5 to 10-page dissertation prospectus plus bibliography. An oral examination defense follows the written portions of the Preliminary Examination. The oral exam defense is approximately two hours long, at the discretion of the examining committee. It should cover both the take-home examinations and the dissertation prospectus. The candidate will receive a grade of pass or fail in the preliminary examination. In the case of failing the exam, it could be retaken once within a month (after consultation with the adviser). Should the dissertation prospectus be approved, the candidate will have a maximum of three months to officially defend a dissertation proposal.

The Doctoral Dissertation:

The final oral examination for the Ph.D. (the dissertation defense) will concentrate solely on the dissertation and generally does not exceed two hours in length. The examining committee is composed of a minimum of four members, at least one of whom must be from outside the student's program in Spanish, and at least three of whom, including the dissertation director, should be designated as readers. This examination is held at least two weeks after the dissertation is submitted.

Language Requirements Knowledge of other languages is essential for doctoral research. Therefore, students are urged to fulfill the language requirements as early as possible in their doctoral studies. In any case, they must be fulfilled prior to the Preliminary Examination. Candidates in Spanish literature or linguistics must demonstrate advanced proficiency in two languages that have relevance for his/her area of research interests and have been selected in consultation with the advisor. Advanced competency is defined as six college semesters with a grade of B or better. An advanced pass on the UW Division of University Outreach, Liberal Studies Reading Knowledge Examinations in French and German for graduate students will be accepted as an alternative. The most common languages are Portuguese, French, Italian, Latin, German, and Arabic, but may also include such languages as Turkish, Catalan, Galician, Maya, Nahuatl, Quichua, etc., depending on the candidate's major and minor.

Candidates in the area of Applied Linguistics & Second Language Acquisition will replace one language with two graduate-level Research Design courses with a grade of B or better, chosen in consultation with the student's advisor.

Doctoral Minor/Breadth Requirements All doctoral students are required to complete a minor.

The doctoral candidate must present a minor in work done outside of Spanish. The minor should be in an area related to the major field of interest. Portuguese, French, Comparative Literature, and Latin American, Caribbean and Iberian Studies are among the most common minors. Distributed minors (for a minimum of 9 credits) must be approved by the advisor. Requirements for the minor are established by the respective department. Since the minor should complement the student's major area of concentration, the student should arrange their program with the minor department as early as possible in the doctoral career. For a minor in Portuguese, the student should have a minimum of 9 credits beyond PORTUG 301/PORTUG 302. Also, courses taken to fulfill the language requirement cannot count toward the minor in Portuguese. Similarly, courses taken for a minor in Educational Psychology, Curriculum & Instruction, or Second Language Acquisition cannot also be counted as Research Design courses.

REQUIRED COURSES

In the Spanish Ph.D., the student selects a major area and two supporting fields, either in the concentration of literature or linguistics. The major is the area of specialization; the student is expected to have a thorough knowledge of the currents, primary works and critical bibliography pertaining to it. The student is expected to know the most significant writers and works (in the Spanish Ph.D. with a concentration in literature) or the most significant linguistic schools and approaches (in the Spanish Ph.D. with a concentration in linguistics) as well as the most important currents and developments in the two supporting fields; additionally, the student must have a good knowledge of critical bibliography. The program of studies leading toward the Ph.D. in this Department provides multiple opportunities for the development of analytical skills, and integrated with those skills an extensive knowledge of theoretical issues. The selection of the major and supporting fields is made by the beginning of the second semester of doctoral studies.

- All graduate students who are candidates for a Ph.D. degree in Spanish in this department must take a minimum of two graduate-level courses in Spanish and/or Portuguese for credit each semester, exclusive of Independent Reading (SPANISH 899 Independent Reading) courses, with the following exceptions:
 1. In the semester before taking the Preliminary Examination, a doctoral student may count an SPANISH 899 Independent Reading designed to work toward the dissertation proposal as one of the two courses, as long as another course is taken in the department. This exception may only apply once, even in the case that the Preliminary Examination is postponed.
 2. Students may count as exceptions up to three courses taken toward their Ph.D. minor. Every time that students request this exemption they must fill out the appropriate form for this purpose to be signed by the advisor and given to the Graduate Coordinator.
- An audited course does not count toward the two-course minimum requirement.
- If the two-course rule impedes the student's progress toward completion of the degree, students may petition an exception, with

the written support of their advisor. This regulation does not apply to students who have passed the Ph.D. Preliminary Examination.

Specific course requirements are as follows:

Spanish Ph.D. with a concentration in literature ¹

The Spanish Ph.D. program with a concentration in literature in the Department of Spanish and Portuguese at the University of Wisconsin–Madison offers five areas of study:

1. Medieval Literature
2. Golden Age Literature
3. Modern Peninsular Literature
4. Spanish American I Literature (Colonial to 1900)
5. Spanish American II Literature (20th and 21st Century)

A linguistics field may be used as a supporting field only, provided written consent of the graduate advisor is obtained.

In the doctoral program the student selects a major, two supporting fields, and takes one survey or advanced course in each of the two remaining fields.

Code Requirements ^{2,3}	Title	Credits
Major Area		12
Supporting Field 1		6
Supporting Field 2		6
Remaining Field 1		3
Remaining Field 2		3
Literary Theory		3

Note:

Students, in consultation with their advisor, should ensure that they have a minimum of five advanced courses beyond the M.A. At least two of the advanced courses must be in the major. One of these advanced courses may be taken outside the department, with the advisor's consent. An advanced course is defined as 600 level, or above.

- ¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.
- ² Course credits earned in our M.A. program (with the exception of SPANISH 545 College Teaching of Spanish and SPANISH 323 Advanced Language Practice with Emphasis on Expository Writing) and any transfer credits used to satisfy M.A. requirements, **do satisfy** the Ph.D. course requirements.
- ³ A maximum of 3 credits of independent study (SPANISH 899 Independent Reading) in each of the areas of concentration may be used, with prior departmental approval, when corresponding courses are not offered in a timely fashion.

Spanish Ph.D. with a concentration in linguistics ¹

The Spanish Ph.D. program with a concentration in linguistics in the Department of Spanish and Portuguese at the University of Wisconsin–Madison offers three areas of study:

1. Theoretical/Formal Spanish Linguistics
2. Language Variation and Change

3. Applied Linguistics and Second Language Acquisition

In the doctoral program the student selects a major area from the three areas; the other two automatically become supporting fields.

Code Requirements ^{2,3}	Title	Credits
Major Area		12
Supporting Field 1		6
Supporting Field 2		6
<i>For Students whose major area is Applied Linguistics and SLA:</i>		
Two graduate-level Research Design courses chosen in consultation with the student's advisor. (See "Language Requirements" below)		6

Note:

Students, in consultation with their advisor, should ensure that they have a minimum of five advanced courses beyond the M.A. At least two of the advanced courses must be in the major. One of these advanced courses may be taken outside the department, with the advisor's consent. An advanced course is defined as 600 level, or above.

- ¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.
- ² Course credits earned in our M.A. program (with the exception of SPANISH 545 College Teaching of Spanish and SPANISH 323 Advanced Language Practice with Emphasis on Expository Writing) and any transfer credits used to satisfy M.A. requirements, **do satisfy** the Ph.D. course requirements.
- ³ A maximum of 3 credits of independent study (SPANISH 899 Independent Reading) in each of the areas of concentration may be used, with prior departmental approval, when corresponding courses are not offered in a timely fashion.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

A Graduate Program Handbook containing all of the program's policies and requirements is forthcoming from the program.

PRIOR COURSEWORK

Graduate Work from Other Institutions

After one semester in residence here, incoming Ph.D. graduate students from other universities may petition the Graduate Studies Committee to transfer graduate credits taken at

their previous university to satisfy requirements here. In the Spanish Ph.D., a maximum of three courses (9 credits) may be transferred from their previous program toward their degree requirements, except in the major field, and no more than three credits may be granted in one but not both of the student's supporting fields. Each petition must be approved by the advisor, validated by a faculty member specializing in that field, and assessed by the Graduate Studies Committee with regard to its level and appropriateness. Only in rare circumstances will exceptions be considered.

Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

No credits from undergraduate courses from a UW–Madison undergraduate degree are allowed to count toward the degree, but students who have taken graduate level courses are allowed to petition with their advisor's consent up to a maximum of 7 credits.

UW–Madison University Special

With program approval, students are allowed to count no more than 6 credits of coursework numbered 300 or above taken as a UW–Madison University Special student. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

within five years of the preliminary examination, the candidate must retake this examination.

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER

Guaranteed funding through teaching assistantships. Many additional sources of funding are available on a competitive basis, including the Advanced Opportunity Fellowship, summer research Mellon fellowships, one-semester dissertation fellowships, Title VI FLAS fellowships for summer and year-long foreign language study, Nave summer research travel grants, and numerous others.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. (Literature) Articulates research problems, potentials, and limits with respect to theory, knowledge, or practice within the field of Hispanic literary/cultural studies, with a view to interdisciplinarity.
2. (Literature) Formulates ideas, concepts, and theoretical approaches beyond the current boundaries of knowledge and practice within Hispanic literary/cultural studies.
3. (Literature) Develops archival and/or bibliographic research skills or other evidence-gathering techniques with the aim of furthering historical and cultural knowledge of the specific field of inquiry.
4. (Literature) Produces scholarship that makes a substantive contribution to Hispanic literary/cultural studies.
5. (Literature) Demonstrates breadth within learning experiences.
6. (Literature) Advances contributions of the field of study to society.
7. (Literature) Communicates complex ideas in both Spanish and English in a clear and understandable manner, and demonstrates reading knowledge of two other languages pertinent to the field of inquiry.
8. (Literature) Develops speaking and writing skills necessary for articulating cogent and original arguments that enter into conversation with new and existing critical paradigms in literary and cultural studies.
9. (Literature) Develops academic professionalization through conference participation and/or scholarly exchange in preparation for a career path related to the field.
10. (Literature) Develops and demonstrates effective teaching skills (for intermediate and advanced classes).

PROBATION

Satisfactory progress depends on: maintaining a GPA of at least 3.0, adhering to the rule whereby students must take two courses within the department (or have the rule waived by petition), and fulfilling all academic requirements. Students who are not in good standing will not be given sections to teach as TAs, and those whose GPA goes below 3.0 are put on academic probation. If a semester of 3.0 is not attained during the subsequent semester, the student may be dismissed from the program.

ADVISOR / COMMITTEE

The doctoral candidates arrange their program with an assigned graduate advisor, representing one of the areas of concentration, at the beginning of their studies in this department. The advisor represents a field in which the student has expressed primary interest. The candidate may, of course, seek advice and suggestions from individual professors, but it is important to maintain frequent and ongoing contact with the regular advisor. At the beginning of the second semester in residence the academic advisor and the candidate make a detailed review of the first semester's progress.

All students must have a substantial meeting with their advisor every semester to review their progress and work out the best strategies for future coursework and degree progress.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

The Department of Spanish and Portuguese enforces the Graduate School policy that establishes a five-year deadline for completion and defense of the doctoral dissertation, unless they receive an extension. If the candidate does not complete the dissertation

11. (Literature) Fosters professionalism in extracurricular activities that develop degree-related skills as well as enhance future professional life and a sense of citizenship.

12. (Linguistics) Articulates research problems, potentials, and limits with respect to theory, knowledge, or practice within the field of Spanish Linguistics, with a view to interdisciplinarity.

13. (Linguistics) Formulates ideas, concepts, and theoretical approaches beyond the current boundaries of knowledge and practice within Spanish Linguistics.

14. (Linguistics) Develops archival and/or bibliographic research skills or other evidence-gathering techniques with the aim of furthering knowledge of the specific field of inquiry.

15. (Linguistics) Produces scholarship that makes a substantive contribution to Spanish Linguistics.

16. (Linguistics) Demonstrates breadth within learning experiences.

17. (Linguistics) Advances contributions of the field of study to society.

18. (Linguistics) Communicates complex ideas in both Spanish and English in a clear and understandable manner, and demonstrates reading knowledge of two other languages pertinent to the field of inquiry.

19. (Linguistics) Develops speaking and writing skills necessary for articulating cogent and original arguments that enter into conversation with new and existing critical paradigms in Linguistics.

20. (Linguistics) Develops academic professionalization through conference participation and/or scholarly exchange in preparation for a career path related to the field.

21. (Linguistics) Develops and demonstrates effective teaching skills (for intermediate and advanced classes).

22. (Linguistics) Fosters professionalism in extracurricular activities that develop degree-related skills as well as enhance future professional life and a sense of citizenship.

PEOPLE

Spanish Faculty: Professors Beilin (modern Spanish literature), Bilbija (modern Spanish American literature), Close (modern Spanish American/trans-Atlantic literature), Corfis (medieval Spanish literature), De Ferrari (modern Spanish American literature), Egea (modern Spanish literature), Frantzen (second language acquisition and linguistics), Hildner (Golden Age literature), Hutchinson (Golden Age literature), Medina (modern Spanish American literature), Podestá (colonial Spanish American literature); Associate Professors Alcalá-Galán (Golden Age literature), Ancos-García (medieval Spanish literature), Goldgel-Carballo (colonial Spanish American literature), Hernández (modern Spanish American literature), Pellegrini (modern Spanish American literature), Rao (Spanish linguistics), Stafford (second language acquisition and linguistics), Tejedo-Herrero (Spanish linguistics); Assistant Professors Armstrong (Spanish linguistics), Cerezo Paredes (modern Spanish literature), Comparone (modern Spanish literature)

Portuguese Faculty: Professors Albuquerque (Brazilian literature and culture), Madureira (Portuguese, Brazilian, and Luso-African literature and culture), Sapega (Portuguese and Luso-African literature and culture); and Sanchez (Portuguese and Brazilian literature and culture)

STATISTICS

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Statistics, Doctoral Minor (p. 1290)
- Statistics, M.S. (p. 1292)
- Statistics, Ph.D. (p. 1299)

PEOPLE

Faculty: Professors J. Zhu (chair), Ane, Chappell, Chien, Keles, Larget, Loh, Newton, Shao, Y. Wang, Yandell, C. Zhang, Z. Zhang; Associate Professor Rohe; Assistant Professors Garcia Trillos, Kang, Patel, Raschka, Raskutti, M. Wang, A Zhang

STATISTICS, DOCTORAL MINOR

REQUIREMENTS

GENERAL REQUIREMENTS FOR AN OPTION-A MINOR IN STATISTICS FOR GRADUATES:

Please carefully read the requirements below. Requests for further information should be addressed to the faculty member acting as minor program advisor in the Department of Statistics. **Note:** Candidates for an Option A Minor in statistics must be aware of the Graduate School "Minors" policy (<https://grad.wisc.edu/acadpolicy/#minors>).

STATISTICS MINOR OPTION FOR GRADUATES

For admission for an Option A Minor in statistics, the candidate must have had at least one year of calculus, and an introductory knowledge of statistics that is satisfactory to the department. Any of the following (or an equivalent course) is sufficient for this purpose:

Code	Title	Credits
STAT 301	Introduction to Statistical Methods	3
STAT 302	Accelerated Introduction to Statistical Methods	3
STAT 324	Introductory Applied Statistics for Engineers	3
STAT 371	Introductory Applied Statistics for the Life Sciences	3
STAT/F&W ECOL/HORT 571	Statistical Methods for Bioscience I	4

Students must take at least four courses acceptable for the minor totaling at least 12 credits. Courses acceptable for the minor are:

Code	Title	Credits
STAT/MATH 309 & STAT/MATH 310	Introduction to Probability and Mathematical Statistics I and Introduction to Probability and Mathematical Statistics II	6
STAT/MATH 310	Introduction to Probability and Mathematical Statistics II	3
STAT 311 & STAT 312	Introduction to Theory and Methods of Mathematical Statistics I and Introduction to Theory and Methods of Mathematical Statistics II	6
STAT 312	Introduction to Theory and Methods of Mathematical Statistics II	3
STAT 327	Learning a Statistical Language	1
STAT 333	Applied Regression Analysis	3
STAT 349	Introduction to Time Series	3
STAT 351	Introductory Nonparametric Statistics	3
STAT 411	An Introduction to Sample Survey Theory and Methods	3
STAT 421	Applied Categorical Data Analysis	3
STAT/M E 424	Statistical Experimental Design	3
STAT 456	Applied Multivariate Analysis	3
STAT 461	Financial Statistics	3
STAT/COMP SCI 471	Introduction to Computational Statistics	3
STAT 479	Special Topics in Statistics	1-3
STAT/B M I 542	Introduction to Clinical Trials I	3
STAT/F&W ECOL/ HORT 572	Statistical Methods for Bioscience II	4
STAT 575	Statistical Methods for Spatial Data	3
STAT 609 & STAT 610	Mathematical Statistics I and Introduction to Statistical Inference	7
STAT 610	Introduction to Statistical Inference	4
STAT/B M I 641	Statistical Methods for Clinical Trials	3
STAT 679	Special Topics in Statistics	1-3
STAT/MATH 709	Mathematical Statistics	4
STAT/MATH 710	Mathematical Statistics	4
STAT 732	Large Sample Theory of Statistical Inference	3
STAT/B M I 741	Survival Analysis Theory and Methods	3
STAT 760	Multivariate Analysis I	3
STAT 761	Decision Trees for Multivariate Analysis	3
STAT 771	Statistical Computing	3
STAT/ECON/ GEN BUS 775	Introduction to Bayesian Decision and Control I	3
STAT/MATH 803	Experimental Design I	3
STAT 809	Non Parametric Statistics	3
STAT 811	Sample Survey Theory and Method	3

STAT 834	Empirical Processes and Semiparametric Inference	1-3
STAT 840	Statistical Model Building and Learning	3
STAT 841	Nonparametric Statistics and Machine Learning Methods	3
STAT 849	Theory and Application of Regression and Analysis of Variance I	3
STAT 850	Theory and Application of Regression and Analysis of Variance II	3
STAT 860	Estimation of Functions from Data	3
STAT/B M I 877	Statistical Methods for Molecular Biology	3
STAT 992	Seminar	1-3

A student can include at most one of 309, 609, and 709, and at most one of 310, 610, and 710. The courses taken by a particular student should depend on the student's major field or individual needs.

Besides these courses, up to three credits from the following list are acceptable for the minor (or some other course in the university of suitable statistical content **if approved** by the minor program advisor in the Department of Statistics):

Code	Title	Credits
MATH/STAT 431	Introduction to the Theory of Probability	3
MATH/COMP SCI/ STAT 475	Introduction to Combinatorics	3
MATH/I SY E/OTM/ STAT 632	Introduction to Stochastic Processes	3
MATH/STAT 833	Topics in the Theory of Probability	3
COMP SCI/I SY E/ MATH/STAT 525	Linear Programming Methods	3
COMP SCI/I SY E/ MATH/STAT 726	Nonlinear Optimization I	3

The student should have a program of study **approved** by the minor program advisor in the Department of Statistics and the student's major professor, **early in the student's graduate work**. The proposed program should be submitted to and approved by the minor program advisor in statistics **upon, or before, the completion of 6 credits**.

The student must achieve a 3.00 GPA in courses used to satisfy the minor requirement.

COURSES IN STATISTICS

Code	Title	Credits
Courses in Statistics		
<i>For majors in Mathematics & Statistics:</i>		
STAT/MATH 309 & STAT/MATH 310	Introduction to Probability and Mathematical Statistics I and Introduction to Probability and Mathematical Statistics II	6
<i>For majors in Engineering, & the Natural, Agricultural and Life Sciences:</i>		

STAT 311 & STAT 312	Introduction to Theory and Methods of Mathematical Statistics I and Introduction to Theory and Methods of Mathematical Statistics II	6	STAT 849 & STAT 850	Theory and Application of Regression and Analysis of Variance I and Theory and Application of Regression and Analysis of Variance II	6
<i>For all majors:</i>					
STAT 327	Learning a Statistical Language	1	STAT 860	Estimation of Functions from Data	3
STAT 333	Applied Regression Analysis	3	STAT/B M I 877	Statistical Methods for Molecular Biology	3
STAT 349	Introduction to Time Series	3	STAT 992	Seminar	1-3
STAT 351	Introductory Nonparametric Statistics	3	Courses Jointly Listed in Statistics & Mathematics or Computer Science		
STAT 411	An Introduction to Sample Survey Theory and Methods	3	MATH/STAT 431	Introduction to the Theory of Probability	3
STAT 421	Applied Categorical Data Analysis	3	MATH/COMP SCI/ STAT 475	Introduction to Combinatorics	3
STAT/M E 424	Statistical Experimental Design	3	MATH/I SY E/OTM/ STAT 632	Introduction to Stochastic Processes	3
STAT 456	Applied Multivariate Analysis	3	STAT/MATH 733	Theory of Probability I	3
STAT 461	Financial Statistics	3	MATH/STAT 734	Theory of Probability II	3
STAT/COMP SCI 471	Introduction to Computational Statistics	3	MATH/STAT 833	Topics in the Theory of Probability	3
STAT 479	Special Topics in Statistics	1-3	COMP SCI/I SY E/ MATH/STAT 525	Linear Programming Methods	3
STAT/B M I 542	Introduction to Clinical Trials I	3	COMP SCI/I SY E/ MATH/STAT 726	Nonlinear Optimization I	3
STAT/F&W ECOL/ HORT 572	Statistical Methods for Bioscience II	4	PEOPLE		
STAT 575	Statistical Methods for Spatial Data	3	Faculty: Professors J. Zhu (chair), Ane, Chappell, Chien, Keles, Larget, Loh, Newton, Shao, Y. Wang, Yandell, C. Zhang, Z. Zhang; Associate Professor Rohe; Assistant Professors Garcia Trillos, Kang, Patel, Raschka, Raskutti, M. Wang, A Zhang		
STAT 609 & STAT 610	Mathematical Statistics I and Introduction to Statistical Inference (MS level)	7	STATISTICS, M.S.		
STAT/B M I 641	Statistical Methods for Clinical Trials	3	The M.S. degree program in statistics trains the candidate to become a practicing statistician. The M.S. degree in statistics with a named option in biostatistics trains the candidate to contribute substantially to the statistical analysis of biomedical problems.		
STAT/B M I 642	Statistical Methods for Epidemiology	3	The Department of Statistics offers a rich variety of courses and seminars in almost all branches of statistical theory and applications. The department offers the master of science (M.S.) and the doctor of philosophy in statistics (Ph.D.), and M.S. in statistics with a named option in biostatistics/ (p. 1295)Ph.D. in statistics with a named option in biostatistics (p. 1301). An M.S. in statistics with a named option in data science (p. 1297) is also available to students meeting the criteria (see the data science (http://www.stat.wisc.edu/ms-degree-data-science-option-ms-ds) page for more details). In addition, the department is closely involved with the Biometry M.S. (p. 52), and with the School of Medicine and Public Health Department of Biostatistics and Medical Informatics (p. 193), both listed separately in the Guide.		
STAT 679	Special Topics in Statistics	1-3	The statistics department provides extensive computing facilities, both hardware and software, to support instruction and research. Several computers and advanced graphic workstations are available for use in advanced courses enabling students to pursue the latest research		
STAT 701	Applied Time Series Analysis, Forecasting and Control I	3			
STAT/MATH 709 & STAT/MATH 710	Mathematical Statistics and Mathematical Statistics (Ph.D. level)	8			
STAT 732	Large Sample Theory of Statistical Inference	3			
STAT/B M I 741	Survival Analysis Theory and Methods	3			
STAT 760	Multivariate Analysis I	3			
STAT 761	Decision Trees for Multivariate Analysis	3			
STAT 771	Statistical Computing	3			
STAT/ECON/ GEN BUS 775	Introduction to Bayesian Decision and Control I	3			
STAT/MATH 803	Experimental Design I	3			
STAT 809	Non Parametric Statistics	3			
STAT 811	Sample Survey Theory and Method	3			
STAT 834	Empirical Processes and Semiparametric Inference	1-3			
STAT 840	Statistical Model Building and Learning	3			
STAT 841	Nonparametric Statistics and Machine Learning Methods	3			

directions in statistical computing and graphics. Common statistical packages and libraries are available on a variety of machines.

The department may be consulted for specific career information. A number of assistantships are available each year; see the department website (<http://www.stat.wisc.edu>) for application materials and deadlines. The master's degree programs are described below.

Additional information about the master's and Ph.D. programs, including time limits, can also be obtained from the department.

ADMISSIONS

Students holding a bachelor's degree with a natural science, social science, or engineering major and strong mathematical background are encouraged to apply for admission to the graduate program in statistics. Students are advised to undertake graduate work in statistics only if their undergraduate grades in mathematics were uniformly high. Students cannot get credit for more than one of STAT 301 Introduction to Statistical Methods, STAT 324 Introductory Applied Statistics for Engineers, or STAT 371 Introductory Applied Statistics for the Life Sciences.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Prospective students should see the program website (<http://www.stat.wisc.edu/financial-aid>) for funding information.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements A grade of B or better must be received in any course used to fulfill the required and elective course requirements.

Assessments Examinations Students must pass a competency test containing both a written and an oral component, demonstrating that they have the potential to be a practicing statistician.

Language Requirements No language requirements.

REQUIRED COURSES

Code	Title	Credits
Required Courses:		
STAT 609 or STAT/ MATH 709	Mathematical Statistics I Mathematical Statistics	3

STAT 610 or STAT/ MATH 710	Introduction to Statistical Inference Mathematical Statistics	4
STAT 849	Theory and Application of Regression and Analysis of Variance I	3
STAT 850	Theory and Application of Regression and Analysis of Variance II	3
STAT 998	Statistical Consulting	3
Select 6 or more elective credits of Statistics courses 600 or higher, except those listed above and:		6
STAT 699	Directed Study	
The following will also be allowed to count toward the 30- credit minimum for the master's degree (with permission of the Curriculum and Degree Requirement Committee)		
<i>Up to 6 credits from Statistics Courses Numbered:</i>		6
STAT 327	Learning a Statistical Language	
STAT 349	Introduction to Time Series	
STAT 351	Introductory Nonparametric Statistics	
STAT 411	An Introduction to Sample Survey Theory and Methods	
STAT 421	Applied Categorical Data Analysis	
STAT 456	Applied Multivariate Analysis	
STAT/ COMP SCI 471	Introduction to Computational Statistics	
Total Credits		28

NAMED OPTIONS (SUB-MAJORS)

A named option is a formally documented sub-major within an academic major program. Named options appear on the transcript with degree conferral.

- Statistics: Biostatistics, M.S. (p. 1295)
- Statistics: Data Science, M.S. (p. 1297)

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<http://www.stat.wisc.edu/sites/default/files/2016-17%20Complete%20PDF%20Handbook.pdf>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 9 credits of graduate coursework from other institutions toward the graduate degree credit and graduate coursework (50%) requirements. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

With program approval, up to 6 statistics credits from a UW–Madison undergraduate degree at the 600 level or above are allowed to count toward minimum graduate degree credits. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison University Special

With program approval, up to 15 statistics credits completed at UW–Madison while a University Special student at the 300 level or above are allowed to count toward minimum graduate degree and graduate residence credit requirements. Of these credits, those at the 700 level or above may also count toward the minimum graduate coursework (50%) requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

Three consecutive reviews in which a student fails to meet the minimum criteria for satisfactory progress will result in the student being dropped from the program. Contact the program for more information.

ADVISOR / COMMITTEE

Students are required to meet with their advisor near the beginning of each semester to discuss course selection and progress.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

The competency test must be passed within six semesters after entering the department.

OTHER

Students pursuing the general statistics and biostatistics options are considered for department financial support and may seek a dual degree if desired.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Demonstrates understanding of statistical theories, methodologies, and applications as tools in scientific inquiries.

2. Selects and utilizes the most appropriate statistical methodologies and practices.
3. Synthesizes information pertaining to questions in empirical studies.
4. Communicates data concepts and analysis results clearly.
5. Recognizes and applies principles of ethical and professional conduct.

PEOPLE

Faculty: Professors J. Zhu (chair), Ane, Chappell, Chien, Keles, Larget, Loh, Newton, Shao, Y. Wang, Yandell, C. Zhang, Z. Zhang; Associate Professor Rohe; Assistant Professors Garcia Trillos, Kang, Patel, Raschka, Raskutti, M. Wang, A Zhang

STATISTICS: BIostatISTICS, M.S.

This is a named option in the Statistics M.S. (p. 1292)

ADMISSIONS

Students holding a bachelor's degree with a natural science, social science, or engineering major and strong mathematical background are encouraged to apply for admission to the graduate program in statistics. Students are advised to undertake graduate work in statistics only if their undergraduate grades in mathematics were uniformly high. Students cannot get credit for more than one of STAT 301 Introduction to Statistical Methods, STAT 324 Introductory Applied Statistics for Engineers, or STAT 371 Introductory Applied Statistics for the Life Sciences.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Prospective students should see the program website (<http://www.stat.wisc.edu/financial-aid>) for funding information.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements A grade of B or better must be received in any course used to fulfill the required and elective course requirements.

Assessments and Examinations Students must pass a competency test containing both a written and an oral component, demonstrating that they have the potential to be a practicing statistician.

Language No language requirements.
Requirements

REQUIRED COURSES

Code	Title	Credits
Required Courses:		
STAT 609 or STAT/ MATH 709	Mathematical Statistics I Mathematical Statistics	3
STAT 610 or STAT/ MATH 710	Introduction to Statistical Inference Mathematical Statistics	4
STAT 849	Theory and Application of Regression and Analysis of Variance I	3
STAT 850	Theory and Application of Regression and Analysis of Variance II	3
STAT 998	Statistical Consulting	3
Select 6 or more credits of Statistics courses 600 or higher, except those listed above and:		
STAT 699	Directed Study	
Must include 6 elective credits in:		
STAT/B M I 641	Statistical Methods for Clinical Trials	3
<i>And</i>		
STAT/B M I 642 or STAT/ B M I 741	Statistical Methods for Epidemiology Survival Analysis Theory and Methods	3
or		
STAT/B M I 877	Statistical Methods for Molecular Biology	
The following will also be allowed to count toward the 30-credit minimum for the master's degree (with permission of the Curriculum and Degree Requirement Committee)		
<i>Up to 6 credits from Statistics Courses Numbered:</i>		
STAT 327	Learning a Statistical Language	
STAT 349	Introduction to Time Series	
STAT 351	Introductory Nonparametric Statistics	
STAT 411	An Introduction to Sample Survey Theory and Methods	
STAT 421	Applied Categorical Data Analysis	
STAT 456	Applied Multivariate Analysis	
STAT/ COMP SCI 471	Introduction to Computational Statistics	
Total Credits		22

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies

beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

NAMED OPTION-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<http://www.stat.wisc.edu/sites/default/files/2016-17%20Complete%20PDF%20Handbook.pdf>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 9 credits of graduate coursework from other institutions toward the graduate degree credit and graduate coursework (50%) requirements. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

With program approval, up to 6 statistics credits from a UW–Madison undergraduate degree at the 600 level or above are allowed to count toward minimum graduate degree credits. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison University Special

With program approval, up to 15 statistics credits completed at UW–Madison while a University Special student at the 300 level or above are allowed to count toward minimum graduate degree and graduate residence credit requirements. Of these credits, those at the 700 level or above may also count toward the minimum graduate coursework (50%) requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

Three consecutive reviews in which a student fails to meet the minimum criteria for satisfactory progress will result in the student being dropped from the program. Contact the program for more information.

ADVISOR / COMMITTEE

Students are required to meet with their advisor near the beginning of each semester to discuss course selection and progress.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

The competency test must be passed within six semesters after entering the department.

OTHER

Students pursuing the general statistics and biostatistics options are considered for department financial support and may seek a dual degree if desired.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PEOPLE

Faculty: Professors J. Zhu (chair), Ane, Chappell, Chien, Keles, Larget, Loh, Newton, Shao, Y. Wang, Yandell, C. Zhang, Z. Zhang; Associate Professor Rohe; Assistant Professors Garcia Trillos, Kang, Patel, Raschka, Raskutti, M. Wang, A Zhang

STATISTICS: DATA SCIENCE, M.S.

This is a named option in the Statistics M.S. (p. 1292)

ADMISSIONS

Students holding a bachelor's degree with a natural science, social science, or engineering major and strong mathematical background are encouraged to apply for admission to the graduate program in statistics. Students are advised to undertake graduate work in statistics only if their undergraduate grades in mathematics were uniformly high. Students cannot get credit for more than one of STAT 301 Introduction to Statistical Methods, STAT 324 Introductory Applied Statistics for Engineers, or STAT 371 Introductory Applied Statistics for the Life Sciences.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Prospective students should see the program website (<http://www.stat.wisc.edu/financial-aid>) for funding information.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	Yes

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum 30 credits

Credit Requirement

Minimum 16 credits

Residence Credit Requirement

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall 3.00 GPA required.

Graduate GPA Requirement

Other Grade Requirements A grade of B or better must be received in any course used to fulfill the required and elective course requirements.

Assessments and Examinations Students must pass a competency test containing both a written and an oral component, demonstrating that they have the potential to be a practicing statistician.

Language Requirements No language requirements.

REQUIRED COURSES

Code	Title	Credits
Required Courses:		
STAT 601	Statistical Methods I	4
STAT 602	Statistical Methods II	4
STAT 609	Mathematical Statistics I	3
STAT 610	Introduction to Statistical Inference	4
<i>Four to six credits from:</i>		
STAT 627	Professional Skills in Data Science	1-3
STAT 628	Data Science Practicum	1-3
<i>Or EPD professional competency courses or other courses approved by the MS-DS program</i>		
11 or more elective credits from Statistics courses, 6 of which must be numbered above 610:		
STAT 349	Introduction to Time Series	
STAT 351	Introductory Nonparametric Statistics	
STAT 411	An Introduction to Sample Survey Theory and Methods	
STAT 421	Applied Categorical Data Analysis	
STAT 456	Applied Multivariate Analysis	
STAT 461	Financial Statistics	
STAT/COMP SCI 471	Introduction to Computational Statistics	
STAT 479	Special Topics in Statistics	
STAT 575	Statistical Methods for Spatial Data	
Other courses numbered above 610		
Total Credits		17-21

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

NAMED OPTION-SPECIFIC POLICIES GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<http://www.stat.wisc.edu/sites/default/files/2016-17%20Complete%20PDF%20Handbook.pdf>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 9 credits of graduate coursework from other institutions toward the graduate degree credit and graduate coursework (50%) requirements. Coursework earned five or more years

prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

With program approval, up to 6 statistics credits from a UW–Madison undergraduate degree at the 600 level or above are allowed to count toward minimum graduate degree credits. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW–Madison University Special

With program approval, up to 15 statistics credits completed at UW–Madison while a University Special student at the 300 level or above are allowed to count toward minimum graduate degree and graduate residence credit requirements. Of these credits, those at the 700 level or above may also count toward the minimum graduate coursework (50%) requirement. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

Three consecutive reviews in which a student fails to meet the minimum criteria for satisfactory progress will result in the student being dropped from the program. Contact the program for more information.

ADVISOR / COMMITTEE

Students are required to meet with their advisor near the beginning of each semester to discuss course selection and progress.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

The competency test must be passed within six semesters after entering the department.

OTHER

The M.S.–Data Science option is unique and does not allow students to accept assistantships, or to be concurrently enrolled in another university program or enrolled in courses outside of the MS–DS curriculum—see here (<http://www.stat.wisc.edu/ms-degree-data-science-option-ms-ds>) for more details.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PEOPLE

Faculty: Professors J. Zhu (chair), Ane, Chappell, Chien, Keles, Larget, Loh, Newton, Shao, Y. Wang, Yandell, C. Zhang, Z. Zhang; Associate Professor Rohe; Assistant Professors Garcia Trillos, Kang, Patel, Raschka, Raskutti, M. Wang, A Zhang

STATISTICS, PH.D.

The Department of Statistics offers a rich variety of courses and seminars in almost all branches of statistical theory and applications. The department offers the master of science (M.S.) and the doctor of philosophy in statistics (Ph.D), and M.S. and Ph.D. degrees in statistics with a named option in biostatistics. An M.S. in statistics with a named option in data science is also available to students meeting the criteria (see the data science (p. 1297) page for more details). In addition, the department is closely involved with the biometry program, and with the School of Medicine and Public Health's Department of Biostatistics and Medical Informatics, both listed separately in this catalog.

The statistics department provides extensive computing facilities, both hardware and software, to support instruction and research. Several computers and advanced graphic workstations are available for use in advanced courses enabling students to pursue the latest research directions in statistical computing and graphics. Common statistical packages and libraries are available on a variety of machines.

The department may be consulted for specific career information. A number of assistantships are available each year; see the department website (<http://www.stat.wisc.edu>) for application materials and deadlines. The master's degree programs are described below.

Additional information about the master's and Ph.D. programs, including time limits, can also be obtained from the department.

ADMISSIONS

Students holding a bachelor's degree with a natural science, social science, or engineering major and strong mathematical background are encouraged to apply for admission to the graduate program in statistics. Students are advised to undertake graduate work in statistics only if their undergraduate grades in mathematics were uniformly high. Students cannot get credit for more than one of STAT 301 Introduction to Statistical Methods, STAT 324 Introductory Applied Statistics for Engineers, or STAT 371 Introductory Applied Statistics for the Life Sciences.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Prospective students should see the program website (<http://www.stat.wisc.edu/financial-aid>) for funding information.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 51 credits

Minimum Residence Credit Requirement 32 credits

Minimum Graduate Coursework Requirement Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade A grade of B or better must be received in any course used Requirements to fulfill the required and elective course requirements.

Assessments Students must pass the Ph.D. qualifying examination, an and oral preliminary examination on a topic selected with the Examinations approval of the student's advisor, and a thesis defense.

Language No language requirements.
Requirements

Doctoral Statistics doctoral students are not required to complete Minor/ a minor by the Graduate School. The program does Breadth require students to meet the breadth requirement in Requirements one of three ways: Students must complete either an Option A or Option B minor (at least 9 credits), or they may instead opt to complete a Breadth Option (called "Option C" in the statistics department) consisting of at least two of the following three: participatory seminar experience, collaborative research experience, and/or a breadth course. See the program website (http://www.stat.wisc.edu/phd-masters/PhD_Degree_Regulations) for more details.

REQUIRED COURSES

Code	Title	Credits
Required Courses:		
STAT/MATH 709	Mathematical Statistics	4
STAT/MATH 710	Mathematical Statistics	4
STAT/MATH 733 or STAT 771	Theory of Probability I Statistical Computing	3
STAT 849	Theory and Application of Regression and Analysis of Variance I	3
STAT 850	Theory and Application of Regression and Analysis of Variance II	3
STAT 998	Statistical Consulting	3
Elective Courses:		
<i>Eighteen or more elective credits from Statistics Courses, including:</i>		<i>1-18</i>
STAT/B M I 641	Statistical Methods for Clinical Trials	3
STAT/B M I 642	Statistical Methods for Epidemiology	3
or 700 or higher ¹		
Sufficient credits of STAT 990 to reach the 51-credit minimum		
Total Credits		27-44

¹ Courses that do not count in this requirement: STAT 609, STAT 610, STAT 699, STAT/MATH 709, STAT/MATH 710, STAT 849, STAT 850, STAT 990, or STAT 998

NAMED OPTIONS (SUB-MAJORS)

A named option is a formally documented sub-major within an academic major program. Named options appear on the transcript with degree conferral.

- Statistics: Biostatistics, Ph.D. (p. 1301)

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<http://www.stat.wisc.edu/sites/default/files/2016-17%20Complete%20PDF%20Handbook.pdf>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 9 credits of graduate coursework from other institutions toward the graduate degree credit and graduate coursework (50%) requirements. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

With program approval, up to 6 statistics credits from a UW–Madison undergraduate degree at the 600 level or above are allowed to count toward minimum graduate degree credits. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison University Special

With program approval, up to 15 statistics credits completed at UW–Madison while a University Special student at the 300 level or above are allowed to count toward minimum graduate degree and graduate residence credit requirements. Of these credits, those at the 700 level or above may also count toward the minimum graduate coursework (50%) requirement. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

PROBATION

Three consecutive reviews in which a student fails to meet the minimum criteria for satisfactory progress will result in the student being dropped from the program. Contact the program for more information.

ADVISOR / COMMITTEE

Students are required to meet with their advisor near the beginning of each semester to discuss course selection and progress.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Students must pass the Ph.D. qualifying examination within six semesters from the first fall semester of registration as a graduate student in the department. Students who complete a master's in

the department and then are admitted to the Ph.D. program must pass the Ph.D. qualifying examination within four semesters after entering the Ph.D. program.

OTHER

Students pursuing the general statistics and biostatistics options are considered for department financial support and may seek a dual degree if desired.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Articulates research problems, potentials, and limits with respect to the theories, methodologies, and/or applications of statistics.
2. Formulates ideas, concepts, designs, and methods beyond the current boundaries of knowledge within statistics.
3. Creates research that makes a substantive contribution to theoretical and/or applied statistics.
4. Demonstrates breadth in the theories, methodologies, and applications of statistics.
5. Advances contributions of statistics to society.
6. Communicates complex ideas in a clear and understandable manner.
7. Fosters ethical and professional conduct.

PEOPLE

Faculty: Professors J. Zhu (chair), Ane, Chappell, Chien, Keles, Larget, Loh, Newton, Shao, Y. Wang, Yandell, C. Zhang, Z. Zhang; Associate Professor Rohe; Assistant Professors Garcia Trillos, Kang, Patel, Raschka, Raskutti, M. Wang, A Zhang

STATISTICS: BIostatistics, Ph.D.

This is a named option in the Statistics Ph.D. (p. 1299)

ADMISSIONS

Students holding a bachelor's degree with a natural science, social science, or engineering major and strong mathematical background are encouraged to apply for admission to the graduate program in statistics. Students are advised to undertake graduate work in statistics only if their undergraduate grades in mathematics were uniformly high. Students cannot get credit for more than one of STAT 301 Introduction to Statistical Methods, STAT 324 Introductory Applied Statistics for Engineers, or STAT 371 Introductory Applied Statistics for the Life Sciences.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Prospective students should see the program website (<http://www.stat.wisc.edu/financial-aid>) for funding information.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum 51 credits

Credit Requirement

Minimum 32 credits

Residence Credit Requirement

Minimum Graduate Coursework Requirement Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle>).

Overall 3.00 GPA required.

Graduate GPA Requirement

Other Grade Requirements A grade of B or better must be received in any course used to fulfill the required and elective course requirements.

Assessments and Examinations Students must pass the Ph.D. qualifying examination, an oral preliminary examination on a topic selected with the approval of the student's advisor, and a thesis defense.

Language Requirements No language requirements.

Doctoral Minor/Breadth Requirements Statistics doctoral students are not required to complete a minor by the Graduate School. The program does require students to meet the breadth requirement in one of three ways: Students must complete either an Option A or Option B minor (at least 9 credits), or they may instead opt to complete a Breadth Option (called "Option C" in the statistics department) consisting of at least two of the following three: participatory seminar experience, collaborative research experience, and/or a breadth course. See the program website (http://www.stat.wisc.edu/phd-masters/PhD_Degree_Regulations) for more details.

REQUIRED COURSES

Code	Title	Credits
Required Courses:		
STAT/MATH 709	Mathematical Statistics	4
STAT/MATH 710	Mathematical Statistics	4
STAT/MATH 733	Theory of Probability I	3
STAT 998	Statistical Consulting	3
STAT 849	Theory and Application of Regression and Analysis of Variance I	3
STAT 850	Theory and Application of Regression and Analysis of Variance II	3
STAT/B M I 641	Statistical Methods for Clinical Trials	3

Additionally four elective courses (12 credits) numbered 642 or higher must be taken, EXCLUDING above and:

STAT 609	Mathematical Statistics I
STAT 610	Introduction to Statistical Inference
STAT 699	Directed Study
STAT 990	Research

If STAT 992 is used to fulfill the elective requirement, only 3 credits from any one topic is allowed

The chosen electives must contain AT LEAST two of three Biostatistics specialized courses:

STAT/B M I 642	Statistical Methods for Epidemiology
STAT/B M I 741	Survival Analysis Theory and Methods
STAT/B M I 877	Statistical Methods for Molecular Biology

A twelfth course is required (3 credits) from an approved list of Biological Sciences courses.

Total Credits

23

POLICIES**GRADUATE SCHOOL POLICIES**

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

**NAMED OPTION-SPECIFIC POLICIES
GRADUATE PROGRAM HANDBOOK**

The Graduate Program Handbook (<http://www.stat.wisc.edu/sites/default/files/2016-17%20Complete%20PDF%20Handbook.pdf>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK**Graduate Work from Other Institutions**

With program approval, students are allowed to count no more than 9 credits of graduate coursework from other institutions toward the graduate degree credit and graduate coursework (50%) requirements. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

With program approval, up to 6 statistics credits from a UW–Madison undergraduate degree at the 600 level or above are allowed to count toward minimum graduate degree credits. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison University Special

With program approval, up to 15 statistics credits completed at UW–Madison while a University Special student at the 300 level or above are allowed to count toward minimum graduate degree and graduate residence credit requirements. Of these credits, those at the 700 level or above may also count toward the minimum graduate coursework (50%) requirement. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

PROBATION

Three consecutive reviews in which a student fails to meet the minimum criteria for satisfactory progress will result in the student being dropped from the program. Contact the program for more information.

ADVISOR / COMMITTEE

Students are required to meet with their advisor near the beginning of each semester to discuss course selection and progress.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Students must pass the Ph.D. qualifying examination within six semesters from the first fall semester of registration as a graduate student in the department. Students who complete a master's in the department and then are admitted to the Ph.D. program must pass the Ph.D. qualifying examination within four semesters after entering the Ph.D. program.

OTHER

Students pursuing the general statistics and biostatistics options are considered for department financial support and may seek a dual degree if desired.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

PEOPLE

Faculty: Professors J. Zhu (chair), Ane, Chappell, Chien, Keles, Larget, Loh, Newton, Shao, Y. Wang, Yandell, C. Zhang, Z. Zhang; Associate Professor Rohe; Assistant Professors Garcia Trillos, Kang, Patel, Raschka, Raskutti, M. Wang, A Zhang

THEATRE AND DRAMA

DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES

- Theatre and Drama, MFA (p. 1303)

PEOPLE

Faculty: Professors John Hitchcock (chair), Ann Archbold, Patricia Boyette, David Furumoto, Patrick Sims; Associate Professors Gail Brassard, Assistant Professors Shuxing Fan, Dan Lisowski

THEATRE AND DRAMA, MFA

Admissions to the Theatre and Drama MFA have been suspended as of fall 2017. If you have any questions, please contact the department (gradsec@theatre.wisc.edu).

The department offers the MFA advanced degree. The master of fine arts degree in Theatre and Drama offers specializations in Acting, Costume Design, Lighting Design, Scene design, and Theatre Technology. Currently the MFA program admission is on hiatus but we will be accepting applications for the fall 2021 semester.

The faculty in Theatre and Drama are leaders in their field. Together, they have many credits in all facets of the profession, working within their field of theatre research and practice both nationally and abroad. They are recognized for their critically acclaimed publications and production work and have won major awards and fellowships for scholarship, creative work, and teaching.

Graduate students at UW–Madison come from around the country and the world. Many have been working theatre professionals returning for advanced degrees. Some graduates go on to teach in the academy; others work in the profession as actors, directors, designers, and technologists.

Coursework and specializations are organized around two areas: acting and design and technology. Students in all specializations are encouraged to complement their major area of study by taking courses from other areas in the department.

University Theatre, the producing arm of the Department of Theatre and Drama, provides students with opportunities to complement work begun in the studios and classrooms. At UW–Madison, the stage is our laboratory. Coursework and discussions regularly connect theatre practice and study with larger issues of cultural and intercultural representation.

The MFA offers specialized preparation for careers in professional theatre.

The MFA specialization in scene design, costume design, lighting design, or theatre technology strives for a balance of professional training and the practical application of skills through numerous collaborative experiences, both onstage and in the classroom. Students in all four disciplines are encouraged to be creative problem solvers through both an appreciation of the history of their craft and a curiosity about the contemporary world of theatre, design and the application of new technologies. Numerous opportunities for realized work, studio collaborations and individualized mentoring affords the MFA student the opportunity to grow and develop as an articulate and collaborative theatre artist.

ADMISSIONS

Admissions to the Theatre and Drama MFA have been suspended as of fall 2017. If you have any questions, please contact the department (gradsec@theatre.wisc.edu).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Funding opportunities for graduate work vary, but tend to be highly competitive. Please contact the department for more information on student financial support.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 75 credits

Minimum Residence Credit Requirement	33 credits
Minimum Graduate Coursework Requirement	Half of degree coursework must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (https://registrar.wisc.edu/course-guide/).
Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	No other specific grade requirements.
Assessments and Examinations	Design and Technology students must pass two candidacy portfolio examinations in the first year of residency. They must pass two comprehensive-progress, portfolio examinations in both the second and third years of residency. A research or creative thesis is required for Design and Technology candidates.
Language Requirements	No language requirements.

REQUIRED COURSES

Code	Title	Credits
Core Program Coursework		
Theatre History/Literature/Criticism courses		6
Production courses		12
THEATRE 367	Script Analysis ¹	6
or THEATRE 501	The Business of Acting	
or THEATRE 619	Special Topics in Theatre and Drama	
THEATRE 699	Directed Study	6
THEATRE 368	Fundamentals of Directing	3
Total Credits		33

¹ Students take 6 credits of either Script Analysis, The Business of Acting, or THEATRE 619 with the topic: The Business of The Business, depending on their specialist area.

Specialist Coursework

Acting ¹

Code	Title	Credits
Acting courses		12
Movement courses		12
Voice courses		12
Electives		6
Total Credits		42

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Costume Design¹

Code	Title	Credits
Design courses		9
Drafting courses		3
THEATRE 619	Special Topics in Theatre and Drama (Topic: Period Dress and Décor)	6
THEATRE 970	Collaborative Design & Technology Studio	6
Skills (Crafts) courses		6
Electives		12
Total Credits		42

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Lighting Design¹

Code	Title	Credits
Design courses		9
Drafting course		3
THEATRE 619	Special Topics in Theatre and Drama (Topic: Period Dress and Décor)	6
THEATRE 970	Collaborative Design & Technology Studio	6
Skills courses		6
Electives		12
Total Credits		42

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Scenic Design¹

Code	Title	Credits
Design courses		9
Drafting course		3
THEATRE 619	Special Topics in Theatre and Drama (Topic: Period Dress and Décor)	6
THEATRE 970	Collaborative Design & Technology Studio	6
Skills courses		9
Electives		9
Total Credits		42

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

Theatre Technology¹

Code	Title	Credits
Technical Design courses		12

Drafting course		3
Technical Management courses		9
THEATRE 970	Collaborative Design & Technology Studio	3
Electives		15
Total Credits		42

¹ These tracks are internal to the program and represent different pathways a student can follow to earn this degree. Track names do not appear in the Graduate School admissions application, and they will not appear on the transcript.

POLICIES**GRADUATE SCHOOL POLICIES**

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

**MAJOR-SPECIFIC POLICIES
GRADUATE PROGRAM HANDBOOK**

The Graduate Program Handbook (<https://theatre.wisc.edu/2012uwtheatre/wp-content/uploads/2016-2017-MFA-Program-Handbook.pdf>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK**Graduate Work from Other Institutions**

With program approval, students may count no more than 18 credits of graduate coursework from other institutions.

UW-Madison Undergraduate

With program approval, students may count up to 7 credits numbered 300 or above.

UW-Madison University Special

With program approval, students may count up to 15 credits numbered 700 or above.

PROBATION

Each of the MFA Specializations in Costume Design, Lighting Design, Scene Design, and Theatre Technology conducts separate reviews of students each semester by portfolio and/or oral examination. Students may be placed on probation if program faculty determines that they are not meeting the expectations of their specific degree requirements.

ADVISOR / COMMITTEE

A thesis or final creative project must be prepared under the direction and guidance of a major professor.

Committee consists of four members—advisor and three other committee members.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

The MFA Specializations in Costume Design, Lighting Design, Scene Design, and Theatre Technology generally follow a three-year timeline and variations from this must be approved by the degree program head.

OTHER

Qualified candidates are considered for 33% TA positions as the budget allows.

PROFESSIONAL DEVELOPMENT**GRADUATE SCHOOL RESOURCES**

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Exhibit exceptional skill and professional competence in theatre practice exemplified by a knowledge and achievement signified by a large body of work.
2. Applies advanced analytical levels of inquiry and investigation in the creation, performance, production, or communication of theatre practice.
3. Possesses a broad knowledge of theatre literature as well as visual and cultural history and applies that knowledge to the production process.
4. Demonstrates the requisite artistic and technical skills to meet professional standards.
5. Formulates ideas, concepts, designs, performances and/or techniques that advance the field.
6. Articulates complex ideas in a clear and understandable manner.
7. Recognizes and applies principles of ethical and professional conduct.
8. Collaborates effectively, creatively, and generously through respect for the contributions of others.

PEOPLE

Faculty: Professors John Hitchcock (chair), Ann Archbold, Patricia Boyette, David Furumoto, Patrick Sims; Associate Professors Gail Brassard, Assistant Professors Shuxing Fan, Dan Lisowski

VETERINARY MEDICINE—SCHOOL-WIDE**DEGREES/MAJORS, DOCTORAL MINORS, GRADUATE/PROFESSIONAL CERTIFICATES**

- Comparative Biomedical Sciences, M.S. (p. 1306)
- Comparative Biomedical Sciences, Ph.D. (p. 1310)

PEOPLE

Faculty: See Comparative Biomedical Sciences (<http://www.vetmed.wisc.edu/ms-phd/current-students/faculty-trainers>) faculty list.

COMPARATIVE BIOMEDICAL SCIENCES, M.S.

The Comparative Biomedical Sciences (CBMS) graduate program emphasizes an integrated approach to contemporary biology that combines molecular and cellular techniques with the analysis of complex whole animal systems. Faculty provide exceptional graduate and undergraduate interdisciplinary research training opportunities in core areas of animal and human health including immunology, molecular and cellular biology, physiology, neuroscience, genomics, oncology, virology, medical technology, infectious diseases and toxicology and pharmacology. They also contribute extensive public services, both nationally and internationally, within related faculty disciplines.

The graduate program serves as a focal point for graduate research training in the School of Veterinary Medicine (SVM) and is administered by the Department of Pathobiological Sciences. Trainers in CBMS have their tenure homes in all four departments of the School of Veterinary Medicine as well as in the College of Agricultural and Life Sciences (CALS), the School of Medicine and Public Health (SMPH), the College of Engineering, and the College of Letters & Science. Faculty in the CBMS program also serve in or interface with other campus training programs including bacteriology, biocore, cellular and molecular biology, endocrinology and reproductive physiology, medical microbiology and immunology, molecular and environmental toxicology, and the Primate Center.

Currently, there are approximately 95 faculty trainers in the comparative biomedical sciences program. Affiliate faculty outside the School of Veterinary Medicine have their tenure homes in the Departments of Anatomy, Animal Sciences, Biochemistry, Dermatology, Entomology, Human Oncology, Medical Microbiology and Immunology, Medicine, Neurosurgery, Ophthalmology and Visual Sciences, Pathology and Laboratory Medicine, Population Health Sciences, Radiology, and Surgery. The program is currently comprised of approximately 50 graduate students, most of whom are pursuing the Ph.D. degree. The program is recognized as a premier research and graduate training program for students with or without a degree in veterinary medicine.

ADMISSIONS

Admission is competitive. Applicants must hold a B.S., DVM., M.S., M.A. or M.D. from an approved institution and have a strong background in biology and chemistry. Applications are judged on the basis of previous academic record, graduate record exam (GRE) scores, letters of recommendation, and the personal statement. Before admission, most students must be accepted by an eligible program faculty member who agrees to serve as the major professor. A limited number of students may be offered rotations. Applications for summer (June) or fall (September) admission must be received by **January 1**, and spring (January) applications must be received by **June 1**. Historically, most students start in the fall semester.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Most graduate students receive financial support through fellowships, research assistantships through their major professor, and/or National Research Service Awards. Faculty in the program are PIs for Training Grants (Parasitology and Vector Biology Training Program, Comparative Biomedical Sciences Research Training for Veterinarians, and Research Training for Veterinary Medical Students) for which students with the appropriate background and credentials may compete.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide/>).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements Students must earn a B or above in all major coursework.

Assessments and Examinations After the committee is chosen, the student must submit certification paperwork that details the intended coursework plan, the committee members' names and signatures, a short explanation of why they were chosen and an appended research plan. Certification plans will be reviewed and approved by the program academic committee.

Students are expected to meet with their committee at least once per year until degree completion.

Candidates are required to author a thesis based on original work, or, at the option of the major professor and with the approval of the thesis committee, the equivalent in the form of a substantial paper suitable for publication. The thesis or paper must be approved by the student's committee at least two weeks prior to the final examination. A final public presentation, followed by an oral exam in front of their committee and official deposit of the thesis with the Graduate School is not required.

Language Requirements No language requirements.

REQUIRED COURSES

- 9 didactic credits (6 credits of advanced coursework may be transferred as approved by your thesis committee and the academic committee provided they are defined as graduate level). Credits from undergraduate courses taken at UW-Madison may be transferred if at the graduate level.
- 1 credit of PATH-BIO 930 Advanced Seminar (research seminar)
- For students who enter fall 2016 or later. Masters students must register for two semesters of PATH-BIO 930 Advanced Seminar and present once during their second semester. MS students will take the course P/S/U (Progress/Satisfactory/Unsatisfactory) if not presenting.
- 19 (minimum) research 990 credits
- Thesis or publishable work approved by your major professor and committee (official deposit is not required) of work based on original research and defended before your committee.
- Certification submitted and approved by your thesis committee and the academic committee.

Approved and Recommended Courses

The following is a list of core courses taken by many students and recommended courses that are appropriate to specific research areas. These courses are suggestions only; the student and their committee ultimately decide the best coursework plan for each student's specific program, with final approval from the program's academic committee. Students are responsible for determining that the coursework chosen meets the Graduate School's criteria for graduate work.

Code	Title	Credits
Recommended Course		
SURG SCI 812	Research Ethics and Career Development	2
Any other science-based ethics course		
Core Courses		
These courses are chosen by many students to fulfill their major coursework plan		
GENETICS 466	Principles of Genetics	3
PATH-BIO/HORT 500	Molecular Biology Techniques	3
PATH-BIO/M M & I 773	Eukaryotic Microbial Pathogenesis	3
BIOCHEM 501	Introduction to Biochemistry	3
BIOCHEM/GENETICS/MICROBIO 612	Prokaryotic Molecular Biology	3
BIOCHEM/GENETICS/MD GENET 620	Eukaryotic Molecular Biology	3
BIOCHEM/PHMCOL-M/ZOOLOGY 630	Cellular Signal Transduction Mechanisms	3
ZOOLOGY 570	Cell Biology	3
PATH 750	Cellular and Molecular Biology/Pathology	2-3
PATH 751	Cell and Molecular Biology of Aging	3

STAT/F&W ECOL/HORT 571 & STAT/F&W ECOL/HORT 572	Statistical Methods for Bioscience I and Statistical Methods for Bioscience II	8
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Courses from which Students Build Disciplinary Strength

Epidemiology		
PATH-BIO 512	Introduction to Veterinary Epidemiology	2
POP HLTH/SOC 797	Introduction to Epidemiology	3
POP HLTH 802	Advanced Epidemiology: Etiology and Prevention	3
Physiology		
AN SCI/DY SCI 434	Reproductive Physiology	3
COMP BIO 551	Veterinary Physiology A (fall)	4
COMP BIO 506	Veterinary Physiology B (spring)	4
ZOOLOGY 611	Comparative and Evolutionary Physiology	3
ZOOLOGY/AN SCI/OBS&GYN 954	Seminar in Endocrinology-Reproductive Physiology	1
Infectious Disease and Immunology		
PATH-BIO 510	Veterinary Immunology	3
PATH-BIO 514	Veterinary Parasitology	3
PATH-BIO 517	Veterinary Bacteriology and Mycology	4
PATH-BIO 513	Veterinary Virology	2
PATH-BIO/M M & I/MICROBIO 528	Immunology	3
PATH-BIO/M M & I 750	Host-Parasite Relationships in Vertebrate Viral Disease	3
M M & I 701	Infection and Immunity I	4
PATH-BIO/M M & I 773	Eukaryotic Microbial Pathogenesis	3
M M & I/PATH-BIO 720	Advanced Immunology: Critical Thinking	3
M M & I/MICROBIO/PATH-BIO 790	Immunology of Infectious Disease	3
Neuroscience		
COMP BIO 505	Veterinary Neuroanatomy and Neurophysiology	3
ZOOLOGY/PSYCH 523	Neurobiology	3
NTP/NEURODPT 610	Cellular and Molecular Neuroscience	4
NTP/NEURODPT/PSYCH 611	Systems Neuroscience	4
Toxicology and Pharmacology		
COMP BIO 555	Veterinary Toxicology	2
M&ENVTOX/MEDICINE/ONCOLOGY/PHM SCI/PHMCOL-M/POP HLTH 625	Toxicology I	3
M&ENVTOX/MEDICINE/PHM SCI/PHMCOL-M/POP HLTH 626	Toxicology II	3

<i>Oncology</i>		
ONCOLOGY 675	Advanced or Special Topics in Cancer Research	1-3
ONCOLOGY 703	Carcinogenesis and Tumor Cell Biology	3
<i>Virology</i>		
PATH-BIO 513	Veterinary Virology	2
BIOCHEM/ M M & I 575	Biology of Viruses	2
ONCOLOGY/ MICROBIO/ PL PATH 640	General Virology-Multiplication of Viruses	3
M M & I/PATH- BIO 750	Host-Parasite Relationships in Vertebrate Viral Disease	3

to admission to a master's degree is not allowed to satisfy requirements.

PROBATION

A semester GPA below 3.0 will result in the student being placed on academic probation. If a semester GPA of 3.0 is not attained during the subsequent semester of full or part-time enrollment the student may be dismissed from the program or allowed to continue based on advisor appeal to the Graduate School.

ADVISOR / COMMITTEE

All students must have an advisor prior to final admission. A thesis committee consisting of three members, the advisor plus one program trainer and one outside member, must be chosen by the end of the first semester. The third member may be a scientist, industry expert, or a member of the faculty from another institution.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Certification should be completed by the end of the first semester of enrollment.

Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements, but that coursework may not count toward Graduate School credit requirements.

OTHER

Most students must be accepted by a major professor in the CBMS Graduate Program before they can be fully admitted to the program. Rotations are offered to a limited number of entering students (1-2) in the fall semester.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Articulates, critiques, or elaborates the theories, research methods, and approaches to inquiry and/or schools of practice in the field of study.
2. Articulates sources and assembles evidence pertaining to questions or challenges in the field of study.
3. Assesses and/or applies methodologies and practices in the field of study.
4. Articulates challenges involved in practicing the field of study, elucidates its leading edges, and delineates its current limits with respect to theory, knowledge, and/or practice.

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://www.vetmed.wisc.edu/ms-phd/current-students/documents-and-forms>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students may transfer no more than 6 credits of advanced graduate coursework from other institutions. These courses may not be used toward the Graduate School's Minimum Graduate Residence Credit. Coursework earned five or more years prior to admission to a master's degree is not allowed to satisfy requirements.

UW-Madison Undergraduate

With program approval, students may count up to 6 credits of advanced undergraduate coursework from UW-Madison in lieu of or in combination with credits transferred from another institution. These courses must meet the Graduate School's criteria as graduate coursework and may not be used toward the 50% graduate coursework requirement unless taken at the 700 level or above.

UW-Madison University Special

With program approval, students may count up to 6 credits of coursework numbered 400 or above taken as a UW-Madison Special student in lieu of or in combination with credits transferred from another institution or as a UW-Madison undergraduate. Coursework taken as a University Special student would not be allowed to count toward the 50% graduate coursework minimum unless taken at the 700 level or above. Coursework earned five or more years prior

5. Appreciates the implication of the primary field of study in terms of challenges, trends, and developments in a broader scientific context.
6. Demonstrates abilities to apply knowledge through critical thinking, inquiry, and analysis to solve problems, engage in scholarly work, and/or produce creative products.
7. Evaluates, assesses or refines information resources or an information base within the field.
8. Communicates clearly in styles appropriate to the field of study.
9. Recognizes and applies ethical conduct and professional guidelines.

PEOPLE

Faculty: See Comparative Biomedical Sciences (<http://www.vetmed.wisc.edu/ms-phd/current-students/faculty-trainers>) faculty list.

COMPARATIVE BIOMEDICAL SCIENCES, PH.D.

The Comparative Biomedical Sciences (CBMS) graduate program emphasizes an integrated approach to contemporary biology that combines molecular and cellular techniques with the analysis of complex whole animal systems. Faculty provide exceptional graduate and undergraduate interdisciplinary research training opportunities in core areas of animal and human health including immunology, molecular and cellular biology, physiology, neuroscience, genomics, oncology, virology, medical technology, infectious diseases and toxicology and pharmacology. They also contribute extensive public services, both nationally and internationally, within related faculty disciplines.

The graduate program serves as a focal point for graduate research training in the School of Veterinary Medicine (SVM) and is administered by the Department of Pathobiological Sciences. Trainers in CBMS have their tenure homes in all four departments of the School of Veterinary Medicine as well as in the College of Agricultural and Life Sciences (CALS), the School of Medicine and Public Health (SMPH), the College of Engineering, and the College of Letters & Science. Faculty in the CBMS program also serve in or interface with other campus training programs including bacteriology, biocore, cellular and molecular biology, endocrinology and reproductive physiology, medical microbiology and immunology, molecular and environmental toxicology, and the Primate Center.

Currently, there are over 95 faculty trainers in the Comparative Biomedical Sciences program. Affiliate faculty outside the School of Veterinary Medicine have their tenure homes in the Departments of Anatomy, Animal Sciences, Biochemistry, Dermatology, Entomology, Human Oncology, Medical Microbiology and Immunology, Medicine, Neurosurgery, Ophthalmology and Visual Sciences, Pathology and Laboratory Medicine, Population Health Sciences, Radiology, and Surgery. The program is currently comprised of approximately 50 graduate students, most of whom are pursuing the Ph.D. degree. The program is recognized as a premier research and graduate training program for students with or without a degree in veterinary medicine.

ADMISSIONS

Admission is competitive. Applicants must hold a B.S., DVM., M.S., M.A. or M.D. from an approved institution and have a strong background in biology and chemistry. Applications are judged on the basis of previous academic record, graduate record exam (GRE) scores, letters of recommendation, and the personal statement. Before admission, most students must be accepted by an eligible program faculty member who agrees to serve as the major professor. A limited number of students may be offered rotations. Applications for summer (June) or fall (September) admission must be received by **January 1** and spring (January) applications must be received by **June 1**. Historically, most students start in the fall semester.

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/admissions>).

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (<https://grad.wisc.edu/funding>) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Most graduate students receive financial support through fellowships, research assistantships through their major professor, and/or National Research Service Awards. Faculty in the program are PIs for Training Grants (Parasitology and Vector Biology Training Program, Comparative Biomedical Sciences Research Training for Veterinarians, and Research Training for Veterinary Medical Students) for which students with the appropriate background and credentials may compete.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (p. 15), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Evening/Weekend: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

Online: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

Hybrid: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

Accelerated: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement 51 credits

Minimum Residence Credit Requirement 32 credits

Minimum Graduate Coursework Requirement Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide.

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements Students must earn a B or above in all major coursework.

Assessments and Examinations After the committee is chosen, the student must submit certification paperwork that details the intended coursework plan, the committee members' names and signatures, a short explanation of why they were chosen and an appended research plan. Certification plans will be reviewed and approved by the program academic committee.

Students are expected to meet with their committee at least once per year until degree completion.

There are two preliminary examinations. The first (A) consists of a take-home exam of questions authored by the student's dissertation committee, followed by an oral exam. The student may retake the exam once if they fail on the first attempt.

The second preliminary examination (B) requires that the student write their research plan in the form of a major grant application and defend it orally before the committee.

Candidates must present broad-based evidence of general proficiency in research and the ability to conduct independent investigation as demonstrated in a written dissertation presenting original research. A final public presentation, followed by an oral exam in front of their committee and official deposit of the dissertation with the Graduate School is required.

Language Requirements No language requirements.

Doctoral Minor/Breadth Requirements A minor is no longer required but may be completed by students who wish to receive one. The decision to fulfill a minor should be requested at the time of certification. In general, most minors require a minimum of 10 didactic credits in a single degree program (e.g., neuroscience, population health, genetics). Focused minors usually require approval from the related program or department and may involve additional rules or credits. Check with the program in which you have an interest early in the process.

REQUIRED COURSES

Choose your coursework in consultation with your major professor. The Graduate School requires a minimum of **32** total credits prior to taking the CBMS prelim B and **51** credits to graduate (any combination of didactic or lab courses, seminars and research).

- 20 didactic credits. Nine credits of advanced coursework, or MS/DVM coursework or equivalent, may be transferred as approved by your thesis committee and the Academic Committee, provided they are defined as graduate level. Nine credits may be transferred from coursework taken as a Special Student at UW-Madison if the student pays the difference in tuition for the terms in question and the course is numbered 700 and above. A maximum of 7 undergraduate credits may be transferred only from UW-Madison. In all cases, these credits will not count toward the 50% minimum unless courses are graduate level (700 level and above).
- 2 PATH-BIO 930 Advanced Seminar one-credit student seminar courses.
- For students who enter fall 2016 or later: PhD students must register for four semesters of PATH-BIO 930 Advanced Seminar and

present twice after the first two semesters. One presentation must be completed prior to passing to dissertator status. The second presentation may take place after reaching dissertator status, but no later than the semester prior to the student's dissertation defense. PhD students will take the course P/S/U (Progress/Satisfactory/Unsatisfactory) unless they are presenting.

- 28 Research 990 credits (minimum, unless you take more didactic or laboratory courses)
- Certification submitted and approved by thesis committee and Academic Committee
- Pass preliminary examinations A and B
- Completed dissertation composed of original work approved by your major professor and committee based on original research, defended before your committee and deposited with the Graduate School.

Approved and Recommended Courses

The following is a list of core courses taken by many students and recommended courses that are appropriate to specific research areas. These courses are suggestions only; the student and their committee ultimately decide the best coursework plan for each student's specific program, with final approval from the program's academic committee. Students are responsible for determining that the coursework chosen meets the Graduate School's criteria for graduate work.

Code	Title	Credits
Recommended Course		
SURG SCI 812	Research Ethics and Career Development	2
Any other science-based ethics course		
Core Courses		
These courses are chosen by many students to fulfill their major coursework plan		
GENETICS 466	Principles of Genetics	3
PATH-BIO/HORT 500	Molecular Biology Techniques	3
PATH-BIO/M M & I 773	Eukaryotic Microbial Pathogenesis	3
BIOCHEM 501	Introduction to Biochemistry	3
BIOCHEM/GENETICS/MICROBIO 612	Prokaryotic Molecular Biology	3
BIOCHEM/GENETICS/MD GENET 620	Eukaryotic Molecular Biology	3
BIOCHEM/PHMCOL-M/ZOOLOGY 630	Cellular Signal Transduction Mechanisms	3
ZOOLOGY 570	Cell Biology	3
PATH 750	Cellular and Molecular Biology/Pathology	2-3
PATH 751	Cell and Molecular Biology of Aging	3
STAT/F&W ECOL/HORT 571 & STAT/F&W ECOL/HORT 572	Statistical Methods for Bioscience I and Statistical Methods for Bioscience II	8
Courses from which Students Build Disciplinary Strength		
<i>Epidemiology</i>		
PATH-BIO 512	Introduction to Veterinary Epidemiology	2
POP HLTH/SOC 797	Introduction to Epidemiology	3

POP HLTH 802	Advanced Epidemiology: Etiology and Prevention	3
<i>Physiology</i>		
AN SCI/DY SCI 434	Reproductive Physiology	3
COMP BIO 551	Veterinary Physiology A	4
COMP BIO 506	Veterinary Physiology B (spring)	4
ZOOLOGY 611	Comparative and Evolutionary Physiology	3
ZOOLOGY/AN SCI/OBS&GYN 954	Seminar in Endocrinology-Reproductive Physiology	1
<i>Infectious Disease and Immunology</i>		
M M & I 701	Infection and Immunity I	4
PATH-BIO 510	Veterinary Immunology	3
PATH-BIO 513	Veterinary Virology	2
PATH-BIO 514	Veterinary Parasitology	3
PATH-BIO 517	Veterinary Bacteriology and Mycology	4
PATH-BIO/M M & I/MICROBIO 528	Immunology	3
PATH-BIO/M M & I 750	Host-Parasite Relationships in Vertebrate Viral Disease	3
PATH-BIO/M M & I 773	Eukaryotic Microbial Pathogenesis	3
M M & I/PATH-BIO 720	Advanced Immunology: Critical Thinking	3
M M & I/MICROBIO/PATH-BIO 790	Immunology of Infectious Disease	3
<i>Neuroscience</i>		
COMP BIO 505	Veterinary Neuroanatomy and Neurophysiology	3
ZOOLOGY/PSYCH 523	Neurobiology	3
NTP/NEURODPT 610	Cellular and Molecular Neuroscience	4
NTP/NEURODPT/PSYCH 611	Systems Neuroscience	4
<i>Toxicology and Pharmacology</i>		
COMP BIO 555	Veterinary Toxicology	2
<i>Oncology</i>		
M&ENVTOX/MEDICINE/ONCOLOGY/PHM SCI/PHMCOL-M/POP HLTH 625	Toxicology I	3
M&ENVTOX/MEDICINE/PHM SCI/PHMCOL-M/POP HLTH 626	Toxicology II	3
ONCOLOGY 675	Advanced or Special Topics in Cancer Research	1-3
ONCOLOGY 703	Carcinogenesis and Tumor Cell Biology	3
<i>Virology</i>		
PATH-BIO 513	Veterinary Virology	2
BIOCHEM/M M & I 575	Biology of Viruses	2

ONCOLOGY/ MICROBIO/ PL PATH 640	General Virology-Multiplication of Viruses	3
M M & I/PATH- BIO 750	Host-Parasite Relationships in Vertebrate Viral Disease	3

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy>) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

MAJOR-SPECIFIC POLICIES

GRADUATE PROGRAM HANDBOOK

The Graduate Program Handbook (<https://www.vetmed.wisc.edu/ms-phd/current-students/documents-and-forms>) is the repository for all of the program's policies and requirements.

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students may transfer no more than 9 credits of advanced graduate coursework from other institutions. These courses may not be used toward the Graduate School's Minimum Graduate Residence Credit. Coursework earned ten or more years prior to admission to the doctoral degree is not allowed to satisfy requirements.

UW-Madison Undergraduate

With program approval, students may count up to 7 credits of advanced undergraduate coursework taken at UW-Madison in lieu of or in combination with credits transferred from another institution. These courses must meet the Graduate School's criteria as graduate coursework and may not be used toward the 50% graduate coursework requirement unless taken at the 700 level or above.

UW-Madison University Special

With program approval, students may count up to 9 credits of coursework numbered 400 or above taken as a UW-Madison special student in lieu of or in combination with credits transferred from another institution or as a UW-Madison undergraduate. Coursework taken as a University Special student would not be allowed to count toward the 50% graduate coursework minimum unless taken at the 700 level or above. Coursework earned ten or more years prior to admission to the doctoral degree is not allowed to satisfy requirements.

PROBATION

A semester GPA below 3.0 will result in the student being placed on academic probation. If a semester GPA of 3.0 is not attained during the subsequent semester of full or part-time enrollment the student may be dismissed from the program or allowed to continue based on advisor appeal to the Graduate School.

ADVISOR / COMMITTEE

All students must have an advisor prior to final admission unless offered a rotation. A dissertation committee consisting of five members, the advisor plus two program trainers and two outside members, must be chosen by the end of the first year. The fifth member may be a scientist, industry expert, or member of the faculty from another institution. All committee members of your final oral examination committee will be designated as readers.

CREDITS PER TERM ALLOWED

15 credits

TIME CONSTRAINTS

Certification should be completed by the end of the first year of enrollment.

Preliminary examination A should be taken by the end of the second year.

Preliminary examination B should be taken by the end of the third year.

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing preliminary examination B may be required to take another preliminary examination to be admitted to candidacy a second time.

Doctoral degree students who have been absent for ten or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements, but that coursework may not count toward Graduate School credit requirements.

OTHER

Most students must be accepted by a major professor in the CBMS Graduate Program before they can be fully admitted to the program. Rotations are offered to a limited number of entering students (1–2) in the fall semester.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd>) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Articulates, critiques, or elaborates the theories, research methods, and approaches to inquiry and/or schools of practice in the field of study.
2. Articulates sources and assembles evidence pertaining to questions or challenges in the field of study.
3. Assesses and/or applies methodologies and practices in the field of study.

4. Articulates challenges involved in practicing the field of study, elucidates its leading edges, and delineates its current limits with respect to theory, knowledge, and/or practice.
5. Appreciates the implication of the primary field of study in terms of challenges, trends, and developments in a broader scientific context.
6. Initiates, assembles, arranges and/or reformulates ideas, concepts, designs, and/or techniques in carrying out a project beyond conventional boundaries.
7. Engages diverse cultural, historical or scientific perspectives and articulates how these perspectives contribute to a project, paper or performance.
8. Demonstrates abilities to apply knowledge through critical thinking, inquiry, and analysis to solve problems, engage in scholarly work, and/or produce creative products.
9. Evaluates, assesses or refines information resources or an information base within the field.
10. Communicates clearly in styles appropriate to the field of study.
11. Develops hypothesis, creates research, scholarship or performance that makes a substantive contribution to the field of study.
12. Demonstrates breadth within their learning experiences.
13. Implements methodologies and/or practices to test hypotheses and illustrates the implications of the experimental outcome to the field of study and its relationship to allied fields.
14. Develops new concepts and methodologies and/or identifies new research opportunities.
15. Communicates complex and/or ambiguous ideas clearly.
16. Evaluates the implications of one's own scholarship/research/performance to broader scientific advancement.
17. Recognizes and applies ethical conduct and professional guidelines.
18. Fosters ethical conduct and professional guidelines.

PEOPLE

Faculty: See Comparative Biomedical Sciences (<http://www.vetmed.wisc.edu/ms-phd/current-students/faculty-trainers>) faculty list.

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Business: Finance, Investment, and Banking: Corporate Finance and Investment Banking, MBA	569	Chemistry	240
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Business: Operations and Technology Management, MBA	1110	Civil and Environmental Engineering, Ph.D.	280
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Communication Sciences and Disorders, M.S.	347	Dance, MFA	420
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Comparative Literature and Folklore Studies: Folklore Studies, M.A.	361	Educational Leadership and Policy Analysis, Doctoral Minor	430
Comparative Literature and Folklore Studies: Folklore Studies, Ph.D.	370	Educational Leadership and Policy Analysis, M.S.	430
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Educational Psychology: Professional Educator (MSPE), M.S.	464	Environmental Conservation: Environmental Observation and Informatics, M.S.	622
Electrical and Computer Engineering	475	Epidemiology, M.S.	1180
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Engineering Physics	524	French, Ph.D.	598
Engineering: Engine Systems, M.Eng.	495	French Studies, MFS	590
Engineering: Engineering Data Analytics, M.Eng.	497	Freshwater Marine Science, Doctoral Minor	847
Engineering: Engineering Management, M.Eng.	499	Freshwater Marine Science, M.S.	847
Engineering: Manufacturing Systems Engineering, M.Eng.	502	Freshwater Marine Science, Ph.D.	849
Engineering: Sustainable Systems Engineering, M.Eng.	504	Fundamentals of Clinical Research, Graduate/Professional Certificate .	820
Engineering: Technical Japanese, M.Eng.	506	Gaylord Nelson Institute for Environmental Studies	607
English	539	Gender and Women's Studies	628
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Geoscience, Doctoral Minor	654	Industrial Engineering, M.S.	771
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Geoscience, Ph.D.	657	Industrial Engineering: Human Factors and Health Systems Engineering, M.S.	777
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Human Ecology, Doctoral Minor	731	Landscape Architecture, M.S.	1157
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Human Ecology, Ph.D.	750	Latin American, Caribbean, and Iberian Studies, Doctoral Minor	829
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Library and Information Studies: Campus Delivered Program, M.A.	798	Medical History and Bioethics	1035
Library and Information Studies: Distance Delivered Program, M.A.	802	Medical Physics	1035
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Life Sciences Communication, Doctoral Minor	904	Medical Physics, M.S.	1036
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Manufacturing Systems Engineering: Engineering Management Specialization, M.S.	520	Molecular and Cellular Pharmacology, M.S.	1050
Marketing	920	Molecular and Cellular Pharmacology, Ph.D.	1053
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Materials Science, M.S.	947	Neuroscience, M.S.	1063
Materials Science, Ph.D.	949	Neuroscience, Ph.D.	1066
Mathematics	952	Nuclear Engineering and Engineering Physics, M.S.	533
Mathematics, Doctoral Minor	952	Nuclear Engineering and Engineering Physics, Ph.D.	535
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Mathematics: Foundations of Advanced Studies, M.A.	955	Nursing, Doctoral Minor	1082
Mead Witter School of Music	960	Nursing, M.S.	1082
Mechanical Engineering	1010	Nursing, Ph.D.	1085
Mechanical Engineering, Doctoral Minor	1010	Nursing Practice, DNP	1077
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		Nutritional Sciences, Doctoral Minor	1094

Nutritional Sciences, M.S.	1095	Population Health Sciences	1180
Nutritional Sciences, Ph.D.	1098	Population Health: Epidemiology, M.S.	1193
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Pharmacy, M.S.	1124	Psychology, M.A.	1202
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Philosophy	1134	Psychology, Ph.D.	1206
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Physics, Ph.D.	1151	Rehabilitation Counselor Education, Doctoral Minor	1221
Physics: Quantum Computing, M.S.	1151	Rehabilitation Counselor Education, Ph.D.	1222
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Physiology, M.S.	1071	Religious Studies	1231
Physiology, Ph.D.	1073	Religious Studies, Doctoral Minor	1231
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Plant Breeding and Plant Genetics, M.S.	58	Russian, East European and Central Asian Studies, Doctoral Minor	837
Plant Breeding and Plant Genetics, Ph.D.	61	Russian, East European and Central Asian Studies, Graduate/Professional Certificate	837
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Plant Pathology, M.S.	1169	Scandinavian Studies, M.A.	666
Plant Pathology, Ph.D.	1172	Scandinavian Studies, Ph.D.	670
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Social Work: Part Time MSW Madison, MSW	1250	Urban and Regional Planning, Ph.D.	1165
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Sociology, Ph.D.	1257	Water Resources Management, Doctoral Minor	625
Soil Science	1261	Water Resources Management, M.S.	626
Soil Science, Doctoral Minor	1262	Wildlife Ecology, Doctoral Minor	584
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