# MATHEMATICS, CERTIFICATE

The primary purpose of the mathematics certificate is to serve those students who wish to enhance their content knowledge in mathematics but are unable to complete the requirements of a second major.

#### HOW TO GET IN

Students must meet with a math advisor in order to declare and to discuss course selection. Math advisor information is provided at the math advising page (http://www.math.wisc.edu/undergraduate/advising/).

#### REQUIREMENTS

The certificate requires a minimum of 12 credits. Note that at most one course from each of the following groupings may be used to fulfill the minimum credit requirement: Intro Linear Algebra (MATH 320, MATH 340, MATH 341, MATH 375), Intro Differential Equations (MATH 319, MATH 320, MATH 376), and Intro Probability (MATH/STAT 309, MATH 331, MATH/STAT 431).

Code	Title	Credits
Requirements	1, 2	
3 credits MATH 400-699		3
9 credits from MATH 307–699		9
Total Credits		12

#### Total Credits

#### Footnotes

1

Excluding MATH/CURRIC 471.

#### 2

At most one (1) course each from these groups may apply:

- Linear Algebra: MATH 320, MATH 340, MATH 341, MATH 375
- Differential Equations: MATH 319, MATH 320, MATH 376
- Probability: MATH/STAT 309, MATH 331 MATH/STAT 431

## **RESIDENCE & QUALITY OF WORK**

- At least 9 certificate credits must be completed in residence.
- Minimum 2.000 GPA on all certificate courses.

### UNDERGRADUATE/SPECIAL STUDENT CERTIFICATES

This certificate is intended to be completed in the context of an undergraduate degree and for those seeking this certificate that is preferred. For students who have substantially completed this certificate at UW-Madison and may need one or two courses to complete the certificate, they may do so immediately after completion of the bachelor's degree by enrolling in the course as a University Special (nondegree) student. The certificate must be completed within a year of completion of the bachelor's degree. Students should keep in mind that University Special students have the last registration priority and that may limit availability of desired courses. Financial aid is not available when enrolled as a University Special student to complete an undergraduate certificate.

#### LEARNING OUTCOMES

- 1. State, explain, and apply the principal results, definitions, and theorems of a wide collection of mathematical areas.
- 2. Acquire a diverse set of skills and strategies in mathematical reasoning/problem solving.
- 3. Use mathematics to model and analyze problems in other disciplines.

#### ADVISING AND CAREERS

#### **ADVISING**

Students who are interested in the math major should visit a faculty advisor. Information about current advisor availability is on the Math advising page (https://www.math.wisc.edu/undergraduate/advising/).

For advice on college algebra, pre-calculus, and calculus, see the placement advising pages (https://www.math.wisc.edu/ undergraduate/placement/) of the department.

## L&S CAREER RESOURCES

Every L&S major opens a world of possibilities. SuccessWorks (https:// successworks.wisc.edu/) at the College of Letters & Science helps students turn the academic skills learned in their major, certificates, and other coursework into fulfilling lives after graduation, whether that means jobs, public service, graduate school or other career pursuits.

In addition to providing basic support like resume reviews and interview practice, SuccessWorks offers ways to explore interests and build career skills from their very first semester/term at UW all the way through graduation and beyond.

Students can explore careers in one-on-one advising, try out different career paths, complete internships, prepare for the job search and/or graduate school applications, and connect with supportive alumni and even employers in the fields that inspire them.

- SuccessWorks (https://careers.ls.wisc.edu/)
- Set up a career advising appointment (https://successworks.wisc.edu/ make-an-appointment/)
- Enroll in a Career Course (https://successworks.wisc.edu/careercourses/) - a great idea for first- and second-year students:
  - INTER-LS 210 L&S Career Development: Taking Initiative (1 credit)
  - INTER-LS 215 Communicating About Careers (3 credits, fulfills Comm B General Education Requirement)
- Learn about internships and internship funding (https:// successworks.wisc.edu/finding-a-job-or-internship/)
  INTER-LS 260 Internship in the Liberal Arts and Sciences
- Activate your Handshake account (https://successworks.wisc.edu/ handshake/) to apply for jobs and internships from 200,000+ employers recruiting UW-Madison students
- Learn about the impact SuccessWorks has on students' lives (https:// successworks.wisc.edu/about/mission/)

#### PEOPLE

### **PROFESSORS:**

Anderson, David F Andrews, Uri Arinkin, Dima Caldararu, Andrei Craciun, Gheorghe Denisov, Sergey Ellenberg, Jordan Erman, Daniel M Feldman, Mikhail Gong, Xianghong Gurevich, Shamgar Kent, Autumn Exum (Graduate Director) Lempp, Steffen Mari-Beffa, Gloria Maxim, Laurentiu Miller, Joseph S Paul, Sean T Poltoratski, Alexei Roch, Sebastien Rycroft, Christopher Seeger, Andreas Seppalainen, Timo Smith, Leslie M. Soskova, Mariya Spagnolie, Saverio Stechmann, Sam Stovall, Betsv Street, Brian Thomas (Associate Chair) Terwilliger, Paul M. Thiffeault, Jean-Luc (Chair) Tran, Hung Vinh Valko, Benedek (Undergraduate Director) Waleffe, Fabian Yang, Tonghai

### ASSOCIATE PROFESSORS

Dymarz, Tullia Maria Guo, Shaoming Ifrim, Mihaela Kim, Chanwoo Li, Qin Marshall, Simon Lindsay Shen, Hao Shcherbyna, Tetyana Wang, Botong Zimmer, Andrew

### ASSISTANT PROFESSORS

Albritton, Dallas Apisa, Paul Chen, Nan Cochran, Amy Fabien, Maurice Kemeny, Michael L J Lawrence, Brian Loving, Marissa Lyu, Hanbaek Ohm, Laurel Rodriguez, Jose Israel Uyanik, Caglar Waldron, Alex Wu, Chenxi Zepeda-Nunez, Leonardo

## ACADEMIC STAFF

Benguria Andrews, Soledad (Calculus Coordinator) Friedman, Tracii (Math Learning Center Director) Grizzard, Robert (Associate Director for Instructional Programs) Ivanov, Mikhail (Math Learning Center Instructor) Jackson, Billy (Director of the Precalculus Program) Keller, Mitch (Associate Director of Undergraduate Programs) Kwon, Oh Hoon (Associate Director of the Precalculus Program) Lindsey, Melissa (Director of Instructional Support) Phillipson, Kaitlyn (Undergraduate Course Coordinator) Williams, Cassie (Associate Director of Instructional and Professional Development) Work, Grace (Associate Director of Undergraduate Research)

### **ENROLLMENT COORDINATOR**

Kyle Martinez