

PHARMACEUTICAL SCIENCES, PH.D.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (<http://guide.wisc.edu/graduate/#policiesandrequirements>), 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

Accelerated: Accelerated programs are offered at a fast pace that condenses the time to completion. Students typically take enough credits aimed at completing the program in a year or two.

Evening/Weekend: Courses meet on the UW-Madison campus only in evenings and/or on weekends to accommodate typical business schedules. Students have the advantages of face-to-face courses with the flexibility to keep work and other life commitments.

Face-to-Face: Courses typically meet during weekdays on the UW-Madison Campus.

Hybrid: These programs combine face-to-face and online learning formats. Contact the program for more specific information.

Online: These programs are offered 100% online. Some programs may require an on-campus orientation or residency experience, but the courses will be facilitated in an online format.

CURRICULAR REQUIREMENTS

Requirement Detail

Minimum Credit Requirement	51 credits
Minimum Residence Credit Requirement	32 credits
Minimum Graduate Coursework Requirement	26 credits must be graduate-level coursework. Details can be found in the Graduate School's Minimum Graduate Coursework (50%) policy (https://policy.wisc.edu/library/UW-1244 (https://policy.wisc.edu/library/UW-1244/)).
Overall Graduate GPA Requirement	3.00 GPA required. This program follows the Graduate School's policy: https://policy.wisc.edu/library/UW-1203 (https://policy.wisc.edu/library/UW-1203/).

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://students.pharmacy.wisc.edu/pharmsci-handbook/o-preliminary-exam> (<https://students.pharmacy.wisc.edu/pharmsci-handbook/o-preliminary-exam/>)).

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://students.pharmacy.wisc.edu/pharmsci-handbook/q-phd-thesis-defense> (<https://students.pharmacy.wisc.edu/pharmsci-handbook/q-phd-thesis-defense/>)).

Language Requirements There are no language requirements in the Pharmaceutical Sciences Ph.D. program.

Graduate School Breadth Requirement A doctoral minor or graduate/professional certificate is not required.

REQUIRED COURSES

Code	Title	Credits
Foundational Content		
PHM SCI 780	Principles of Pharmaceutical Sciences	3
Select 6 credits from two Core Areas:		6
<i>Drug Discovery Core:</i>		
PHM SCI 786	Natural Product Synthesis, Biosynthesis and Drug Discovery	
<i>Drug Action Core:</i>		
PATH 750	Cellular and Molecular Biology/Pathology	
PHM COL-M 781	Molecular and Cellular Principles in Pharmacology	
BIOCHEM/ PHM COL-M/ ZOOLOGY 630	Cellular Signal Transduction Mechanisms	
<i>Drug Delivery Core:</i>		
PHM SCI/ CHEM 766	Molecular Recognition	
PHM SCI 773	Molecular Solids	
PHM SCI 775	Polymeric Drug Delivery	
Research ethics/Responsible conduct of research		
PHARMACY 800	Research Ethics: Scientific Integrity and the Responsible Conduct of Research	2
Seminar & Research		37
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
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PHM SCI 990	Research ²
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PHM SCI 999	Advanced Independent Study ³
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Three additional credits from the Drug Action, Drug Delivery, or Drug Discovery electives. 3

Courses with the graduate attribute in the following subject listings can count toward this requirement: ANATOMY, ANAT&PHYS, BIOCHEM, BSE, BIOLOGY, BME, BMOLCHEM, BMI, BOTANY, CRB, CBE, CHEM, COMP BIO, COMP SCI, ECE, EP, FAM MED, FOOD SCI, GENETICS, H ONCOL, ISY E, MS & E, MATH, MD GENET, M M&I, MED PHYS, MED SC-M, MED SC-V, MEDICINE, MICROBIO, M&ENVTOX, MOL BIOL, NEUROL, NEURODPT, NTP, NURSING, NUTR, SCI, ONCOLOGY, PATH-BIO, PATH, PHM SCI, PHMCOL-M, PHS, PHYSICS, PL PATH, PSYCH, RADIOL, SOIL SCI, SURGERY, SURG SCI, ZOOLOGY. A list of popular elective courses at this level taken by recent Pharmaceutical Sciences graduate students is maintained at <https://pharmacy.wisc.edu/programs/pharmsci/curriculum/electives> (<https://pharmacy.wisc.edu/programs/pharmsci/curriculum/electives/>).

Total Credits 51

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.

3

Research rotations in first semester of first year. At least one credit required.

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.