

PHARMACEUTICAL SCIENCES: RESEARCH, MS

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum degree requirements (<https://guide.wisc.edu/graduate/#requirements>) and policies (<https://guide.wisc.edu/graduate/#policies>), 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

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	30 credits
Minimum Residence Credit Requirement	16 credits
Minimum Graduate Coursework Requirement	15 credits must be graduate-level coursework. Refer to the Graduate School: Minimum Graduate Coursework (50%) Requirement policy: https://policy.wisc.edu/library/UW-1244 (https://policy.wisc.edu/library/UW-1244/).

Overall Graduate GPA Requirement	3.00 GPA required. Refer to the Graduate School: Grade Point Average (GPA) Requirement policy: https://policy.wisc.edu/library/UW-1203 (https://policy.wisc.edu/library/UW-1203/).
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 MS candidate to engage in a research project of a scope appropriate to the time devoted to earning the degree. The MS degree may be awarded following approval of the candidate's committee after either of the following: - passing of the preliminary exam or - writing a MS thesis describing the candidate's research that is presented and defended before the student's MS thesis committee.
Language Requirements	No language requirements.

REQUIRED COURSES

Code	Title	Credits
Foundational Content		
PHM SCI 680	Principles of Pharmaceutical Sciences	3
Core Areas		
Complete at least 3 credits from two different 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 & PATH 752	Cellular and Molecular Biology/ Pathology and Cellular and Molecular Biology/ Pathology Seminar	
PHM COL-M 781	Molecular and Cellular Principles in Pharmacology	
<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		
Complete 16 credits as required from following:		16
PHM SCI 931	Pharmaceutical Sciences Seminar ¹	
PHM SCI 932	Pharmaceutical Sciences Seminar ¹	
PHM SCI 990	Research ²	
PHM SCI 999	Advanced Independent Study ³	
Additional Coursework		
Three additional credits from the Drug Action, Drug Delivery, or Drug Discovery electives.		3

Courses approved by the student's advisor that have the graduate attribute in the following subject listings may be appropriate: ANATOMY, ANAT&PHY, BIOCHEM, BSE, BIOLOGY, B M E, BMOLCHEM, B M I, BOTANY, CRB, CBE, CHEM, COMP BIO, COMP SCI, E C E, E P, FAM MED, FOOD SCI, GENETICS, H ONCOL, I SY E, M S & 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, POP HLTH, PHYSICS, PL PATH, PSYCH, RADIOL, SOIL SCI, SURGERY, SURG SCI, ZOOLOGY.

Total Credits**30**

- 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.