

# PRE-PHARMACY

Scientific advances, an aging population, and expansion of insurance coverage for more Americans all will contribute to growth in the pharmacy industry. Employment of pharmacists is expected to increase by 25 percent from 2010 to 2020, faster than the average for all occupations.

The Doctor of Pharmacy degree (PharmD) is the professional degree needed to enter the pharmaceutical field. Most PharmD programs take four years to complete after completion of the minimum prerequisites or an undergraduate degree. Entrance to pharmacy school is competitive and there are more applicants than there are open seats. Different schools also have different prerequisites; it is very important that students consult with the Pre-Pharmacy advisor every semester beginning freshman year in addition to communicating with pharmacy schools they plan to apply to.

UWM offers all of the prerequisite coursework necessary for students to apply to professional pharmacy schools and colleges throughout the country. Although it is theoretically possible to complete the pre-pharmacy requirements in two years and proceed directly to pharmacy school, the current national average for completion of the pre-pharmacy coursework is three years. In addition, given the highly competitive nature of gaining admission to pharmacy school, students may present a stronger application if they complete four years of college and earn a Bachelor's degree before going to pharmacy school.

Please review the Pre-Pharmacy Fact Sheet (<http://uwm.edu/letters-science/programs/?discipline=Pre-Pharmacy>) for information about suggested undergraduate courses to prepare for pharmacy school, career outlook for pharmacists, and options for your major. Pre-Pharmacy is not a major, and students must still choose a major. Since most of the prerequisites necessary for application to pharmacy school are in the sciences, many students choose a science major, though it is not required. Our specialized Pre-Pharmacy advisor works with students to ensure they understand all of the milestones that must be met in college in order to be a competitive applicant to pharmacy school. We recommend students begin meeting with this advisor as soon as freshman year in order to plan all needed activities into your college career.

## Requirements

Entrance to pharmacy school is very competitive and requires strong grades and satisfactory scores on the Pharmacy College Admission Test (PCAT). Due to the variance in admission requirements, it is very important that students consult with the pre-pharmacy advisor every semester.

Although specific admission requirements may vary among schools, below are some common course requirements among many pharmacy schools:

Code	Title	Credits
BIO SCI 150 & BIO SCI 152	Foundations of Biological Sciences I and Foundations of Biological Sciences II	8
CHEM 102 & CHEM 104	General Chemistry and General Chemistry and Qualitative Analysis	10
CHEM 343	Organic Chemistry	3

CHEM 344	Organic Chemistry Laboratory	2
CHEM 345	Organic Chemistry	3
Select one of the following sequences:		5
PHYSICS 120 & PHYSICS 121	General Physics I (Non-Calculus Treatment) and General Physics Laboratory I (Non-Calculus Treatment)	
PHYSICS 209 & PHYSICS 214	Physics I (Calculus Treatment) and Lab Physics I (Calculus Treatment)	
Select one of the following:		4-5
MATH 231	Calculus and Analytic Geometry I	
MATH 221	Honors Calculus I	
MATH 211	Survey in Calculus and Analytic Geometry I <sup>1</sup>	

Other common course requirements include (but are not limited to) the following:

Code	Title	Credits
ENGLISH 101 & ENGLISH 102	Introduction to College Writing and College Writing and Research	6
BIO SCI 202 & BIO SCI 203	Anatomy and Physiology I and Anatomy and Physiology II	8
BIO SCI 101 or BIO SCI 383	General Survey of Microbiology <sup>2</sup> and General Microbiology	4
CHEM 501	Introduction to Biochemistry	3
MTHSTAT 215 or BIO SCI 465	Elementary Statistical Analysis and Biostatistics	3
Coursework in social sciences:		
ECON 103 or ECON 104	Principles of Microeconomics and Principles of Macroeconomics	3
PSYCH 101	Introduction to Psychology	3
Additional coursework in the social sciences		
Coursework in humanities (e.g., history, philosophy)		
Coursework in communication:		
COMMUN 101	Introduction to Interpersonal Communication	3
COMMUN 103	Public Speaking	3
Coursework designated as satisfying the cultural diversity requirement		

<sup>1</sup> Not every pharmacy school will accept MATH 211.

<sup>2</sup> Or both BIO SCI 101 and BIO SCI 383 for 8 credits.

## Contact Information

Current Students contact Pre-Pharmacy Advisor Laura Stark, [starkl@uwm.edu](mailto:starkl@uwm.edu)

Prospective Students contact a Letters & Science Admissions Counselor at (414) 229-7711 or [let-sci@uwm.edu](mailto:let-sci@uwm.edu)