

## Pre-Pharmacy

Pharmacists are experts on drugs and drug therapy. Pharmacists package and dispense prescription medications, advise on use of non-prescriptive drugs, and calculate doses and prepare medicines for patients. Pharmacists with an interest in academic or research pharmacy teach in hospitals, universities or medical schools, or pursue a career with a pharmaceutical company. There are about 129 accredited schools of pharmacy in the United States. Pharmacy programs grant the degree of Doctor of Pharmacy (Pharm.D.). The PharmD is a 4-year program that requires at least two years of college study prior to admittance, although most applicants have earned a bachelor's degree. Students who apply to a PharmD program without a bachelor's degree are less competitive than those who have completed a degree.

### Admission Requirements:

- Minimum of 60-95 credits of college education (Bachelor's degree strongly recommended)
- Completion of all prerequisite courses
- Competitive cumulative and prerequisite GPAs (3.6 overall average for those accepted)
- Competitive Pharmacy College Admissions Test (PCAT) score
- Letters of recommendation
- Completed application with Pharmacy Centralized Application Service (PharmCAS)
- Face-to-face interview

**Required Pre-Pharmacy Courses:** (Admission requirements and prerequisites may differ from school to school so it is important to check with schools for specific requirements.)

Courses	Required Credits Univ. of WI-Madison	Required Credits University of MN	Suggested UWEC Courses
English	3 credits	1 adv writing course	WRIT 116 (5cr) + an addl ENGL course
Mathematics	4 credits	Calculus	MATH 109 + MATH 112 or 113 & 114 (4+cr)
General chemistry	8 credits	2 courses	CHEM 103 & 104 (8cr) or CHEM 115* & CHEM 213 (10cr)
Organic chemistry	8 credits	2 courses	CHEM 325 & 326 (8cr)
Physics	8 credits	1 course (calc based) OR 2 courses (alg based)	PHYS 211 & 212 (alg based) (9cr) or PHYS 231 & 232 (calc based) (10cr)
General Biology	8 credits	1 course	BIOL 221 (4 cr), 222 & 223 (5cr)
Advanced Biology	-	1 course	BIOL 302 or BIOL 300 or BIOL 304 (3-4cr)
Human Anat & Phys	-	2 courses	BIOL 214 & BIOL 314 (8cr)
Psychology	3 credits	1 course	PSYC 100 (3cr)
Social Science	3 credits	1 course	SOC 101 (3cr) or ANTH 161 (3cr)
Statistics	3 credits	1 course	MATH 245 (3cr) or MATH 246 (4cr)
Microbiology	3 credits	1 course with lab	BIOL 250 (3cr) or BIOL 361 (lab) (5cr)
Microeconomics	3-4 credits	-	ECON 103 (3cr)
Ethnic diversity	3 credits	-	Cultural diversity course (3cr)
Communications	-	1 course	CJ202 (3cr)

\*CHEM 115 requires a strong background in high school math and chemistry

**Pharmacy College Admission Test (PCAT):** This standardized exam is required for admission into pharmacy schools. The exam consists of 6 parts: Writing, Verbal Ability, Biology, Chemistry, Reading Comprehension and Quantitative Ability. It is often taken in the spring semester of the junior year. Go to: [pcatweb.info](http://pcatweb.info) for more information on the PCAT.

**Non-Academic Considerations:** Applicants are required to obtain experience in the pharmacy profession. Pre-pharmacy students should become knowledgeable about health care settings, and should seek out job and volunteer opportunities with pharmacists. These healthcare professionals can provide important recommendations to support your application to pharmacy school. Seek out health related experiences, job shadowing and volunteering opportunities early!

**Suggested Pre-Pharmacy Curriculum:** The following program is suggested for a student in any major and is designed to take the Pharmacy College Admission Test (PCAT) in the junior year. It is important that students work with a pre-pharm advisor each semester.

<b>Freshman year – Fall</b> Math 109, 112, 113, or 114** CHEM 103 BIOL 221 WRIT 116	<b>Freshman year – Spring</b> Math 112, 113, or 114** BIOL 222/223 CHEM 104 PSYC 100
<b>Sophomore year – Fall</b> BIOL 214 CHEM 325 MATH 246 Social Science course/GE & Major courses	<b>Sophomore year – Spring</b> BIOL 314 CHEM 326 Communications Course GE & Major courses
<b>Junior year – Fall</b> BIOL 361 PHYS 211 GE & Major courses (Prepare for PCAT)	<b>Junior year – Spring</b> PHYS 212 GE & Major courses (Take PCAT and apply to schools in summer)
<b>Senior year – Fall</b> Complete Major/Minor/GE Additional recommended courses	<b>Senior year – Spring</b> Complete Major/Minor/GE Additional recommended courses

\*\* Beginning course in mathematics depends on UWEC Mathematics Placement Exam score

### UWEC Pre-Pharmacy Advisors:

Dr. Cheryl Muller (mullercl@uwec.edu)  
 Dr. Scott Bailey-Hartsel (hartsesc@uwec.edu)  
 Dr. Julie Anderson (anderju@uwec.edu)

### More information:

- University of Wisconsin – Madison [www.pharmacy.wisc.edu/](http://www.pharmacy.wisc.edu/)
- Concordia University (WI) [www.cuw.edu/Programs/pharmacy/index.html](http://www.cuw.edu/Programs/pharmacy/index.html)
- University of Minnesota [www.pharmacy.umn.edu/](http://www.pharmacy.umn.edu/)
- University of Illinois – Chicago [www.uic.edu/pharmacy/](http://www.uic.edu/pharmacy/)
- For a list of all schools: [www.aacp.org](http://www.aacp.org)

Visit the *Health Careers Center* in Schofield Hall 30 or at [www.uwec.edu/health-careers-center/index.htm](http://www.uwec.edu/health-careers-center/index.htm) and join the *Pre-Professional Health Club* to learn more about healthcare, professional school applications, and pre-pharmacy opportunities.