Pharmacy (PharmD)

Career Description

- The Doctor of Pharmacy prepares students for a demanding and rapidly evolving profession. Pharmacists are medication experts who are concerned about their patients’ health and wellness.
- Pharmacists are on the frontline of healthcare. Because people often feel comfortable approaching pharmacists and seeking advice from them, they are important in providing information and for connecting patients with additional care.
- Pharmacists’ responsibilities go well beyond dispensing medications. They monitor patient health and progress with a medication, educate people on medication use, administer immunizations, adjust medications and dosages, advise physicians and other healthcare providers on medication decisions, and monitor prescriptions for drug interactions.

Becoming a Pharmacist

- A Doctor of Pharmacy program requires at least two years of undergraduate pre-pharmacy study followed by four academic years of study in the professional level program.
- For Purdue’s program, most students enter as freshmen in the pre-pharmacy program and apply to the Pharm.D. program in their second year. If admitted, they continue for 4 more years to become pharmacists.
- Students may also begin their studies in another area and apply to Purdue’s pharmacy program or another pharmacy program. Some students complete their 4 year undergraduate degree while others apply after 60 or 90 credit hours.
- Some schools will require an admissions exam called the PCAT (the Pharmacy College Admission Test).
- To practice, students must complete their Pharm.D., spend a specified number of hours in a practice setting, and pass a licensure exam and, in most states, a pharmacy law exam.
- Certain areas of pharmaceutical practice may require a 1-2 year residency program and/or fellowship after graduating.

Preparation

- Explore more about the field to determine whether it is right for you at https://pharmacyforme.org/
- Begin researching schools early in your academic career as programs have different admissions requirements.
- Spend time working in pharmacies and/or observing pharmacists to make sure this is the right field for you.
- Prepare and take the Pharmacy College Admission Test (PCAT), although some schools will accept the MCAT.
- Pharmacy schools typically require courses similar to those listed below.
- All required courses must have a minimum grade of C. Additional information on each college’s requirements can be found on their websites.

### Common Prerequisite Courses (pre-reqs determined by each program but similar to this list)

<table>
<thead>
<tr>
<th>Requirements</th>
<th>Purdue Equivalents (specific courses may vary by major)</th>
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<tbody>
<tr>
<td>Biology with labs</td>
<td>BIOL 11000-11100 or BIOL 13100 &amp; 23100 &amp; 23200 (lab)</td>
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<tr>
<td>Anatomy &amp; Physiology (recommended)</td>
<td>BIOL 20300-20400 or BIOL 30100-30200</td>
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<tr>
<td>Microbiology</td>
<td>BIOL 22100 or BIOL 43800 &amp; 43900</td>
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<tr>
<td>General Chemistry with labs</td>
<td>CHM 11500-11600 or 12500-12600 or 12300-12400 or 12901 or 13600</td>
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<tr>
<td>Organic Chemistry with labs</td>
<td>CHM 25500-25600 or 26100-26200 or 26505-26605 or MCMP 20400-20500</td>
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<tr>
<td>Biochemistry</td>
<td>CHM 33300 or 39300 or 53300 or BCHM 30700 or 56100 or MCMP 20800</td>
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<tr>
<td>Physics (at least 1 semester)</td>
<td>PHYS 22000-22100 or 23300-23400 or 17200-27200 or 17200 &amp; 24100 &amp; 25200 (lab) or ENGR 16100-16200*</td>
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<tr>
<td>Calculus (at least 1 semester)</td>
<td>MATH 15910 or 16010 or 16020 or 16100 or 16200</td>
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<tr>
<td>English (1-2 semesters)</td>
<td>ENGL 10600 or ENGL 10800 or SCLA 10100*; plus upper level writing or literature course</td>
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Other Required or Recommended Courses may include: Statistics, Economics, Calculus 2, Physics 2, Medical Terminology, Biomedical Ethics, Public Speaking, Psychology

**Pre-Med Planning Seminar (optional)**

**BIOL 39600: Pre-Med Planning Seminar-covering how to apply**

*Ask individual pharmacy schools if they will accept these courses toward their requirements.

Student Organizations: Purdue Pre-Pharmacy Club
Researching Programs

- The Pharmacy School Admission Requirements (PSAR) is the best resource for this.
  https://www.aacp.org/resource/pharmacy-school-admission-requirements

Applying

- A common application is available for some of the programs. The system is called PharmCAS
- Competitive applicants will have:
  - Strong academic performance
  - Above average scores on the PCAT (if required)
  - Leadership, teamwork, and communication skills
  - Volunteer and shadowing/observation experiences
  - Strong positive letters of recommendation
- PharmCAS opens mid-July and it is ideal to submit within about a month of the application opening. Apply directly to programs not participating in PharmCAS.

Fee Assistance

- At this time, PCAT does not offer fee assistance or waivers.
- PharmCAS Fee Waiver: http://www.pharmcas.org/preparing-to-apply/what-youll-need-to-apply/application-payment/

Employment Outlook

- A range of career opportunities are available in the field of pharmacy including Community Practice, Government Agencies, Hospice and Home Care, Pharmaceutical Industry, Public Health, Hospital Pharmacies, and more.
- According to the Bureau of Labor Statistics, the median pay in 2018 was $126,120.
- Pharmacists filled 1.9 million prescriptions in 1992 and over 4.1 billion in 2015 (according to the National Association of Chain Drug Stores).
- With an increase in the number of medications, both prescription and over-the-counter, and a recognition of the ways in which drugs interact with what we eat and drink, pharmacists will be more in demand than ever.

Programs in Indiana

- Purdue University West Lafayette, IN https://www.pharmacy.purdue.edu/
- Butler University Indianapolis IN https://www.butler.edu/cophs/pharmd-program
- Manchester University North Manchester IN https://www.manchester.edu/academics/colleges/college-of-pharmacy-natural-health-sciences/pharmacy

More Information

- American Association of Colleges of Pharmacy (AACP) https://www.aacp.org
- Accreditation Council for Pharmacy Education (ACPE) https://www.acpe-accredit.org/
- Pharmacy College Application Service (PharmCAS) http://www.pharmcas.org/
- Pharmacy College Admission Test (PCAT) http://pcatweb.info/
- American Pharmacists Association Career Profiles https://www.pharmacist.com/career-option-profiles

Other Careers to Consider

- Pharmaceutical Research
- Public Health
- Health Administration