

Pharmacy Information

Career Description

Pharmacists dispense drugs prescribed by physicians and other health care practitioners, as well as monitor patient health. They advise physicians and other health care practitioners on the selection, dosages, interactions, and side effects of medications. Pharmacists must understand the use, clinical effects, and composition of drugs; including their chemical, biological, psychological, and physical properties. They protect the public by ensuring drug purity and strength. The goal of pharmacy care is to maximize positive health care outcomes and improve and extend patients' quality of life with minimum risk. Most pharmacists work in a community setting, such as a retail drug store, hospital, or clinic.

Pharmacists in health care facilities dispense medications and advise the medical staff on the selection and effects of drugs. They also plan, monitor, and evaluate drug regimens. They may counsel hospitalized patients on the use of drugs before the patients are discharged. Some pharmacists specialize in specific areas, such as intravenous nutrition support, oncology, nuclear pharmacy (used for chemotherapy), geriatric pharmacy, and psychiatric pharmacy.

Pharmacists are responsible for the accuracy of every prescription that is filled, but they often rely upon pharmacy technicians to assist them in dispensing medications. Thus, the pharmacist may delegate and supervise prescription-filling and administrative tasks.

The average U.S. pharmacist makes around \$124,170 a year (bls.gov). Pharmacists usually work in clean, well-lit, and well-ventilated areas. Many pharmacists spend most of their workday on their feet. When working with sterile or potentially dangerous pharmaceutical products, pharmacists wear gloves and masks and use other special protective equipment. Many community and hospital pharmacies are open for extended hours or around the clock, so pharmacists may work evenings, nights, weekends, and holidays. Consultant pharmacists may travel to nursing homes or other facilities to monitor drug therapy. Most full-time salaried pharmacists work about 40 hours a week; however, many work more than 50 hours a week.

Academic Factors for Pharmacy School Admission

- *Major:* Many pharmacy schools do not require a bachelor's degree before applying, but some give preference to applicants with a bachelor's degree. Some schools offer an "early assurance" program, allowing students to transfer to pharmacy school after two years of pre-professional study (see www.aacp.org for more information). Students interested in attending a pharmacy program may choose any major while at BYU. We recommend that you choose a major you like and incorporate the prerequisite courses into your schedule. Also, choose a major that can be your contingency plan if you do not get into pharmacy school or choose not to go.
- *GPA:* The average overall GPA of BYU students accepted to pharmacy schools in 2017 was 3.34. The average science GPA was 3.22.
- *PCAT Scores:* Approximately two-thirds of pharmacy schools require the PCAT for admission. For BYU students accepted to pharmacy schools in 2017 the average PCAT score was 403 (80th percentile).

Sample Prerequisite Classes

*Remember, the list below is a *sample* and may not be adequate for every school. Consult with your selected schools for actual requirements and better accuracy. Pay close attention to lab requirements and specific credit hours required.

Public Speaking
STDEV 150 Public Speaking

Anatomy & Physiology
PDBIO 220 Human Anatomy and Lab
PDBIO 305 Human Physiology
PDBIO 363 Adv Physiology Lab

Statistics
STAT 121 Principles of Statistics

Calculus
MATH 112 Calculus

Microbiology
MMBIO 221 General Microbiology
MMBIO 222 General Microbiology Lab

PDBIO 120 Science of Biology
(*may not fulfill all requirements, no lab)
MMBIO 121/122 General Biology/Lab

General or Inorganic Chemistry
CHEM 105 General College Chemistry
CHEM 106 General College Chemistry
CHEM 107 General Chemistry Lab

Organic and/or Biochemistry
CHEM 351 Organic Chemistry
CHEM 352 Organic Chemistry
CHEM 353 Organic Chemistry Lab
CHEM 481 Biochemistry I

Physics
PHSCS 105 General Physics I
PHSCS 107 General Physics Lab I
or PHSCS 121/123 (calculus-based)

Biology

Non-Academic Factors Considered for Pharmacy School Admission

Pharmacy schools are looking for well-rounded candidates who have achieved excellence not only in the classroom, but also in other areas like leadership and community service. Because the requirements and the relative weight of these factors often vary between schools, it is recommended that prospective students select a list of schools to tentatively prepare and plan for by following their respective requirements.

- **Rolling Admissions:** PharmCAS, the centralized application service for pharmacy schools, opens in July. Due to rolling admissions it is very important to submit your application as close to the opening date as possible. Often students who are otherwise qualified are not accepted solely due to the fact that there were no more available seats because the student applied too late.
- **Clinical Experience:** Clinical experience with a pharmacist is vital when applying to a pharmacy program. You should become acquainted with a few pharmacists and shadow or work as a pharmacy tech to gain firsthand insight into what pharmacists do on a daily basis. To be competitive, try to obtain at least 60 total shadowing hours in at least two different settings and at least 50 total hours of direct patient care.
- **Community Service:** Emphasis on service varies, but it is recommended to have a history of service, approximately 50+ hours per year. Service activities should demonstrate consistent and long term commitment to helping others, but do not need to be pharmacy related. Community service (teaching English classes, humanitarian service projects, etc.) completed on a mission counts as a starting point, but engagement in your own community is seen as more valuable and should demonstrate a current pattern of service.
- **Leadership:** Experiences that exhibit leadership qualities can be accrued in conjunction with work experience, service, shadowing, and other extracurricular activities.
- **Research:** Experience participating in hypothesis-based research always looks good on your application and is strongly recommended.

Other Resources

- American Association of Colleges of Pharmacy – www.aacp.org
- Pharmacy College Application Service (PHARMCAS) – www.pharmcas.org
- Accreditation Council for Pharmacy Education – www.acpe-accredit.org
- BYU Allied Health Club – alliedhealthclub.byu.edu