

Planning for Pharmacy School



WHY PHARMACY?

Pharmacy is a career that offers great benefits, flexible work schedules, outstanding growth opportunities, profit sharing and much more. If you enjoy working with people, excel in science and would like a rewarding healthcare career, you may want to consider pharmacy.

- **A well-rounded career:** Pharmacy is a blend of science, healthcare, direct patient contact, computer technology and business.
- **A vital part of the healthcare system:** Pharmacists play an integral role in improving patient's health through the medicine and information they provide.
- **Outstanding opportunities:** There is an increasing need for pharmacists in a wide variety of occupational settings.
- **Excellent earning potential:** Pharmacy is one of the most financially rewarding careers.
- **A trusted profession:** Pharmacists are consistently ranked as one of the most highly trusted professionals because of the care and service they provide (according to data by Wirthlin Worldwide and Gallup International).

THE PHARMACY PROFESSION

Although pharmacists are known as professionals whose primary function is to compound and dispense medicines prescribed by physicians, dentists or other authorized health care providers, the responsibilities of pharmacists are substantially broader, primarily in the areas of direct patient care and patient education. Pharmacists must have strong communication skills and the ability to relate well to patients and other health care providers. As pharmacists have become more involved in educating patients about the medications they are taking including drug interactions and side effects, communication skills have become increasingly important. Pharmacists who work in community pharmacies must also develop effective management and interpersonal skills.

The majority of pharmacists work in community pharmacies, from independent prescription only, such as those found in medical offices, to retail chain pharmacies which also sell other items. Other pharmacists work in hospitals and other health care facilities, or are employed in research and development efforts in research or manufacturing companies, or they are engaged in teaching or research in universities. Opportunities are also becoming available for pharmacists with advanced training (PharmD plus fellowship or residency) to work as clinical pharmacists in practitioner specialties such as ambulatory care, clinical pharmacokinetics, geriatrics, oncology, psycho pharmacy, drug information and nutrition support. Pharmacists have also been instrumental in establishing many of the poison information and control centers across the country.

Career Options in Pharmacy:

- Academic pharmacy
- Community practice
- Government agencies
- Hospice and home care
- Hospital and institutional practice
- Long-term care or consulting pharmacy
- Managed care pharmacy

- Medical and scientific publishing
- Pharmaceutical industry
- Pharmaceutical sciences
- Trade or professional associations
- Uniformed (public health) services

Many pharmacists spend most of their workday on their feet. Many community and hospital pharmacies are open for extended hours or around the clock, so pharmacists may work nights, weekends and holidays. Most pharmacists work full time, although about 20 percent worked part time in 2014. There is currently a nationwide shortage of pharmacists, and the job outlook for the profession is excellent. Employment of pharmacists is expected to increase by three percent from 2014 to 2024, slower than the average for all occupations. Median annual wages of wage and salary pharmacists in May 2015 were \$121,500. The lowest 10 percent earned less than \$86,790, and the top 10 percent earned more than \$154,040.

Related Occupations

Pharmacy technicians and pharmacy aides also work in pharmacies. Persons in other professions who may work with pharmaceutical compounds include biological scientists, medical scientists and chemists and materials scientists. Increasingly, pharmacists are involved in patient care and therapy, work they have in common with physicians and surgeons.

HOW TO BECOME A PHARMACIST

The **Doctor of Pharmacy (PharmD)** is the professional degree to prepare licensed pharmacy practitioners. The PharmD is granted after a four-year doctoral program following a minimum two years of pre-pharmacy college coursework. The large majority of students who enter PharmD programs have completed a bachelor's degree. There are currently 135 US pharmacy schools.

The American Association of Colleges of Pharmacy (AACP) annually publishes *Pharmacy School Admission Requirements* (PSAR), which offers information on each pharmacy school. www.aacp.org features the same information and more as well as links to individual school sites.

TEXAS PHARMACY PROGRAMS

- Texas A&M Health Science Center, Rangel College of Pharmacy
- Texas Southern University, College of Pharmacy and Health Sciences
- Texas Tech University Health Sciences Center, School of Pharmacy
- University of Houston, College of Pharmacy
- University of North Texas System College of Pharmacy
- University of the Incarnate Word, Feik School of Pharmacy
- University of Texas at Austin, College of Pharmacy
- The University of Texas at Tyler, Fisch College of Pharmacy

The **professional pharmacy curriculum** is designed to educate pharmacists to:

- Counsel patients on the proper use of their medications;
- Promote the public health;
- Develop and manage medication distribution and control systems;
- Manage pharmacy practice; and
- Plan and perform ongoing evaluations to provide patients with the best drug therapy for their individual needs.

ADMISSION REQUIREMENTS

Admissions committees assess a candidate's **academic preparation** (i.e., undergraduate coursework and GPA and, in some cases, standardized test scores) as well as his or her **professional potential** (via biographic information and knowledge of the profession conveyed in the application and personal characteristics communicated via letters of reference and an admissions interview). Undergraduate grade point averages for entering pharmacy students typically range between 3 and 3.9. Pharmacy schools seek to admit students from a diversity of academic, cultural, economic and social backgrounds.

Pre-pharmacy course requirements typically include, but are not limited to:

<i>General chemistry (with labs)</i>	<i>Physics (with labs)</i>
<i>Organic chemistry (with labs)</i>	<i>Calculus</i>
<i>Biology (with lab)</i>	<i>Economics</i>
<i>Speech/Public speaking</i>	<i>Psychology</i>
<i>Writing/Composition</i>	<i>Statistics</i>

Some schools also require a course in:

<i>Microbiology</i>	<i>Human anatomy</i>
<i>Mammalian physiology</i>	<i>Biochemistry</i>
<i>Interpersonal communication</i>	

Applicants must take additional electives in the humanities and social sciences to satisfy general admission requirements for schools of pharmacy. For the most current admissions requirements, check school specific information on www.pharmcas.org, contact pharmacy schools or review the *Pharmacy School Admission Requirements* publication.

Standardized Tests

Many pharmacy schools require applicants to take the Pharmacy College Admission Test (PCAT), a half-day, computer-based test administered by Pearson and offered on one or more dates in July, September, October, November and January. The test consists of a writing section and four multiple choice sections entitled Biological Processes, Chemical Processes, Critical Reading and Quantitative Reasoning. The PCAT is scored on a scale from 200 to 600. Detailed information about the PCAT, including test center locations (Austin is one option), online registration and sample tests are available online at www.pcatweb.info.

Non-Academic Requirements

Admissions committees are interested in each applicant's personal characteristics such as his/her demonstrated ability to communicate effectively both orally and in writing, motivation to be a pharmacist, maturity and interest in serving others. These qualities are assessed through the information the applicant provides in the application essay, letters of reference and the personal interview. Pharmacy schools encourage applicants to seek out experiences (paid or unpaid) that will help them confirm pharmacy as their career choice. Most successful applicants have some record of experience that might also have helped them develop skills like interviewing, listening, advising or teaching, although such experience is not required.

A **personal statement** or some other form of written narrative is part of each application. This essay provides the candidate an opportunity to describe the process and experience by which he/she decided to become a pharmacist and other academic and life experiences which helped develop the candidate as a person. Career Services will critique essays on request.

Letters of reference (two or three) from some combination of the applicant's instructors, supervisors, extracurricular advisors or pharmacy professionals are required to provide more information on each candidate.

Interviews are required of applicants whom the admissions committee views as most competitive for admission. The interview facilitates assessment of the applicant and affords the chance to tour the campus, meet with faculty and currently enrolled students and learn about financial aid and housing. Interview feedback from students who have interviewed previously at specific schools is very valuable. Visit www.studentdoctor.net to read about interviewing experiences posted by pharmacy school applicants across the country.

THE APPLICATION PROCESS

PharmCAS (Pharmacy College Application Service), a service of the AACP, is the initial pharmacy application for the majority of US pharmacy schools. Applicants complete the PharmCAS application and send college transcripts to PharmCAS. Pharmacy schools then invite qualified applicants to complete a secondary application, including reference letters. **Application deadlines** typical range from November 1 to March 1 for entry in the following Fall. Applicants are advised to apply early, particularly if the school uses a rolling admission process. Consult Pharmacy School Admissions Requirements or www.pharmcas.org for information on curriculum, GPA, test scores, admission requirements, tuition, location, housing and other factors as you choose schools to which you will apply.

ADDITIONAL RESOURCES

Academy of Managed Care Pharmacy: www.amcp.org

American Association of Pharmaceutical Scientists: www.aaps.org

American College of Apothecaries: <http://acainfo.org/>

American Pharmacists Association: www.pharmacist.com

American Society of Consultant Pharmacists: www.ascp.com

American Society of Health-System Pharmacists: www.ashp.org

Bureau of Labor Statistics – Pharmacists: <http://www.bls.gov/ooh/healthcare/pharmacists.htm>

PharmWeb: www.pharmweb.net

National Association of Boards of Pharmacy www.nabp.net

National Association of Chain Drug Stores: www.nacds.org

National Community Pharmacists Association: www.ncpanet.org

Pharmaceutical Research and Manufacturers of America: www.phrma.org

*Adapted from:
Career Services Center, University of California, San Diego
US Department of Labor Bureau of Labor Statistics
www.aacp.org/pharmacycareers*