

PREPARING FOR YOUR CAREER

in pharmacy

So, you want to be a pharmacist?
Start planning now.

The decision to pursue a career in pharmacy is an excellent choice. Pharmacy offers attractive salaries, a comfortable work environment, flexible hours and diverse career options. Sounds great, right? But these luxuries don't come without work—the education process of a pharmacist is intense. In 1992, all the colleges of pharmacy voted to make the doctorate of pharmacy the only acceptable professional pharmacy degree. A five-year Bachelor of Science degree is no longer offered. Obtaining a doctorate in pharmacy requires at least two years of pre-pharmacy and four years of pharmacy school. Because pharmacists are such a crucial component of health care, obtaining a pharmacy degree today is on par with attending medical school.

HIGH SCHOOL PREP

While still in high school, you should meet with a guidance counselor to ensure that all the required courses are being taken. You might even want to start your application process one year in advance. Visiting a college Web site provides a glimpse at what is required for entry. High school courses that are must-haves include physics, chemistry and biology. "Students should also have a good background in math," says Valencia McClain, coordinator of student affairs at the University of Florida College of Pharmacy.

Adds Sue Bierman, Ph.D. and assistant professor at Butler University, "Take precalculus or calculus. Math aptitude is a good indicator of success in pharmacy." While sciences and math seem natural choices in coursework, college professors also suggest classes that enhance verbal skills. "I think you need to remember that pharmacy is a verbal profession, and you should take courses that bolster verbal communications," advises Paul W. Jungnickel, who is the

associate dean/associate professor at the Harrison School of Pharmacy at Auburn University. Also, any business courses are key because pharmacists today also are expected to comprehend business applications—especially in retail environments.

Years ago, pharmacists did not receive business training. Today, it is an important component of the education process.

Working outside of school is advised. "A student might shadow a pharmacist in their area or volunteer in a health-related field," suggests McClain. Most local health care associations are willing to have potential pharmacy students volunteer.

COLLEGE PREP

Prior to entering a professional school of pharmacy, students are required to complete two to four years of pre-pharmacy course work at the college level. You might want to consider focused studies in math and science courses to sharpen your skills. "There are two phases of pharmacy programs," says Bierman of Butler University. "The first two years of study are in preparation for the professional phase of the pharmacy programs. Students will take university required courses and pharmacy prerequisites." During the sophomore year, she says, students generally apply for entry to the professional phase.



Recent developments suggest that more students are taking a three- or four-year pre-pharmacy program to enhance their performance in pharmacy school. "We are in the process of increasing pre-pharmacy to three years and getting a more science-based curriculum. We are finding that students with three years are better prepared for what they face in pharmacy school," says Jungnickel.

Some schools require that students take the PCAT exam, which is the Pharmacy College Admission Test. This is similar to the MCAT exams taken by potential medical students. Most pharmacy colleges require a minimum

Sample semester

Pharmaceutical Chemistry

Pharmacognosy

Pharmacology

Pharmacy Practices

Pathology

Nutrition

Drug Safety

Business Management

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grade point average during the first two years. The minimum acceptable undergraduate GPA is around the 3.0 mark—or B average.

Although not required, many admissions experts recommend attending pre-pharmacy at the college where the pharmacy education is going to be completed. One admissions director suggested that pre-pharmacy not be done at community or junior colleges, though it remains an option.

PHARMACY SCHOOL

Once in pharmacy school, courses are more specific to the specialty you choose. However, most schools of pharmacy combine required courses with a broad range of professional elective options. For example, a pharmacy student might need 154 core credits and 38 elective credits for a total of 192 credits to obtain a doctorate of pharmacy.

A TYPICAL COURSE LIST COULD INCLUDE:

- Pharmaceutical chemistry
- Pharmacognosy (deals with natural drugs)
- Pharmacology
- Pharmacy practices
- Pathology
- Nutrition
- Drug safety
- Business management

Students also can study issues pertinent to their desired career areas, such as dynamics of patient management, issues in home health care delivery or the biology of aging.

Students intending to enter the retail world can take courses in community practice, which often include internships at local drug stores. Some students might even pursue

courses in niche areas, such as Spanish for health care professionals.

Upon graduation, a license to practice pharmacy is required in all states. To obtain a license, you need to serve an internship under a licensed pharmacist, graduate from an accredited college of pharmacy and pass a state examination.

As of fall 2002, there were 84 colleges and schools of pharmacy with accredited professional degree programs.



U.S. Pharmacy Colleges

- Albany College of Pharmacy
- University of Arizona, College of Pharmacy
- University of Arkansas for Medical Sciences, College of Pharmacy
- Auburn University, School of Pharmacy
- University of Buffalo, School of Pharmacy
- Butler University, College of Pharmacy
- University of California, San Francisco, School of Pharmacy
- University of California, San Diego, School of Pharmacy
- Campbell University, School of Pharmacy
- University of Cincinnati, College of Pharmacy
- University of Colorado, School of Pharmacy
- University of Connecticut, School of Pharmacy
- Creighton University, Nebraska, School of Pharmacy
- Drake University, College of Pharmacy
- Duquesne University, School of Pharmacy
- Ferris State University, College of Pharmacy
- Florida A & M University, College of Pharmacy
- University of Florida, College of Pharmacy
- University of Georgia, College of Pharmacy
- Hampton University, School of Pharmacy
- University of Houston, College of Pharmacy
- Howard University, College of Pharmacy
- Idaho State University, College of Pharmacy
- University of Illinois, College of Pharmacy
- University of Iowa, College of Pharmacy
- University of Kansas, School of Pharmacy
- University of Kentucky, College of Pharmacy
- LECOM, College of Pharmacy
- Long Island University, College of Pharmacy
- University of Maryland, School of Pharmacy
- Massachusetts College of Pharmacy
- Mercer University, School of Pharmacy
- University of Michigan, College of Pharmacy
- Midwestern University, Chicago College of Pharmacy
- Midwestern University, College of Pharmacy - Glendale
- University of Minnesota, College of Pharmacy
- University of Mississippi, School of Pharmacy
- University of Missouri-Kansas City, School of Pharmacy
- University of Montana, School of Pharmacy
- University of Nebraska Medical Center, College of Pharmacy
- Nevada College of Pharmacy
- University of New Mexico, College of Pharmacy
- University of North Carolina, School of Pharmacy
- North Dakota State University, College of Pharmacy
- University of Louisiana at Monroe, College of Pharmacy
- Northeastern University, College of Pharmacy
- Nova Southeastern University, College of Pharmacy
- Ohio Northern University, College of Pharmacy
- Ohio State University, College of Pharmacy
- University of Oklahoma, College of Pharmacy
- Oregon State University, College of Pharmacy
- University of the Pacific, School of Pharmacy
- Palm Beach Atlantic College, School of Pharmacy
- Philadelphia College of Pharmacy
- University of Pittsburgh, School of Pharmacy
- University of Puerto Rico, College of Pharmacy
- Purdue University, School of Pharmacy
- University of Rhode Island, College of Pharmacy
- Rutgers University, College of Pharmacy
- Samford University, School of Pharmacy
- Shenandoah University, School of Pharmacy
- South University, School of Pharmacy
- University of Southern California, School of Pharmacy
- University of South Carolina, College of Pharmacy
- Medical University of South Carolina, College of Pharmacy
- South Dakota State University, College of Pharmacy
- Southwestern Oklahoma State University, School of Pharmacy
- St. John's University, College of Pharmacy
- St. Louis College of Pharmacy
- Temple University, School of Pharmacy
- University of Tennessee, College of Pharmacy
- University of Texas, College of Pharmacy
- Texas Southern University, College of Pharmacy
- Texas Tech University, School of Pharmacy
- University of Toledo, College of Pharmacy
- University of Utah, College of Pharmacy
- Virginia Commonwealth University, School of Pharmacy
- Washington State University, College of Pharmacy
- University of Washington, School of Pharmacy
- Wayne State University, College of Pharmacy
- Western University of Health Sciences, College of Pharmacy
- West Virginia University, School of Pharmacy
- Wilkes University, School of Pharmacy
- Wingate University, School of Pharmacy
- University of Wisconsin, School of Pharmacy
- University of Wyoming, School of Pharmacy
- Xavier University of Louisiana, College of Pharmacy