

# Syracuse University

## College of Arts & Sciences

## Advising and Career Services

### Pharmacy

#### Pharmacy as a Career

Pharmacists dispense medications prescribed by physicians and other health practitioners and monitor patient health. They advise physicians and other health 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, and physical properties. Pharmacists are the medication experts. They protect the public by ensuring drug purity and strength. The goal of pharmacy care is to maximize positive health care outcomes and improve a patient's quality of life with minimum risk. Most pharmacists work in a community setting, such as a retail drug store, or in a hospital or clinic.

#### Pharmacy School

Most pharmacy schools grant the degree of Doctor of Pharmacy (Pharm.D.) which requires at least 6 years of postsecondary education and the passing of the licensure exam of a state board of pharmacy. Most Pharm.D. programs are four years and require at least two years of undergraduate study. There are general courses required for admittance that are similar to medical schools but students should check with specific programs to see what they require. Areas students may want to focus on are mathematics, physics, chemistry, and biology, and include the study specific anatomy and physiology and biochemistry. Other courses recommended are English, psychology and sociology. An increasing number of Pharmacy graduates choose to pursue residency training in pharmacy practice. Programs are offered in hospitals, community pharmacies and some specialized facilities. Residencies may be a requirement of employment in hospitals or clinics.

The goals of degree programs are to graduate students with the skills and abilities to achieve outcomes such as providing pharmaceutical care to patients, developing and managing medication distribution and control systems, managing the pharmacy, promoting public health and providing drug information and education.

#### The General Pre-Pharmacy Curriculum

##### Academic Prerequisites

One Year General Biology & Labs (BIO 121, 123/124)

One Year General Chemistry & Labs (CHE 106/107, 116/117)

One Year Organic Chemistry & Labs (CHE 275/276, 325/326)

One Year Physics & Labs (PHY 101, 102 or PHY 211/221, 212/222)

One Year Calculus (MAT 285, 286 or 295, 296) and One Semester Statistics (MAT 221)

### **Additionally recommended courses**

Genetics (BIO 326)  
Cell Biology (BIO 327)  
Biochemistry (BCM 475)  
Microbiology/Immunology (BIO 409, 447)  
Anatomy/Physiology (BIO 216, 217 or 316,317)  
Psychology (PSY 205, 315, 335, 336, 337, 382)  
Ethics & Bioethics (PHI 593, 594)  
Public Health (HTW 221)  
Nutrition (NSD 225)

### **Nonacademic Prerequisites**

Clinical Experience  
Research  
Leadership  
Community & Public Service  
Letters of Recommendation  
Interviewing Skills

### **Entrance Exam and Application**

#### **Pharmacy College Admission Test (PCAT)**

Students should plan to take the PCAT by the fall of the year prior to their anticipated matriculation year. The PCAT is comprised of five sections with 48 multiple choice questions in each section. There are also two writing sections. Preparation should begin early and should consist of both study/review and practice exams. It is important to note that not all programs may require the PCAT; students should check the admissions requirements for each program to which they are applying.

#### **Pharmacy College Application Service (PharmCAS)**

Students should plan to start their application during the fall one year prior to their anticipated matriculation to pharmacy school and submit their application as soon as their PCAT score becomes available. Deadlines may vary so students should check with the programs regarding those of the primary and supplementary applications if required.

### **Additional Resources**

[American Association of Colleges of Pharmacy \(AACP\)](#)

[Pharmacy College Application Service \(PharmCAS\)](#)

[Pharmacy College Admission Test \(PCAT\)](#)