

PRE-PHARMACY

Introduction

Students interested in a career in Pharmacy have the option of completing a four-year degree in any major along with completing specific prerequisites or completing only two or three years of study before starting pharmacy school, as long as the required courses are taken. Students should stay in contact with the Pre-Medical Center from their first college year for assistance in planning appropriately for entry into pharmacy schools. Most students at Canisius College choose the 4-year option majoring in either Chemistry (Health Professions Track), Biochemistry, or Biology. Majoring in other academic areas is also possible. Further information can be found in the catalog sections for each of those departments. Competitive students generally have a GPA of 3.3-3.5. Students must gain a thorough understanding of the pharmacy profession that includes shadowing or work experience in a pharmacy. Students must also earn competitive scores on the PCAT (Pharmacy College Admissions Test.) In addition to the information in this section, please check the general information at the pre-medical and pre-health section of the catalog (<http://catalog.canisius.edu/undergraduate/academics/curricular-information/pre-professional-programs/pre-medical-pre-health-professions>).

Joint and Early Assurance Programs

Canisius College has seven-year (3+4) joint degree programs with State University of New York at Buffalo School of Pharmacy and Pharmaceutical Sciences and D'Youville College School of Pharmacy, and both six- (3+3, PA campus) and seven-year (3+4, FL campus) joint degree programs with Lake Erie College of Osteopathic Medicine School of Pharmacy. These programs allow students to earn both the bachelor degree from Canisius College and the Doctor of Pharmacy degree from the partner institution. In these programs, students complete the Core Curriculum or the All College Honors Program and three years of the Chemistry Health Track major (courses approved by the chair of the Chemistry Department) or the Biology major (courses approved by the chair of the Biology Department). After the first year of pharmacy school, the bachelor degree is awarded by Canisius. Students also have the option to apply to a wide range of pharmacy schools under the 3+4 program. For more information regarding these programs contact the Pre-Med Advisor.

Recommended Pre-Pharmacy Courses

Academic admission requirements vary substantially by pharmacy school, but usually require the following courses:

English

One year of English composition (ENG 111 & ENG 112, or students who entered Canisius prior to fall 2018 may use FYS 101 and ENG 101) or the Honors Program equivalent (HON 101 and an Honors Literature course).

Biology

At least one year of general biology with laboratory (BIO 111-BIO 112). Most schools also require at least one year of Human Biology; Introduction to Human Anatomy and Physiology and Musculoskeletal Anatomy and Physiology with laboratory (BIO 114-BIO 115). Many programs also require Microbiology with laboratory (BIO 307).

Chemistry

One year of general chemistry and one year of organic chemistry with laboratories:

Code	Title	Credits
CHM 111 & 111L	General Chemistry I and General Chemistry I Laboratory	4
CHM 112 & 112L	General Chemistry II and General Chemistry II Laboratory	4
CHM 227 & 227L	Organic Chemistry I and Organic Chemistry I Laboratory	4
CHM 228 & 228L	Organic Chemistry II and Organic Chemistry II Laboratory	4

Many schools also require Biochemistry (BCH 301 or BIO 211-BIO 212)

Physics

One semester or one year of introductory physics with laboratory:

Code	Title	Credits
Select one of the following:		8
Option 1:		
PHY 201 & 201L	College Physics I and College Physics I Laboratory	
PHY 202 & 202L	College Physics II and College Physics II Laboratory	
Option 2:		
PHY 223 & 223L	General Physics for Physical Science Majors I and General Physics for Physical Science Majors I Laboratory	
PHY 224 & 224L	General Physics for Physical Science Majors II and General Physics for Physical Science Majors I Laboratory	

Check schools of interest for the number of semesters required.

Mathematics

One or two semesters of Calculus (MAT 111 and MAT 112) and one (1) semester of statistics (MAT 141 or PHY 201). Some of the more competitive schools require one year of college level calculus. Chemistry majors MUST take MAT 141.

Humanities and/or Social/Behavioral Science

One to four semesters of psychology, sociology, anthropology, U.S. history, theology and/or philosophy. Some programs specifically require psychology.

Public Speaking

One semester of oral communications (COM 201)

Economics

One semester of macroeconomics (ECO 101) or microeconomics (ECO 102). Some programs specifically require ECO 102.