

# PRE-VETERINARY MEDICINE

## Introduction

Students interested in a career in veterinary medicine may pursue a major along with completing specific prerequisites. Due to the significant biology requirements, most students pursue a major in this field. Veterinary medicine prerequisites vary significantly from school to school. Students should work with the Pre-Health advisor to identify schools of interest and meet appropriate requirements. In addition to specific coursework, Pre-Vet students must gain significant experience with animals and shadow veterinarians extensively as part of their co-curricular experiences. Students are strongly encouraged to participate in the local Vet and Animal Science Explorers Post which is hosted at Canisius. Many schools require a competitive score on the Graduate Record Exam (GRE). 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/>).

## Recommended Pre-Veterinary Courses

Academic admission requirements vary by school, but usually include the following courses. Students should check [current prerequisite courses \(https://admin.applytovetschool.org/wp-content/uploads/2024/04/Prereq-chart-for-VMCAS2025.pdf\)](https://admin.applytovetschool.org/wp-content/uploads/2024/04/Prereq-chart-for-VMCAS2025.pdf) for schools of interest using their individual websites and resources provided by the American Association of Veterinary Colleges (<https://www.aavmc.org/becoming-a-veterinarian/what-to-know-before-you-apply/pre-vet-student-resources/>).

## English

One year of English composition or the Honors Program equivalent:

Code	Title	Credits
Select one of the following:		
Option 1:		
ENG 111	Academic Writing	3
ENG 112	Writing about Literature	3
Option 2:		
HON 101	Honors English	3
and an Honors Literature course		3

## Biology

At least one year of general biology with laboratory is required by all schools. Many schools also require genetics and microbiology.

Code	Title	Credits
BIO 111 & 111L	Introductory Biology I and Introductory Biology Laboratory I	4
BIO 112 & 112L	Introductory Biology II and Introductory Biology Laboratory II	4
BIO 307 & 307L	Microbiology and Microbiology Laboratory	4
BIO 404 & 404L	Genetics and Genetics Laboratory	4

## 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

## Biochemistry

Students should work with the Pre-Health advisor regarding specific biochemistry requirements, including number of credits, lab, and organic chemistry prerequisite requirements. Students may take biochemistry in either the Biology Department (BIO 211-BIO 212) or the Chemistry and Biochemistry Department (BCH 301-BCH 302). Note that BIO 211-BIO 212 meet both the biochemistry and cell biology requirements for some schools. For schools that require biochemistry to have organic chemistry as a prerequisite, students taking BIO 211-BIO 212 must also take BIO 430. BCH 301-BCH 302 meet this requirement. BCH 302 may not be required for all schools.

Code	Title	Credits
Select one of the following:		
Option 1:		
BIO 211 & BIO 212L	Biochemistry and Cell Biology I and Biochemistry and Cell Biology Lab II	4
BIO 212 & 212L	Biochemistry and Cell Biology II and Biochemistry and Cell Biology Lab II	4
Option 2:		
BCH 301 & 301L	Introduction to Biochemistry and Introduction to Biochemistry Laboratory	4
BCH 302	Cellular Biochemistry	3

## Physics

One year of introductory physics with laboratory. A student's major may dictate the option they should select:

Code	Title	Credits
Select one of the following:		
Option 1:		
PHY 201 & 201L	College Physics I and College Physics I Laboratory	4
PHY 202 & 202L	College Physics II and College Physics II Laboratory	4
Option 2:		
PHY 223 & 223L	General Physics for Physical Science Majors I and General Physics for Physical Science Majors I Laboratory	4
PHY 224 & 224L	General Physics for Physical Science Majors II and General Physics for Physical Science Majors I Laboratory	4

## Mathematics

One semester of statistics (MAT 141 or PSY 201) is required. Some veterinary schools require more math such as calculus (MAT 111). One semester of calculus is also recommended as a prerequisite for physics.

Code	Title	Credits
Calculus		
MAT 111	Calculus I	4
Statistics		
MAT 141	Inferential Statistics and Computers for Science	4
		or
		3
or PSY 102	Introduction to Psychology II	

## Additional Pre-Vet Courses

Coursework in animal behavior or anthrozoology are encouraged. (ABEC 101) or (ANZ 101) are good introductions to these disciplines. Some schools require additional science coursework. Please check with the Pre-Health advisor for assistance selecting courses. The [AAVMC Prerequisite Chart \(https://admin.applytovetschool.org/wp-content/uploads/2024/04/Prereq-chart-for-VMCAS2025.pdf\)](https://admin.applytovetschool.org/wp-content/uploads/2024/04/Prereq-chart-for-VMCAS2025.pdf) is a useful resource. It is important to refer directly to each individual school's website for the most up-to-date information.

## Elective Courses

HRP 101 allows students to explore different health professions.

HRP 111 introduces students to medical terminology.

HRP 201 and HRP 202 allow students to explore areas of medicine in more depth.

HRP 498 is an internship in medical informatics. A medical scribe internship is also available.

HRP 498A is a medical and veterinary medical service learning trip.