

Pre Dentistry, Pre Medicine, Pre Physician Assistant, and Pre Veterinary Medicine

Health Careers Advisory Committee

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Students should declare the appropriate Pre-professional **interest track**, through the "Forms" tab on the Registrar's Office main page. Students with these declared interest tracks will be assigned to a member of this committee to assist in planning their program of study as their **secondary advisor**. They will also be automatically enrolled in the Pre-professional Programs group in Canvas, which will provide resources and communication about upcoming events, opportunities, and deadlines.

The admission requirements vary slightly among the various schools and programs. For specific information students should review the websites of the medical, dental, and veterinary medical schools to which they are interested in applying. Other sources of information are current volumes of Medical School Admission Requirements and Admission Requirements of American Dental Schools.

Most professional training programs require a core of courses ("prerequisites") that must be completed before admission. They can be successfully incorporated into almost any major. The choice of major does not significantly affect the student's probability of admission to a given professional graduate school. Students should give consideration to any major that they find

interesting and in which they excel. Nearly all professional schools require completion of a bachelor's degree.

The achievement of outstanding academic credentials should not be accomplished at the expense of sacrificing extracurricular activities. Professional programs prefer students who have actively pursued their interests, especially in the areas of leadership, service to under-served populations, and clinical or health-related experiences. (Physician assistant and veterinary medicine schools require specified hours of clinical care experiences for competitive application.)

In addition to course work, virtually all professional schools require some form of standardized test prior to consideration of a student's admission application. These tests are usually taken in the spring before application is made in early summer. Medical schools require the Medical College Admission Test (MCAT), dental schools the Dental Admission Test (DAT), and veterinary medicine schools and physician assistant schools the Graduate Record Examination (GRE) Aptitude Test.

Applications to professional schools are made a year before expected matriculation, usually between **June and October**. This means that the course work included on the standardized entrance test must be completed by the end of the **junior year** of college in order to move straight from college to professional schools the following August without a "gap" year. With this being said, students should be aware that completing requirements to apply after the **senior** year would allow them to spread out the required courses, pursue minors or second majors, or study abroad, which may increase the success of students in admissions to professional schools. In the application year, early application to professional schools (**by August 1**) is strongly recommended, as interviews and acceptances go first to the earliest applicants. (Physician assistant schools start in either August *or* January, so their application cycle begins in April.)

Professional school applications are made directly to Centralized Application Services for each type of graduate program. The American Medical College Application Service (AMCAS) is the agent for allopathic medical schools, the American Association of Dental Schools Application Service (AADSAS) is the agent for many dental schools, the American Association of Colleges of Osteopathic Medicine (AACOMAS) is the agent for osteopathic medical schools, the Central Application Service for Physician Assistants (CASPA) is the agent for physician assistant schools and the Veterinary Medical College Application Service (VMCAS) is the agent for most veterinary medical schools. Application information is available from those services directly and through the Canvas Pre-professional Programs group resources. Medical, dental, PA and vet schools not subscribing to the centralized application service must be contacted individually.

Students interested in other post college health careers such as **Optometry, Podiatric Medicine, Chiropractic Medicine, Genetic Counseling**, etc. are encouraged to declare a *Pre-medicine* interest track as well, to have access to the resources and Health Careers Advisory Committee for assistance in planning their programs of study.

Pre-medicine recommended courses:

Allopathic and osteopathic medical schools generally require the categories below.

Course List

Code	Title	Credit Hours
	Biology with Laboratory	12
BIO 111	Principles of Biology I	
BIO 111L	Principles of Biology I Laboratory	
BIO 112	Principles of Biology II	
BIO 112L	Principles of Biology II Laboratory	
BIO 277	Human Physiology	
BIO 277L	Human Physiology Laboratory	
	General Chemistry with Laboratory	8
CHE 111	General Chemistry I	
CHE 112	General Chemistry I Laboratory	
CHE 114	General Chemistry II	
CHE 115	General Chemistry II Laboratory	
	Organic Chemistry with Laboratory	8
CHE 351	Organic Chemistry I	
CHE 352	Organic Chemistry II	
CHE 354	Organic Chemistry Laboratory	
	Biochemistry	3-6
	Select one option of the following:	
	Option A	
CHE 420	Chemical Principles of Biochemistry	

Course List

Code	Title	Credit Hours
Option B		
CHE 456	Biochemistry I	
CHE 457	Biochemistry II	
Option C		
BIO 435	Biochemistry: Metabolic Regulation in Health and Disease	

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Physics with Laboratory

Select one option of the following:

Option A

PHY 211	General Physics I
PHY 211L	General Physics Lab I
PHY 212	General Physics II
PHY 212L	General Physics Lab II

Option B

PHY 291	General Physics I with Calculus
PHY 291L	General Physics I with Calculus Lab
PHY 292	General Physics II with Calculus
PHY 292L	General Physics II with Calculus Lab

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Mathematics

Nearly all require statistics.

STA 108	Elementary Introduction to Probability and Statistics
or STA 271	Fundamental Concepts of Statistics

Course List

Code	Title	Credit Hours
	College Writing	6
ENG 101	College Writing I	
ENG 102	College Writing II	
	Behavioral Sciences	9
PSY 121	General Psychology	
SOC 101	Introduction to Sociology	
	One additional Social or Behavioral Science	

Other courses that are recommended include those detailed below.

Course List

Code	Title	Credit Hours
	Cell Biology and Genetics	6
BIO 355	Cell Biology	
BIO 392	Genetics	
	Histology with Laboratory	4
BIO 472	Histology	

Pre-dental recommended courses:

Dental schools require these same courses with the following additions:

	Biology with Laboratory	8
BIO 280	Fundamentals of Microbiology	
BIO 280L	Fundamentals of Microbiology Lab	
BIO 271	Human Anatomy	
BIO 271L	Human Anatomy Laboratory	

Pre-Physician Assistant recommended courses:

Physician assistant programs are more variable in requirements than medical schools. While still requiring the same Biology and Chemistry courses as medical and dental schools, they typically **do not require Physics courses**, but require these additional courses:

BIOLOGY

BIO 392	Genetics	3
BIO 280	Fundamentals of Microbiology	3
BIO 280L	Fundamentals of Microbiology Lab	1
BIO 271	Human Anatomy	3
BIO 271L	Human Anatomy Laboratory	1

Medical Terminology 3

[HEA 113](#) Medical Terminology

Pre-Veterinary medicine recommended courses:

Veterinary school course requirements are considerably more extensive than those for medical or dental schools. In addition to specifying all of the above courses in mathematics, chemistry, and biology, these programs typically require or recommend more courses in **animal science, general microbiology, animal nutrition, and possibly some business courses**. Several hundred hours of work experience with animals or in a veterinarian's practice is required. Students interested in veterinary school should make contact with the school and with the advisory committee at an early stage of their undergraduate careers, to discuss how to meet these requirements.