

# 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** by using the form provided on our SpartanConnect website (<https://spartancentral.uncg.edu/forms/pre-professional-interest-tracks/>). 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 (ORG) 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 underserved 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.

Code	Title	Credit Hours
<b>Biology with Laboratory</b>		<b>12</b>
BIO 111 & 111L	Principles of Biology I and Principles of Biology I Laboratory	
BIO 112 & 112L	Principles of Biology II and Principles of Biology II Laboratory	
BIO 277 & 277L	Human Physiology and Human Physiology Laboratory	
<b>General Chemistry with Laboratory</b>		<b>8</b>

CHE 111 & CHE 112	General Chemistry I and General Chemistry I Laboratory	
CHE 114 & CHE 115	General Chemistry II and General Chemistry II Laboratory	
<b>Organic Chemistry with Laboratory</b>		<b>8</b>
CHE 351	Organic Chemistry I	
CHE 352	Organic Chemistry II	
CHE 354	Organic Chemistry Laboratory	
<b>Biochemistry</b>		<b>3-6</b>
<i>Select one option of the following:</i>		
Option A		
CHE 420	Chemical Principles of Biochemistry	
Option B		
CHE 556	Biochemistry I	
CHE 557	Biochemistry II	
Option C		
BIO 435	Biochemistry: Metabolic Regulation in Health and Disease	
<b>Physics with Laboratory</b>		<b>8</b>
<i>Select one option of the following:</i>		
Option A		
PHY 211 & 211L	General Physics I and General Physics Lab I	
PHY 212 & 212L	General Physics II and General Physics Lab II	
Option B		
PHY 291 & 291L	General Physics I with Calculus and General Physics I with Calculus Lab	
PHY 292 & 292L	General Physics II with Calculus and General Physics II with Calculus Lab	
<b>Mathematics*</b>		<b>6</b>
MAT 184	Calculus for the Life Sciences	
MAT 196	Calculus A	
STA 108	Elementary Introduction to Probability and Statistics	
or STA 271	Fundamental Concepts of Statistics	
<b>College Writing</b>		<b>6</b>
ENG 101	Exploring Writing in College Contexts	
ENG 102	Academic Research and Writing	
<b>Behavioral Sciences</b>		<b>6</b>
PSY 121	General Psychology	
SOC 101	Introduction to Sociology	

\* A few schools require mathematics through calculus, while nearly all require statistics.

**Other courses that may be required include those detailed below.**

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

## Pre Dentistry Recommended Courses

Dental school preparatory course requirements are usually much like those for medical school; however, they may also require anatomy in addition to the classes listed above.

Code	Title	Credit Hours
<b>Anatomy with Laboratory</b>		
BIO 271 & 271L	Human Anatomy and Human Anatomy Laboratory	
<b>Microbiology with Laboratory (some)</b>		
BIO 280 & 280L	Fundamentals of Microbiology and Fundamentals of Microbiology Laboratory	
BIO 481 & 481L	General Microbiology and General Microbiology 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 add courses in **Anatomy, Microbiology, Genetics, and 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.