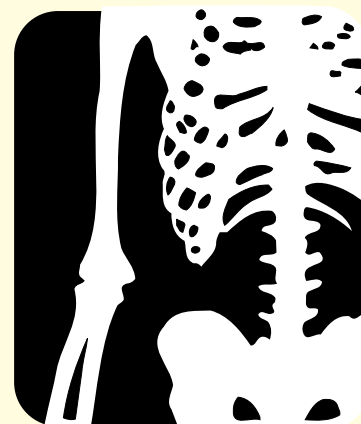


PREMEDICAL PROGRAM



Undergraduate Major

Students planning to attend medical, dental, pharmacy, veterinary, or optometry school are not required to complete a prescribed undergraduate major. In general, a majority of the students applying to these professional schools major in biological sciences or chemistry. However, the most important criterion in selecting a major is that you have a real interest in the field. The pre-health professional prerequisites can be incorporated into many majors, and students usually do best in the classes they enjoy. A major of your choice will also allow you to investigate possible career alternatives.

There are areas of required preparation which must be completed before applying to professional schools. The recommended core curriculum for medical-related professional schools is listed below. Additional preparation for each of the professional schools is included in subsequent sections; specific requirements may differ from one school to another. It is strongly recommended that students interested in these professional schools contact one of the following advisors to assist in planning their programs, applying to professional schools, and gaining first-hand experience in a prospective field of study.

Note: Although students can be admitted to professional schools after completing 90 units, a bachelors degree is recommended.

Dan Decious, <i>Chemistry</i>	SCI-510, 278-7016
Juanita Barrera, <i>Biological Sciences</i>	BIO-211D, 278-6258
Richard Fish, <i>Chemistry</i>	SCI-420A, 278-6189
Dennis Huff, <i>Biological Sciences</i>	BIO-211E, 278-6152
Yuh Lin Hwang, <i>Biological Sciences</i>	SCI-528, 278-6883
Melanie Loo, <i>Biological Sciences</i>	SCI-414, 278-6573
Mary Ann Reihman, <i>Biological Sciences</i>	BIO-112, 278-6571
Charles Moser, <i>Biological Sciences</i>	SCI-214, 278-6707
James Ritchey, <i>Chemistry</i>	SCI-538C, 278-6006
Gary Shoemaker, <i>Physics</i>	SCI-410, 278-7354

Core Curriculum

Courses in parentheses are prerequisites.

The following courses should be taken by all students who plan to attend a medically related professional school, regardless of major; 35 total units.

- (3) BIO 10 Basic Biological Concepts
- (4) BIO 11 Animal Biology (BIO 10)

- (4) BIO 12 Plant Biology (BIO 10)
- (5) CHEM 1A General Chemistry (high school algebra (two years) and high school chemistry; or equivalent)
- (5) CHEM 1B General Chemistry (CHEM 1A)
- (3) ENGL 1A College Composition (EPT score of 151 or above, or completion of ENGL 1)
- (3) ENGL 1B College Reading & Writing, or other equivalent course (ENGL 1A)
- (4) PHYS 5A General Physics: Mechanics, Heat, Sound (recently completed three years of high school math.
- (4) PHYS 5B General Physics: Light Electricity & Magnetism, Modern Physics (PHYS 5A or permission of instructor)

Note: A course in psychology, business, and/or humanities is also strongly recommended by many schools.

Medical Schools

Applicants do *not* need a 4.0 GPA to get into medical school. However, most students accepted have GPA's above 3.3. A GPA is an impersonal reflection of your ability to handle university work and is an important part of your application. However, a successful applicant must be able to offer more than a good GPA. The attributes of motivation, social concern, communication skills and maturity are also important characteristics.

Applicants must take the Medical College Admissions Test (MCAT). Given twice a year, once in the Spring and once in the Fall, the test should be taken after completing the core curriculum and the organic chemistry courses listed below. This generally will be in the Spring of the junior year or at the latest, in the Fall of the senior year. Allow at least 10 months between taking the exam and the date of planned matriculation.

In addition to the core curriculum, medical school applicants should also take the following courses: 15-17 total units:

- (3) CHEM 24 Organic Chemistry Lecture I (CHEM 1B)
- (3) CHEM 124 Organic Chemistry Lecture II (CHEM 24 or permission of instructor. Concurrent enrollment in CHEM 25 recommended)
- (3) CHEM 25 Organic Chemistry Lab I (CHEM 20 or 24 and 124; CHEM 124 may be taken concurrently.)

- (3-4) MATH 26A Calculus for Social & Life Sciences (MATH 11 or three years of high school math which includes two years of algebra and one year of geometry; completion of ELM) requirement and the Intermediate Algebra diagnostic test) **OR**
 MATH 30 Calculus I (MATH 29 or four years of high school math which includes two years of algebra, one year of geometry, and one year of mathematical analysis; completion of ELM requirement and Precalculus diagnostic test)
 (3-4) MATH 26B Calculus for Social & Life Sciences (MATH 26A) **OR**
 MATH 31 Calculus II (MATH 30)

It should be noted that there are some variations in medical school admission requirements. For example, some schools also require or recommend courses in embryology, genetics, biochemistry, quantitative analysis, physical chemistry, and/or one year of a foreign language. For information on requirements for specific schools, contact your pre-med advisor.

Dental Schools

Applicants to dental schools should have at least a 3.0 GPA. The Dental Aptitude Test (DAT), which is given once in the Spring and once in the Fall, should be taken at least 10 months prior to matriculation. In addition to the core curriculum above, dental school applicants should also take the following courses; 12-15 total units:

- (3-6) CHEM 20 Organic Chemistry Lecture-Brief Course **OR**
 CHEM 24 Organic Chemistry Lecture I **and**
 CHEM 124 Organic Chemistry Lecture II
 (3) CHEM 25 Organic Chemistry Lab I (CHEM 20 or 24, and 124; CHEM 124 may be taken concurrently)
 (3) CHEM 161 General Biochemistry (CHEM 20 or 124; one year of biological science is desirable)
 (3) PSYC 1 Introductory Psychology: Basic Processes

Pharmacy Schools

Applicants are expected to have a GPA of 3.0 or higher. Some schools require the Pharmacy College Admission Test (PCAT); check with your pre-health advisor for information on specific schools. In addition to the core curriculum, the following courses should be taken; 23-25 total units:

- (4) BIO 139 General Microbiology (BIO 10, 11, 12 or 22 and CHEM 20 or 6B)
 (4) CHEM 31 Inorganic Quantitative Analysis (CHEM 1B)
 (3) CHEM 24 Organic Chemistry Lecture I (CHEM 1B)
 (3) CHEM 124 Organic Chemistry Lecture II (CHEM 24 or permission of instructor. Concurrent enrollment in CHEM 25 recommended)
 (3) CHEM 25 Organic Chemistry Lab I (CHEM 20 or 24 and 124. CHEM 124 may be taken concurrently)

- (6-8) MATH 26A Calculus I for Social & Life Sciences (MATH 11 or three years of high school math which includes two years of algebra and one year of geometry; completion of ELM requirement and the Intermediate Algebra diagnostic test) **AND**
 MATH 26B Calculus II for Social & Life Sciences (MATH 26A) **OR**
 MATH 30 Calculus I (MATH 29 or four years of high school math which includes two years of algebra, one year of geometry, and one year of mathematical analysis; completion of ELM requirement and Precalculus diagnostic test) **AND**
 MATH 31 Calculus II (MATH 30)

Some pharmacy schools require specific courses in the Social Sciences and Humanities; check with your pre-health advisor for requirements for specific schools.

Veterinary Schools

It is becoming less difficult to gain admission to any U.S. veterinary school without being a resident of the state in which the school is located. However, residents of California most often attend the School of Veterinary Medicine at University of California, Davis. Applicants should have a GPA of at least 2.5; students are rarely admitted with GPA's below 3.0. Applicants to the UCD Vet. School must take the Graduate Record Examination General Aptitude Section and Advanced Test in Biology, and should have formal experience working with animals. In addition to the core curriculum above, students planning to attend the School of Veterinary Medicine at University of California, Davis should also take the following courses; 23-26 total units:

- (4) BIO 127 Vertebrate Embryology (BIO 11 or equivalent)
 (4) BIO 131 Systemic Physiology (BIO 10, 20, or 22, and one year of college chemistry)
 (3) BIO 184 General Genetics (BIO 11, 12, 139)
 (3-6) CHEM 20 Organic Chemistry Lecture-Brief Course **OR**
 CHEM 24 Organic Chemistry Lecture I **and**
 CHEM 124 Organic Chemistry Lecture II
 (3) CHEM 25 Organic Chemistry Lab I (CHEM 20 or 24, and 124; CHEM 124 may be taken concurrently)
 (3) CHEM 161 General Biochemistry (CHEM 20 or 124; one year of biological science is desirable)
 (3) STAT 1 Introduction to Statistics (MATH 9 or three years of high school math).

Note: Although calculus is not required, most applicants to UC Davis Veterinary School have taken calculus.

Optometry Schools

Applicants to optometry schools should have a GPA of at least 2.5; however, a more realistic GPA is 3.0. Applicants must take the Optometry College Admissions Test (OCAT)

by January of the year they plan to enter optometry school. In addition to the core curriculum above, optometry school applicants should also take the following courses; 23-24 total units:

- (4) BIO 131 Systemic Physiology (10, 20, or 22 and one year of college chemistry)
- (4) BIO 139 General Microbiology (BIO 10, 11, 12, and CHEM 20 or 6B)
- (3) CHEM 20 Organic Chemistry Lecture — Brief Course (CHEM 1B)
- (3) CHEM 25 Organic Chemistry Lab I (CHEM 20 or 24 and 124. CHEM 124 may be taken concurrently)
- (3) PSYC 1 Introductory Psychology: Basic Processes
- (3-4) MATH 26A Calculus for Social & Life Sciences (MATH 11 or three years of high school math which includes two years of algebra and one year of geometry; completion of ELM requirement and the Intermediate Algebra diagnostic test)
- (3) STAT I Introduction to Statistics (MATH 9 or three years of high school math)

Osteopathy Schools

Osteopaths (D.O.'s) are gaining wider acceptance as physicians and are licensed in California to prescribe drugs and perform surgeries like M.D.'s. They differ from M.D.'s primarily in their healing philosophy, which emphasizes nutritional and manipulative therapies. Students may be admitted to osteopathy schools after completing 90 units, but most have received a baccalaureate degree. Applicants should have a GPA of at least 2.5, must take the MCAT, and must have some experience with a practicing doctor of osteopathy. In addition to the core curriculum above, osteopath school applicants should also take the following courses; 15 total units:

- (3) CHEM 24 Organic Chemistry Lecture I (CHEM 1B)
- (3) CHEM 124 Organic Chemistry Lecture II (CHEM 24 or permission of instructor. Concurrent enrollment in CHEM 25 recommended)
- (3) CHEM 25 Organic Chemistry Lab I (CHEM 20 or 24 and 124. CHEM 124 may be taken concurrently)
- (6) Behavioral Sciences