

# CERRITOS COLLEGE

## PRE-MEDICAL CAREER PATHWAY

*The following curriculum does not lead to an Associate in Arts Degree in Pre-Medical. However, students may fulfill requirements for a Natural Sciences Degree by completing a minimum of 18 units of science and math courses to include at least 4 units in the Physical Sciences, at least 4 units in the Biological Sciences, and at least 3 units in a math course beyond Intermediate Algebra. Please refer to the Cerritos College catalog for more information.*

Admission to medical school is highly competitive, therefore a student should carefully consider their motivation, preparation and commitment for a career in medicine. Admittance is usually based primarily on the candidate's academic achievement in a college program and performance on the Medical College Admission Test (MCAT). Educational philosophies and goals, specific undergraduate course requirements, academic commitment beyond required course work, honors, extracurricular activities, leadership, application, essay, research, clinical experience, community service, volunteerism, and other qualifications for admission vary among the nation's medical schools. However, they all stress the importance of a strong foundation in the natural sciences (Biology, Chemistry, Mathematics and Physics.), highly developed competence in English communication skills, both written and spoken; capacity for quantitative thinking, represented by mastery of mathematics, and the scientific method; a foundation for an ever-increasing insight into human behavior, thought and aspiration, through study of man and his society, as revealed by a breadth of social sciences, fine arts and humanities. Knowledge of a modern foreign language, specifically Spanish is strongly recommended. Medicine is a strongly collaborative endeavor, therefore teamwork skills experience is a must. Computer literacy is now very necessary for almost all medical schools. Many schools recommend computer science courses and require entering students to have a computer.

Medical schools do not require you to major in a particular field. It is possible to major in any one of a large number of disciplines, integrating the course requirements for medical school. In choosing an undergraduate major the student should give careful consideration to select a major area of study that interests them and that will provide a foundation necessary for the pursuit of an alternative career, if necessary. "Pre-Med" is not a major at the University for an Undergraduate Degree. While many successful applicants major in one of the natural sciences, a science major is **NOT** required for admission to medical school. Note: MCAT must be taken within 3 years of admission to Medical School.

### COMMON COURSE REQUIREMENTS FOR MOST MEDICAL SCHOOLS

			<b>UNITS</b>
BIOL	200	Principles of Biology	5
BIOL	201	Principles of Biology	5
CHEM	111	General Chemistry	5
CHEM	112	General Chemistry	5
CHEM	211	Organic Chemistry	5
CHEM	212	Organic Chemistry	5
ENGL	100	Freshman Composition	4
Or ENGL	100S	Enhanced Freshman Composition	(4.5)
ENGL	102	Freshman Composition & Literature	3
<i>or</i> ENGL	103*	Critical and Argumentative Writing	(3)
PHYS	101	General Physics	4
<i>or</i> PHYS	201	Engineering Physics	(4)
PHYS	102	General Physics	4
<i>or</i> PHYS	202	Engineering Physics	(4)

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## \* For other options see a counselor

Community college Pre-Med students who plan to transfer to a university need to complete the general education required of the transfer institution, complete the requirements of the undergraduate major and may complete the courses required by the medical school.

**MATHEMATICS:** Trends in medical education require the medical student to be adequately trained in mathematics. Almost all schools recommend one year of college level mathematics. Since calculus is recommended in several medical schools, and in some instances *required*, it is advantageous to complete one year of calculus or at least one semester of calculus. The second semester course may be math statistics or computer science, depending on the specific medical school requirement. Your undergraduate major will help further define your choice of mathematics requirements.

**ELECTIVES:** Additional science course work in Biochemistry, Cellular Biology, Genetics, Molecular Biology, Anatomy and upper division Biological Science courses is considered part of the academic commitment beyond the minimum required course work. Other courses for consideration include: immunology, histology, microbiology, social sciences, humanities, speech, psychology and Spanish is strongly recommended and computer literacy is mandatory.

For more information concerning the above listed requirements at individual schools look up the specific medical school website. Each school's specific requirements are detailed in the MSAR. The following are ten from a multitude of medical school websites:

*Harvard Medical School*  
[www.hms.harvard.edu](http://www.hms.harvard.edu)

*Johns Hopkins University School of Medicine*  
[https://www.hopkinsmedicine.org/som/admissions/md/application\\_process/prerequisites\\_requirements.html](https://www.hopkinsmedicine.org/som/admissions/md/application_process/prerequisites_requirements.html)

*Loma Linda University School of Medicine*  
<http://medicine.llu.edu>

*Stanford School of Medicine*  
<http://med.stanford.edu/md-admissions.html>

*UC Davis School of Medicine*  
[www.ucdmc.ucdavis.edu/medschool](http://www.ucdmc.ucdavis.edu/medschool)

*UC Irvine School of Medicine*  
[www.som.uci.edu](http://www.som.uci.edu)

*UCLA David Geffen School of Medicine*  
<https://medschool.ucla.edu/>

*UC San Diego School of Medicine*  
<http://medicine.ucsd.edu>

*UCSF School of Medicine*  
<http://medschool.ucsf.edu>

*USC Keck School of Medicine*  
<http://keck.usc.edu>

*Association of American Medical Colleges Office of Admissions (AMCAS)*  
<https://www.aamc.org/students/applying/amcas/>

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For further programming and more detailed information about specific medical school programs and requirements you are encouraged to consult The Medical School Admission Requirements (MSAR), published annually and online by the Association of American Medical Colleges. It is an excellent resource book to help students approach their goals. Copies may be purchased via the Association of American Medical Colleges (AAMC) website: [www.aamc.org](http://www.aamc.org). Another recommended website you may want to consider is The Princeton Online Review ([www.princetonreview.com](http://www.princetonreview.com)) which provides comprehensive information for researching the complexities of medical school admissions.

## **THE REQUIREMENTS FOR MEDICAL SCHOOL ARE SUBJECT TO CHANGE WITHOUT NOTICE. CAREER OPPORTUNITIES:**

Overall employment of physicians and surgeons is projected to grow 3 percent from 2020 to 2030, slower than the average for all occupations.

Despite limited employment growth, about 22,700 openings for physicians and surgeons are projected each year, on average, over the decade. Most of those openings are expected to result from the need to replace workers who transfer to different occupations or exit the labor force, such as to retire (Occupational Outlook Handbook, 2022).

The growing and aging population is expected to drive overall growth in the demand for physician services. As rates of chronic illnesses increase, consumers will seek high levels of care that use the latest technologies, diagnostic tests, and therapies.

Demand for most types of physicians and surgeons is expected to increase despite factors that may temper growth. New technologies, such as for remote monitoring, are expected to allow physicians to treat more patients in the same amount of time. As they become more widely adopted, these technologies may reduce the number of physicians needed to complete the same tasks. In addition, physician assistants and nurse practitioners can do many of the routine duties of physicians and may be used to reduce costs at hospitals and doctor's offices.

Growing demand for psychiatric care and improved access to mental health services will contribute to demand for psychiatrists. Demand for physicians' services is sensitive to change in healthcare reimbursement policies. Consumers may seek fewer physician services if changes to health coverage result in higher out-of-pocket costs for them.

**IMPORTANT NOTICE:** The requirements listed for major are subject to change without notice. It is the student's responsibility to check for the most recent information with a Cerritos College counselor or by consulting ASSIST at [www.assist.org](http://www.assist.org).

**NOTE:** Courses listed may require prerequisite coursework.

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