

Pre-Medical/Pre-Allied Health

(with a major in Biology)

Medicine, dentistry, veterinary medicine, pharmacy, physical therapy, and optometry are among the many fields students can prepare for at CSUB. The University offers course work to meet the requirements of medical and other professional schools while providing a liberal arts education.

Most professional schools require a bachelor's degree for admission. Competition for admission is severe, and students are advised to plan a program of study leading to a baccalaureate degree should admission be denied. Most students obtain a science degree, but other majors are also accepted provided required courses have been taken. Typically, mathematics and computers (one year), physics (one year), chemistry (two years), and biology (two years) are required.

Small class size and individual attention are additional benefits Pre-Medical/Pre-Allied Health students enjoy while attending CSUB.

Interested students are encouraged to contact the Department of Biology for further information or to make an appointment with a faculty advisor.

Recommended Courses

This program is designed to provide the basic courses to meet entrance requirements for post-baccalaureate study in medicine, dentistry, veterinary medicine, pharmacy, chiropractic, and physical therapy while completing the B.S. degree in Biology.

1. A minimum of 65 units in Biology:

- A. The following courses:
- BIOL 201 Intro Biology-Cell
 - BIOL 202 Intro Biology-Animals
 - BIOL 203 Intro Biology-Plants
 - BIOL 301 Research Design & Analysis
 - BIOL 304 General Genetics
 - BIOL 305 General Physiology
 - BIOL 306 General Ecology
 - BIOL 470 Evolution
 - BIOL 490 Senior Seminar
- B. Twenty-five (25) units from the following **suggested** list (at least one must be 400 level and two must have a lab).
- BIOL 312 General Microbiology
 - BIOL 330 Molecular Genetics
 - BIOL 342 Cell Physiology
 - BIOL 351 Comparative Vertebrate Anatomy
 - BIOL 355 Human Pathophysiology
 - BIOL 357 Human Physiology
 - BIOL 414 Medical Microbiology
 - BIOL 424 Evolutionary Genetics
 - BIOL 430 Advanced Molecular Genetics
 - BIOL 433 Developmental Biology
 - BIOL 451 Functional Analysis of Vertebrate Structure
 - BIOL 455 Physiological Measurements

2. The following Chemistry courses:

- CHEM 211 Principles of General Chemistry I
- CHEM 212 Principles of General Chemistry II
- CHEM 213 Principles of General Chemistry III
- CHEM 331 Concepts of Organic Chemistry I
- CHEM 332 Concepts of Organic Chemistry II &
- CHEM 333 Concepts of Organic Chemistry III
- CHEM 340 Biochemistry

3. The following Physics courses:

- PHYS 201 Newtonian Physics &
- PHYS 202 Maxwellian Physics &
- PHYS 203 Contemporary Physics **OR**
- PHYS 221 Classical Physics I &
- PHYS 222 Classical Physics II &
- PHYS 223 Optics & Modern Physics

4. The following Mathematics courses:

- MATH 190/191 College Algebra
- MATH 192 Trigonometric Functions
- MATH 201 Calculus I &
- MATH 202 Calculus II **OR**
- MATH 211 Calculus for Life Sciences and Medicine &
- MATH 212 Calculus II for Life Sciences

5. Chiropractic & Physical Therapy require:

- BIOL 250 Human Anatomy
- BIOL 255/256 Human Physiology **OR**
- BIOL 357 Human Physiology
- PSYC 315 Abnormal Psychology



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