

Pre-Medical/Pre-Allied Health

Major in Chemistry with a Concentration in Biochemistry

Medicine, dentistry, veterinary medicine, and pharmacy 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.

Other career possibilities include:

physical therapy, clinical laboratory sciences, optometry, and physician's assistant.

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 (one year), physics (one year), chemistry (two years), and biology (one year) are the minimum requirements. The MCAT Examination (or similar test) is typically taken before the senior year; all courses shown in italics should be completed before then.

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 Chemistry 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, pharmacology, chiropractic, and physical therapy while completing the B.S. degree in Chemistry.

1. A minimum of 56 units in Chemistry:

CHEM 211 Chemistry Principles I
CHEM 212 Chemistry Principles II
CHEM 213 Chemical Principles III
CHEM 331 Organic Chemistry I
CHEM 332 Organic Chemistry II
CHEM 333 Organic Chemistry III
CHEM 340 Biochemistry
CHEM 440 Advanced Biochemistry
CHEM 355 Biophysical Chemistry
CHEM 390 Chemical Literature
CHEM 490 Senior Seminar

2. Two Biology courses from:

BIOL 201 Intro Biology-Cell
BIOL 202 Intro Biology-Animals
OR
BIOL 203 Intro Biology-Plants

3. Additional 13 units (three courses) of upper division course work selected from Chemistry and/or Biology.

4. 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

5. The following Mathematics courses:

MATH 201 Calculus I
MATH 202 Calculus II
OR
MATH 211 Calculus I for Life Sci.
MATH 212 Calculus II for Life Sci.

6. Chiropractic & Physical Therapy require:

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

7. Pharmacy Schools require:

CHEM 350 Quantitative Analysis

The courses listed under 6 can be used to fulfill requirement 3. Many medical schools also require at least one biochemistry course. Biochemistry is also a subject area taught at all medical schools during the first year.

For more information, please contact:

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