

## BIOLOGY



### 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.

#### Contact Us

Phone (661) 654-3089  
Email [biology@csub.edu](mailto:biology@csub.edu)  
Web [www.csub.edu/biology](http://www.csub.edu/biology)  
Office Science I, Room 114

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.

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.

#### Recommended Courses

##### 1. Biology Courses

a. The following courses:

###### Lower Division Core:

BIOL 2010 Intro Biology-Cell  
BIOL 2110 Intro Biology-Animals  
BIOL 2120 Intro Biology-Plants

###### Upper Division Core:

BIOL 3120 Research Design & Analysis  
BIOL 3010 General Genetics  
BIOL 3020 General Physiology  
BIOL 3110 General Ecology  
BIOL 4100 Evolution  
BIOL 4910 Senior Seminar

##### b. Upper Division Electives

At least 20 units of additional upper division elective coursework in Biology. At least three courses must be four units with lab and at least one must be a laboratory course at the 4000-level. Four units selected from the following may be substituted for an elective: CHEM 3400 & 3401 or 4400 & 4401 (only one combination may be substituted), or other by advisor's approval.

###### Suggested Courses:

BIOL 3410 General Microbiology  
BIOL 4440 Molecular Genetics  
BIOL 4510 Comparative Vertebrate Anatomy  
BIOL 3220 Human Pathophysiology  
BIOL 3550 Human Physiology  
BIOL 4200 Medical Microbiology  
BIOL 4460 Evolutionary Genetics  
BIOL 4440 Molecular Genetics

##### 2. Cognates

###### Chemistry Courses

CHEM 1000 Foundations of Chemistry  
CHEM 1001 Foundations of Chemistry Lab  
CHEM 1100 Foundations of Analytical Chemistry  
CHEM 2300 Foundations of Organic Chemistry

###### Physics Courses:

PHYS 2110 College Physics I

###### Mathematics Courses:

MATH 1050 Pre-calculus or Equivalent

###### Additional Requirements for some schools or professions\*

CHEM 1600  
CHEM 3300/3301  
CHEM 3310/3311  
CHEM 2400  
MATH 2510 or 2010  
MATH 2520 or 2020  
PHYS 2120

\*Contact your school of interest or look them up on the internet to determine if you need these additional courses



**CSU Bakersfield**  
School of Natural Sciences,  
Mathematics, and Engineering

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