Contact Information:

Phone (661) 654-3089
Fax (661) 654-6956
Email biology@csub.edu
Web www.csub.edu/biology
Office Science I, Room 114

Scholarships
- Fairie A. Decker Memorial Scholarship
- John Reed Memorial Scholarship
- Friends of Biology Scholarship
- Math and Science Teacher Initiative
- Robert Noyce Scholarship Program

Career Opportunities in the Biological Sciences
A degree in Biology from CSUB can be a stepping stone to many fascinating and rewarding careers. Opportunities for Biology majors abound in research, government, education, industry, and the medical professions. These are just some examples of the many exciting fields open to graduates in Biology, Biotechnology, Human Biological Sciences, Pre-Professional, or Natural Science:

- Environmental Research
- Environmental Consulting
- Water quality management
- Agricultural and Pest management
- Health Care
- Pharmaceutical Industry
- Secondary School Science Education
- Advanced Education
- Clinical Lab Sciences
- Biotechnology
- Wildlife biology
- Biochemistry
- Botany
- Ecology
- Marine biology
- Forestry
- Dentistry
- Optometry
- Veterinary medicine
- Physical Therapy

Faculty
- Paul Smith, Professor & Department Chair (Entomology and Molecular Systematics)
- Todd McBride, Professor (Physiology)
- Isolde Francis, Assistant Professor (Molecular Biology of plant-associated bacteria)
- David Germano, Professor (Herpetology, Mammalogy, and Terrestrial Ecology)
- Jeroen Gillard, Assistant Professor (Physiology and Genomics of Aquatic Microbes)
- Anna L. Jacobsen, Associate Professor and Graduate Director (Plant Anatomy, Ecology, and Evolutionary Biology)
- Carl T. Kloock, Professor (Behavioral Ecology, Arachnology, and Science Education)
- Antje Lauer, Assistant Professor (Environmental Microbiology and Marine Biology)
- R. Brandon Pratt, Professor (Plant Physiology and Ecology)
- Amber Stokes, Assistant Professor (Chemical Ecology and Animal Physiology)
- Kathleen Szick, Associate Professor (Molecular and Cellular Biology)

Full-Time Lecturers
- Dr. Michelle Engel
- Dr. Danielle Dodenhoff
- Dr. Robert Stark

www.csub.edu/nsme | (661) 654-3450 | nsme@csub.edu
Degree Requirements

Bachelor of Science in Biology with a Concentration in Biotechnology:

**Biology Courses**
45 units with a minimum GPA of 2.0
a. Core requirements
   - BIOL 2010 Intro Biology- Cells*
   - BIOL 2110 Intro Biology- Animals
   - BIOL 2120 Intro Biology- Plants
   - BIOL 3120 Research Design & Analysis
   - BIOL 3010 General Genetics
   - BIOL 3020 General Physiology
   - BIOL 4100 Evolution
   - BIOL 4910 Senior Seminar
b. Concentration specific requirements:
   - BIOL 3410 Microbiology
   - BIOL 4440 Molecular Genetics
   - BIOL 4450 Bioinformatics
   - CHEM 2400 Foundations of Biochemistry
   - BIOL 4200 Medical Physiology
   - BIOL 4350 Environmental Microbiology
   - BIOL 4460 Evolutionary Genetics
   - OR
   - Any 4000-level course with a lab by consent of advisor

**Cognates**
17 units with a minimum GPA of 2.0
   - CHEM 1000 Found. of Chemistry Laboratory
   - CHEM 1001 Found. of Chemistry Laboratory
   - CHEM 1100 Found. of Analytical Chemistry
   - CHEM 2300 Found. of Organic Chemistry Laboratory
   - MATH 1050 Precalculus or equiv.
   - PHYS 2110 College Physics I

A minimum GPA for these 66 units is 2.0

---

*Note: A grade of C- or better in BIOL 2010 is required to advance into upper division biology courses.

---

**General Education Information**
Students should read the CSUB catalog and be familiar with the curriculum, and consult with their faculty advisor for specific questions related to the major. Students should read the catalog for specific information related to general education requirements.

**Biology-specific general education information**
General education Area A4 is satisfied by required courses within the biology major.

General education Areas B1-B2 are satisfied by required courses within the biology major

**Total General Education: 39 units**
**Additional elective units:**
15 units for BS in Biology
6 units for BS in Biology with Biotech Concentration

---

For any questions related to the major, contact:
www.csub.edu/nsme  |  (661) 654-3450  |  nsme@csub.edu