The department provides curricula leading to a BS or a BA in Biological Sciences, a minor in Biological Sciences, and a master’s of science degree that will prepare students for entry into PhD programs.

As the most popular major in the college, admission into these programs is highly competitive.

**THE EXPERIENCE**

Biology students take pride in their academic achievements, conducting original research that is at the frontier of science. They also make time to build personal and professional connections that will last a lifetime. From bowling nights to community service events, students create a community that exists beyond the classroom and the laboratory.

**THE OUTCOMES**

No matter what career objective, students are exposed to the major areas of the biological sciences and thus may make an intelligent, well-informed choice of specialization in post-baccalaureate study. Recent graduates are enrolled in programs at institutions around the world, including:

+ Yale University
+ Stanford University
+ University of California, Los Angeles
+ University of California, San Francisco
+ University of Southern California

**STUDENT VOICE**

“I chose to study biology at Pacific because I wanted to have a close relationship with my professors. Under Dr. Stahlschmidt I’ve worked on various physiological trade-off projects. I’m currently studying ants to figure out what resource types different animals prefer.”

DUSTIN JOHNSON
B.S. Biological Sciences
and behavior, drug treatment of pathogens, genetic regulation of bacterial cell types, pathogen transmission via insects, physiological stress responses at the organismal and cellular levels, among many others.

Because of this diversity of interests, the program is sufficiently flexible to prepare students to pursue academic careers in areas such as cell and molecular biology, botany, microbiology, physiology or zoology as graduate students or to work in the field of biotechnology.

Programs also prepare students for professional fields such as dentistry, medicine, pharmacy, medical technology, nursing or physical therapy. No matter what career path students choose, a degree in the Biological Sciences will prepare them for success.

Experiential Learning Opportunities
Many students participate in undergraduate research (BIOL 197). Over a period of one or more semesters these students closely interact with faculty on research projects and get hands-on experience with modern research instruments. Stipends are available to selected undergraduates for summer research. Awardees are given the title of Hornage Undergraduate Research Fellow. Students also are encouraged to participate in Co-op/Internship experiences at dental offices, medical clinics, Micke Grove Zoo and other work areas.

OVERVIEW

Degrees Offered
Bachelor of Arts
Bachelor of Science
Master of Science
(see Graduate Catalog for information)

Majors Offered
Biological Sciences (BA, BS, MS)
Biological Sciences for Teaching Credential Candidates (BS)

Minors Offered
Biological Sciences

Career Opportunities
The biology faculty have a wide range of interests, including topics such as: creating artificial silk fibers, studying the evolution of genetic pathways, protein expression, evolutionary ecology, animal communication

FACULTY

Gregg Jongeward, Senior Associate Dean / Associate Professor
Craig A. Vierra, Professor and Co-Chair
Lisa A. Wrischnik, Associate Professor and Co-Chair
Mark S. Brunell, Associate Professor
Marcos Gridi-Papp, Associate Professor
Ryan Hill, Associate Professor
Jane Khudyakov, Assistant Professor
Kirkwood M. Land, Associate Professor
Geoffrey Lin-Cereghino, Professor

Joan Lin-Cereghino, Professor
Desmond Maxwell, Associate Professor
Douglas Riser, Assistant Professor
Ajna Rivera, Associate Professor
Zachary Stahlschmidt, Assistant Professor
Tara Thiemann, Assistant Professor
Eric O. Thomas, Associate Professor
Douglas Weiser, Associate Professor

BIOLOGY COURSES

BIOL 011. Human Anatomy and Physiology. 4 Units
BIOL 035. Environment: Concepts and Issues. 4 Units
BIOL 041. Introduction to Biology. 4 Units
BIOL 051. Principles of Biology. 5 Units
BIOL 061. Principles of Biology. 5 Units
BIOL 071. Human Anatomy. 5 Units
BIOL 072. Vertebrate Biology. 4 Units
BIOL 074. Biology of Insects. 4 Units
BIOL 076. Marine Biology. 4 Units
BIOL 077. Marine Birds and Mammals. 4 Units
BIOL 079. California Flora. 4 Units
BIOL 081. Human Physiology. 5 Units
BIOL 087. Internship. 1-4 Units
BIOL 087A. Internship. 1-4 Units
BIOL 089. Lab Assistant in Biology. 1-4 Units
BIOL 093. Special Topics. 3 or 4 Units
BIOL 101. Genetics. 5 Units
BIOL 111. Anatomy and Physiology. 4 Units
BIOL 122. Principles of Immunology. 4 Units
BIOL 124. Cancer Biology. 4 Units
BIOL 126. Neurobiology. 4 Units
BIOL 128. Histology. 4 Units
BIOL 130. Plant Kingdom. 4 Units

BIOL 134. Comparative Physiology. 4 Units
BIOL 145. Microbiology. 5 Unit
BIOL 146. Industrial Microbiology. 4 Units
BIOL 147. Medical Microbiology. 4 Units
BIOL 151. Parasitology. 4 Units
BIOL 153. Cell Biology. 4 Units
BIOL 155. Biological Electron Microscopy. 4 Units
BIOL 157. Topics in Biomedical Research. 4 Units
BIOL 158. Computerized Data Acquisition. 4 Units
BIOL 159. Molecular Biological Techniques. 4 Units
BIOL 162. Comparative Vertebrate Anatomy. 5 Units
BIOL 165. Embryology and Development. 4 Units
BIOL 169. Elements of Biochemistry. 4 Units
BIOL 171. Methods in Field Biology. 4 Units
BIOL 175. Ecology. 5 Units
BIOL 176. Ecology and Conservation Biology. 4 Units
BIOL 177. Natural Medicines. 4 Units
BIOL 179. Evolution. 4 Units
BIOL 182. Medical Endocrinology. 4 Units
BIOL 185. Comparative Animal Behavior. 4 Units
BIOL 186. Hormones and Behavior. 4 Units
BIOL 191. Independent Study. 2-4 Units
BIOL 197. Undergraduate Research. 1-4 Units