

Biology

Requirements for a B.S. Major: 64 units

The Biology department offers four options leading to a Bachelor of Science degree in biology – a general track providing a comprehensive introduction to all areas of Biology, and three more specialized tracks, each emphasizing one of the following: 1) cellular and molecular biology; 2) ecology, evolution and natural history, 3) genomics and bioinformatics. Each track comprises lower-division courses in biology, mathematics and physical sciences, as well as a variety of required and elective upper-division courses.

General Biology Track: 64 units

Supporting Science Courses: 28 units

CHM 005, 006 General Chemistry I, II (4,4)

MA 005 Introduction to Statistics (4)

Additional Courses: (8)

CS 010 Design & Implementation of Solutions to Computational Problems (4)

OR: Additional courses in chemistry, mathematics or physics (*Excluding* CHM 004 & MA 008)

Required Biology Courses: 26-29 units

BIO 005, 006 General Biology I, II (4,4)

BIO 114 Genetics (4)

One course from each of the following three areas: (12)

Cellular and Molecular Biology

BIO 113 Biochemistry (4)

BIO 117 Genomics and Bioinformatics (4)

BIO 130 Cell Biology (4)

BIO 132 Molecular Biology (4)

Organismal Biology

BIO 102 Physiology (4)

BIO 108 Animal Diversity (4)

BIO 110 Microbiology (4)

BIO 128 Comparative & Environmental Physiology (4)

BIO 141 Herpetology/Ornithology (4)

BIO 142 Marine Mammal Ecophysiology (4)

Population Biology

BIO 104 Marine Biology (4)

BIO 120 Behavioral Ecology (4)

BIO 125 General Ecology (4)

BIO 126 Animal Ecology (4) (Au Sable)

BIO 129 Tropical Ecology (4)

BIO 131 Evolution (4)

Regional ecosystem courses (various off-campus programs)

One course from the following: (1-4)

BIO 195 Seminar in Biological Literature (1)

BIO 199 Major Honors (4)

One integrative course from the following: (1-4)

BIO 196 Bioethics Seminar (1)

BIO 197 Biology and Faith (4)

BIO 124 Biology, Values, and the Developing World (4)

Major electives from the following for a total of 64 units: 15-18 units

Upper-division BIO

Upper-division CHM

MA 009, 010 Calculus I, II

MA 015 Discrete Mathematics (4)

PSY 125 Behavioral Neuroscience (4)

No more than 12 units to be selected from physical sciences or math.

No more than 2 units of Practicum, BIO 190, 191 or 192.

No more than 4 units Research, BIO 098/198