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.

Cellular and Molecular Biology Track: 64 units

Supporting Science Courses: 28 units
CHM 005, 006 General Chemistry I, II (4,4)
CHM 101, 102 Organic 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: 30-33 units
BIO 005, 006 General Biology I, II (4,4)
Upper-division Biology Laboratory Courses (20)
- BIO 113 Biochemistry (4)
- BIO 114 Genetics (4)
- BIO 130 Cell Biology (4)
- BIO 132 Molecular Biology (4)

One of the following courses: (4)
- BIO 102 Physiology (4)
- BIO 110 Microbiology (4)
- BIO 117 Genomics & Bioinformatics (4)
- BIO 128 Comparative & Environmental Physiology (4)
- BIO 131 Evolution (4)
- BIO 155 Infectious Disease and Immune Response (4)

One of the following courses: (1-4)
- BIO 195 Seminar in Biological Literature (1)
- BIO 199 Major Honors (4)

One integrative course from the following: (1-4)
- BIO 124 Biology, Values, and the Developing World (4)
- BIO 196 Bioethics Seminar (1)
- BIO 197 Biology and Faith (4)

Additional Courses from the following for a total of 64 units: 3-6 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 4 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