

# 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, plus a variety of required and elective upper-division courses.

## Ecology, Evolution and Natural History Track: 64 units

### Supporting Science Courses: 20 units

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

MA 005 Statistics (4)

□ (8)

CHM 101, 102 Organic Chemistry I, II (4,4)

ENV 001 Introduction to Environmental Studies (4)

MA 009, 010 Calculus I, II (4,4)

MA 015 Discrete Mathematics (4)

PHY 011, 013 Physics for Life Sciences I, II (4,4)

PHY 021, 023 General Physics I, II (4,4)

Other environmental courses offered at Westmont field programs ( Environmental Chemistry, Field Geology, Land Resources, Sustainable Development, Environmental Sociology, Land Stewardship Ecology)

### Required Biology Courses: 38-41 units

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

BIO 114 Genetics (4)

BIO 125 General Ecology (4)

BIO 131 Evolution (4)

(4)

BIO 102 Physiology (4)

BIO 110 Microbiology (4)

BIO 128 Comparative and Environmental Physiology (4)

BIO 132 Molecular Biology (4)

BIO 142 Marine Mammal Ecophysiology (4)

Molecular Tools for the Field Biologist (Au Sable)

(12)

At least one course must be taken from each of the following three areas. Courses listed include Westmont courses that would meet the requirement, as well as representative courses of those offered at field stations with which our program has affiliation. No more than two upper division courses may be taken for credit toward the major at off-

BIO 142 Marine Mammal Ecophysiology (4)

Marine Mammals, Animal Ecology, Field Ecology of Birds, Insect Ecology (Au Sable)

3) Upper Division Field Course

BIO 104 Marine Biology (4)

BIO 120 Behavioral Ecology (4)

BIO 129 Tropical Ecology (4)

Aquatic Biology, Alpine Ecology, Conservation Biology, Restoration Ecology, Limnology, Ecological Agriculture (Au Sable), or other upper-division field courses, excluding those that satisfy the Plant or Animal Systematics courses listed above