

Ecology, Evolution and Natural History Track: 64 units

Supporting Science Courses: 20 units

CHM 005 General Chemistry I (4)

CHM 006 General Chemistry II (4)

MA 005 Statistics (4)

Additional courses in physical or other cognate sciences (8) to be selected from the following:

CHM 101 Organic Chemistry (4)

CHM 102 Organic Chemistry II (4)

MA 009 Calculus I (4)

MA 010 Calculus II (4)

MA 015 Discrete Mathematics (4)

PHY 011 Physics for Life Sciences I (4)

PHY 013 Physics for Life Sciences II (4)

PHY 021 General Physics I (4)

PHY 023 General Physics II (4)

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

Required Biology Courses: 38-41 units

BIO 005 General Biology I (4)

BIO 006 General Biology II (4)

BIO 114 Genetics (4)

BIO 125 General Ecology or equivalent course (4)

BIO 131 Evolution (4)

One of the following courses: (4)

BIO 102 Physiology (4)

BIO 110 Microbiology (4)

BIO 128 Physiological Ecology (4)

BIO 132 Molecular Biology (4)

BIO 142 Marine Mammal Ecophysiology (4)

Molecular Tools for the Field Biologist (Au Sable)

Three Field Courses: (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-campus field programs.

Plant Systematics or Field Studies

BIO 151 Plant Classification (4)

Woody Plants, Field Botany or Forest Ecology (AuSable)

Animal Systematics or Field Studies

BIO 108 Animal Diversity (4)

BIO 141 Ornithology/Herpetology (4)

BIO 142 Marine Mammal Ecophysiology (4)

Such courses as: Animal Ecology, Field Ecology of Birds, Marine Mammals, or Insect Ecology (AuSable)

Upper Division Field Course

BIO 104 Marine Biology (4)

BIO 120 Behavioral Ecology

BIO 129 Tropical Ecology (4)

Aquatic Biology, Alpine Ecology, Conservation Biology, Restoration Ecology, Limnology, Ecological Agriculture (AuSable) or other upper-division field course, excluding those that satisfy the Plant or Animal Systematics courses listed above
Courses at a Biological Field Station

TWO courses for the major must be taken, but NO more than two, in residence at a biological field station

One course from the following: (1)

BIO 191 Environmental Practicum (1)

BIO 195 Seminar in Biological Literature (1)

BIO 198 Research (1)

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

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

BIO 196 Seminar in Bioethics (1)

BIO 197 Biology & Faith (4)

Additional courses chosen from the following for a total of 64 units: (3-6 units)

Upper-division BIO

Upper-division CHM

MA 009 Elementary Calculus I (4)

MA 010 Elementary Calculus II (4)

MA 015 Discrete Mathematics (4)

PSY 125 Behavioral Neuroscience (4)

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

No more than 4 units Research: BIO 198