



Conservation Biology Track

Ecology & Evolutionary Biology University of Colorado at Boulder

**** Note: Tracks are intended to be advisory only, not required for graduation. Students are encouraged to seek faculty input to formulate a final selection of courses.*

Recommended for students with an interest in conservation aspects of environmental biology. Students following this track may want to consider a double major with the Environmental Students Program (ENVS), which provides opportunities to place the science of conservation biology in the broader context of environmental aspects of economics, political science, philosophy, law, etc. See your advisors. Completing an ENVS/EBIO double major is not difficult, because many of the humanities and social science aspects of ENVS also serve to satisfy overall Arts and Sciences requirements in these areas.

EBIO Majors Fundamentals Sequence

EBIO 2050-4 Environmental Biology w/lab (or EBIO 1220/1240)
EBIO 2060-4 Cellular and Integrative Physiology w/lab (or EBIO 1210/1230)
EBIO 2070-4 Genetics: Molecules to Population w/recitation
EBIO 2080-4 Evolutionary Biology w/recitation

Area Requirement (at least one course from 2 of the 3 lists)

Environmental Biology: EBIO 3140-3 Plant Ecology, EBIO 3155-3 Population and Community Ecology, EBIO 3240-4 Animal Behavior, EBIO 4040-3 Conservation Biology, EBIO 4170-3 Ecosystem Ecology

Integrative Physiology: EBIO 3430-5 Human Physiology, EBIO 3530-5 Essentials of Plant Physiology, EBIO 3700-5 Comparative Animal Physiology

Evolution/Genetics: EBIO 3500-4 Plant Kingdom, EBIO 3520-4 Plant Systematics, EBIO 3720-5 Comparative Vertebrate Anatomy, EBIO 4650-4 Invertebrate Zoology

Ancillary Sciences and Mathematics

One year of college chemistry. Recommended: CHEM 1111-5 and CHEM 1131-5.
Also Acceptable: CHEM 1111-5 and CHEM 1071-4, or CHEM 1151-6 and CHEM 1171-6. CHEM 1211-3 and CHEN 1221-2 can substitute for CHEM 1111.

One year of college physics. Recommended: PHYS 2010-5 and PHYS 2020-5 (non-calculus based). Also acceptable: PHYS 1110-4 and PHYS 1120-4 and PHYS 1140-1 (calculus based).

One semester of college calculus. Recommended: MATH 1310-5 (computer applications). Also acceptable: MATH 1300-5 or APPM 1350-4. Math modules cannot be substituted.

Principles courses

*** Highly recommended: EBIO 4040-3 Conservation Biology

Recommended depending on emphasis:

EBIO 3140-3 Plant Ecology

EBIO 3155-3 Population and Community Ecology

EBIO 3240-4 Animal Behavior

EBIO 4170-3 Ecosystem Ecology

List of Recommended Advanced Courses

Remember that the College of Arts and Sciences will subtract any hours in excess of the 45 allowed in any one department from the 120 that you need to graduate, i.e. if you have 50 hours of courses with an EBIO prefix you will need 125 hours to graduate. (Only 12 credit hours of courses taken from other departments may be applied to the EBIO major.)

Tropical Conservation Biology (EBIO 3150-3)

Global Ecology (EBIO 3180-3)

Landscape Ecology (EBIO 4165-3)

Ecological Perspectives on Global Change (EBIO 4180-3)

Conservation Thought (GEOG 3422-3)

Environmental Ethics (PHIL 3140-3)

Biology of Special Taxa (Plant Systematics – EBIO 3520-4; Insect Biology –

EBIO 4660-4; Biology of Amphibians and Reptiles – EBIO 4740-3; Ornithology

– EBIO 4750-3; Mammalogy – EBIO 4760-4)

Critical Thinking Courses (EBIO 4800-3)

Ecological Genetics

Island Biology

Advanced Animal Behavior
Population Dynamics
Independent Research/Honors Research

For a total of 38 EBIO hours of which 18 must be upper division and 6 of the upper division must be at the 4000 level.

These 6 hours must be courses with EBIO prefix only and taken on the Boulder campus. Cannot be satisfied with EBIO 4010 or study abroad. No more than three credit hours of independent study/research will count. Up to two Critical Thinking courses in EBIO can be counted.