

ECOLOGY AND EVOLUTIONARY BIOLOGY MAJOR INFORMATION SHEET

For Students Declaring EBIO Fall 2015 or Later.

To complete an EBIO Major, students must take **38** hours in EBIO (**18** must be upper division), statistics, and ancillary coursework in Chemistry, Calculus and/or Physics. **All of these courses must be completed with a C- or better.** EBIO Majors may run a degree audit to see their progress. Students interested in declaring EBIO should run a “what-if” audit. *Your audit will also show the additional requirements that all Arts and Sciences student must complete to receive a Bachelor’s Degree from CU.*

Lower Division Required EBIO Courses

- EBIO 1210** (3) General Biology 1 (Fall & Summer)
- EBIO 1230** (1) General Biology 1 Lab (Fall & Summer)
- EBIO 1220** (3) General Biology 2 (Spring & Summer)
- EBIO 1240** (1) General Biology 2 Lab (Spring & Summer)
- EBIO 2040** (4) Ecology (Fall, Spring & Summer)
- EBIO 2070** (4) Genetics (Fall, Spring & Summer)

Upper Division Required EBIO Courses

- EBIO 3080** (4) Evolution (Fall, Spring & Summer)
- 1 EBIO Laboratory Course** (3-4), EBIO Field Course or Mountain Research Station Course.
(See EBIO audit for approved courses. EBIO 4410 Biometry is not a lab course)

Complete a 4000-level EBIO course at CU Boulder (either on main campus, Mountain Research Station, or EBIO Global Seminar). EXCLUDES: EBIO4980, 4990, 4840, 4870 and study abroad course.

Complete additional 4000-level EBIO coursework to reach a total of 6 hours 4000-level EBIO:

EBIO Electives

Additional courses as needed to reach 38 hours of EBIO/18 hours upper division EBIO

These may be EBIO courses or may be from the approved list of out-of-dept. courses. (See list on back) A maximum of 12 total credits of these out-of-dept. courses may be used for the EBIO Major.

******EBIO 1030, 1040, 1050 and 1950 do not count towards the major******

Additional Required Courses for EBIO Major

Statistics (choose from one of the classes): EBIO 1010, MATH 2510, MATH 2520, PSYC 3101 (requires College Algebra or higher as prerequisite), or EBIO 4410

Ancillary Coursework (Choose **3** classes from the following):

- 1) **General Chemistry 1:** CHEM 1113 (4) & CHEM 1114 (1)*
- 2) **General Chemistry 2:** CHEM 1133 (4) & CHEM 1134 (1)*
- 3) **Physics 1**
 - a. Algebra-based: PHYS 2010 (5)
 - b. Calculus-based: PHYS 1110 (4) (Requires calc 1)
- 4) **Physics 2**
 - a. Algebra-based: PHYS 2020 (5)
 - b. Calculus-based: PHYS 1120 (4) & PHYS 1140 (1)* (Requires calc 2)
- 5) **Calculus 1:** MATH 1300 (5), 1310 (5) or APPM 1350 (4)
- 6) **Calculus 2:** MATH 2300 (5) or APPM 1360 (4)

*Students must take the lecture and lab for these courses

Outside of EBIO Optional Electives

A maximum of 12 credit hours may be applied to the major.

Even if the course is not applied to major hours, it will be included in your EBIO GPA.

Many of these courses do have prerequisites so be sure to check.

CU courses not listed here cannot be counted toward the major.

Anthropology

ANTH 3000-Primate Behavior
ANTH 3005- Dogs, Wolves and Human Evolution
ANTH 3010- The Human Animal
ANTH 4020- Explorations in Anthropology –
“Ecology & Adapt. Yellowstone”
ANTH 4060- Nutrition and Anthropology
ANTH 4110- Human Evolutionary Biology
ANTH 4120- Advanced Physical ANTH.
ANTH 4170- Primate Evolutionary Biology

Civil Engineers (CVEN)

CVEN 3434- Intro to Applied Ecology
CVEN 4484- Environmental Microbiology

Chemistry

CHEM 4400- Core Concepts in PChem for Biochemists
CHEM 4611- Survey of Biochemistry
CHEM 4700- Foundations of Biochemistry
CHEM 4720- Metabolic Pathways and Human Disease
CHEM 4740- Biochem of Gene Transmission, expression,
and Regulation
CHEM 4761- Biochemistry Lab

Discontinued CHEM courses that can count toward the EBIO
major: CHEM 4411, 4421, and 4711, 4731

Economics

ECON 3535- Natural Resource Economics
ECON 3545- Environmental Economics

Education

EDUC 5315- Secondary Science Ed

Environmental Studies

ENVS 2100- Permaculture
ENVS 3600- Principles of Climate
ENVS 4160- Intro to Biogeochemistry
ENVS 4201- Biometeorology
ENVS/MUSM 4795- Field Methods in Zoology and Botany

Geography

GEOG 3351- Biogeography
GEOG 3412 - Conservation Practice

GEOG 3511- Intro to Hydrology
GEOG 3601- Principles of Climate
GEOG 4093- Remote Sensing-Environment
GEOG 4201- Biometeorology
GEOG 4203- GIS-Modeling Applications
GEOG 4311- Watershed Biogeochemistry
GEOG 4371- Forest Geography
GEOG 4401- Soils Geography
GEOG 4411- Methods of Soil Analysis
GEOG 4501- Water Resource Management in the West

Geology

GEOG 3040- Global Change
GEOG 3410- Paleobiology
GEOG 3720- Evolution of Life: The Geological Record
GEOG 4160- Introduction to Biogeochemistry
GEOG 4474- Vertebrate Paleontology

Museum Studies

MUSM 4473- Museum Field Methods in Botany
MUSM 4494-Field Research: Basic Methods and New
technologies
ENVS/MUSM 4795- Field Methods in Zoology and Botany
MUSM 4915- Museum Practicum in Zoology
MUSM 5061- Intro to Scientific Illustration

IPHY

IPHY 2420- Nutrition, Health and Performance
IPHY 3400- Nutrition for IPHY majors
IPHY 3060- Cell Physiology
IPHY 3410- Intro to Human Anatomy
IPHY 3415- Human Anatomy Lab
IPHY 3430- Intro to Human Physiology
IPHY 3435- Physiology Lab
IPHY 3450- Comp. Animal Physiology
IPHY 3460- Comp. Vertebrate Anatomy
IPHY 3490- Epidemiology
IPHY 4200- Physiological Genetics
IPHY 4440- Endocrinology
IPHY 4470- Bio of Human Reproduction
IPHY 4480- Comparative Reproduction
IPHY 4600- Immunology
IPHY 4720- Neurophysiology

Neuroscience

NRSC 4032- Neurobiology of Learning and Memory
NRSC 4052- Behavioral NRSC (PSYC 4052)
NRSC 4062- Neurobiology of Stress
NRSC 4092- Behavioral Neuroendocrinology
NRSC 4132-Neuropharmacology

MCDB

MCDB 1150/1151- Intro to MCDB & Lab
MCDB 2150/2151- Prin. of Genetics & Lab
MCDB 3135- Molecular Cellular Biology 1
MCDB 3140- Cell Biology Lab
MCDB 3145- Molecular Cellular Biology 2
MCDB 3150- Biology of the Cancer Cell
MCDB 3160- Emerging Infectious Diseases
MCDB 3330- Evolution and Creationism.
MCDB 3350- Fert/Ster/Mammal Devel.
MCDB 3650- The Brain from Molecules to Behaviors
MCDB 3651- Brain: Dysfunction to disease
MCDB 3990- Intro to Systems Biology
MCDB 4100- Special Topics
MCDB 4310- Microbial Genetics & Physiology
MCDB 4314- Algorithms for Molecular Bio.

MCDB 4330- Bacterial Disease Mech.
MCDB 4350- Microbial Diversity & the Biosphere
MCDB 4425- Cellular Stress Responses & Human Diseases
MCDB 4426- Cell Signaling & Develop. Reg.
MCDB 4444- Cellular Basis of Disease
MCDB 4471- Mech. of Gene Reg. in Eukaryotes
MCDB 4501- Struc. Methods for Biological Macromolecules
MCDB 4520- Bioinformatics & Genomics
MCDB 4615- Biology of Stem Cells
MCDB 4621- Genome Databases
MCDB 4650- Developmental Biology
MCDB 4750- Animal Virology
MCDB 4777- Molecular Neurobiology
MCDB 4790- Experimental Embryology
MCDB 4810- The Biology & Biophysics of the Membrane

Philosophy

Phil 3160- Bioethics
Phil 3140- Environmental Ethics

Psychology

PSYC 3102- Behavioral Genetics
PSYC 3112- Behavioral Genetics 2
PSYC 4052- Behavioral NRSC (NRSC 4052)