

CONSERVATION BIOLOGY

NOTE: THERE ARE TWO DIFFERENT LISTS OF DIRECTED ELECTIVES BELOW – YOURS DEPENDS ON ENROLLMENT DATE

DIRECTED ELECTIVES FOR STUDENTS WHO ENROLLED PRIOR TO FALL 2011

To ensure that Conservation Biology undergraduates obtain both strength and breadth of knowledge, 30 elective credit hours must be distributed in a way that satisfies seven requirements (A-F, below).

A. Field Experience Elective

At least three elective credits from an approved field course in biology (in addition to the core field course, EFB 202). These credits are typically obtained through an elective course at our Cranberry Lake Biological Station, an approved internship (EFB 420) or field trip course (EFB 500). FOR 304 (Adirondack Field Studies) or approved field courses from other institutions can also fulfill this requirement.

B. Organism Diversity Specialization (at least one course from 3 of the following 4 subject areas)

To encourage breadth in organism-level biology, students must complete at least one course from three of the following four subject areas (a course from each group is strongly recommended).

The availability of courses that satisfy this requirement varies. The suggestions below are pre-approved courses that are typically taken – consult with your advisor or the curriculum coordinator about other possibilities. Many other courses can potentially substitute (by petition) for those listed.

1. Diversity of Microorganisms

EFB 303	Introductory Environmental Microbiology (4 cr.) F
EFB 340	Forest and Shade Tree Pathology (3 cr.) S
EFB 342	Fungal Diversity and Ecology (3 cr.) CLBS
EFB 440	Mycology (3 cr.) F
EFB 441	Field Plant Pathology (3 cr.) CLBS
EFB 443	Plant Virology (3 cr.) S

2. Diversity of Plants

EFB 326	Diversity of Plants (3 cr.) S
EFB 327	Adirondack Flora (3 cr.) CLBS
EFB 336	Dendrology (3 cr.) F
EFB 446	Ecology of Mosses (3 cr.) S
EFB 535	Flowering Plants: Diversity, Evolution, and Systematics (3 cr.) F

3. Diversity of Invertebrate Animals

EFB 351	Forest Entomology (3 cr.) F, even years
EFB 352	Elements of Entomology (3 cr.) F, odd years
EFB 355	Invertebrate Zoology (4 cr.) S
EFB 453	Parasitology (3 cr.) S
EFB 554	Aquatic Entomology (3 cr.) F

4. Diversity of Vertebrate Animals

EFB 384	Field Herpetology (3 cr.) CLBS
EFB 388	Ecology of Adirondack Fisheries (3 cr.) CLBS
EFB 479	Field Ornithology (3 cr.) CLBS
EFB 482	Ornithology (4 cr.) F
EFB 483	Mammal Diversity (4 cr.) S
EFB 485	Herpetology (3 cr.) F
EFB 486	Ichthyology (3 cr.) S

C. Applied Conservation Biology (at least 6 credits)

EFB 390	Wildlife Ecology and Management (4 cr.)	F
EFB 423	Marine Ecology (4 cr.)	S, even years
EFB 424	Limnology (3 cr.)	F
EFB 444	Biodiversity and Geography of Nature (3 cr.)	F, even years
EFB 480	Animal Behavior (3 cr.)	S
EFB 487	Fisheries Science & Management (3 cr.)	F
EFB 493	Management of Wildlife Habitats & Populations (3 cr.)	F
EFB 502	Ecology and Management of Invasive Species (3 cr.)	S
EFB 522	Ecology, Resources and Development (2 cr.)	S
EFB 542	Freshwater Wetland Ecosystems (3 cr.)	S

D. Human Dimensions (at least 3 credits)

EWP 390	Intro to Literature of Nature (3 cr.)	F
CMN 393	Environ Discourse (3 cr.)	F
EFB 404	Nat Hist Museums of Modern Sci (3 cr.)	S
EFB 405	Literature of Natural History (3 cr.)	S
EST 353	Environ Psychology (3 cr.)	S
EST 366	Attitudes, Values, & Env. (3 cr.)	S
EST 390	Social Processes and Environment (3 cr.)	S
EST 496	Land Use Law (3 cr.)	S
FOR 312	Sociology/Natural Resources (3 cr.)	S
FOR 360	Principles of Management (3 cr.)	F
FOR 465	Natural Resources and Environ. Policy (3 cr.)	F

E. Communications and Interpretation (at least 3 credits)

EWP 405	Writing for Science Professionals (3 cr.)	F,S
EFB 416	Intro. Environmental Interpretation (3 cr.)	
EFB 417	Perspectives in Interpretive Design (3 cr.)	
EFB 521	Principles of Interpretive Programming (3 cr.)	

F. Technical Skills (at least 3 credits)

APM 360	Intro Computer Programming (3 cr.)	F
BTC 401	Molecular Biology Techniques (3 cr.)	F
BTC 425	Plant Biotechnology (3 cr.)	S
BTC 426	Plant Tissue Culture Methods (3 cr.)	F
EFB 518	System Ecology (4 cr.)	F
EFB 519	Geographic Modeling (3 cr.)	S
ENS 550	Environ Impact Analysis (3 cr.)	F
ERE 445	Hydrological Modeling (3 cr.)	F
ESF 300	Introduction to Geospatial Information Technologies (3 cr.)	F,S
ERE 550	Intro Geographic Information Systems (3 cr.)	F
ERE 563	Photogrammetry (3 cr.)	S