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