BACHELOR OF SCIENCE IN WILDLIFE SCIENCE

Wildlife science is the application of ecological knowledge in a manner that strikes a balance between
the needs of wildlife populations and the needs of people. Coursework and faculty expertise span the
animal kingdom and the planet, with a programmatic emphasis on North American species, policies, and
practices. The focus is applied ecology, and students gain the skills, knowledge, and abilities required to
meet contemporary and future challenges facing wildlife such as restoring habitat, securing populations
of rare and vulnerable species, mitigating human-wildlife conflicts, controlling invasive species and
disease, managing sustainable harvests, and ensuring species persistence under climate change. The
curriculum prepares students for working in state or federal wildlife agencies, non-governmental
conservation organizations, or consulting firms and also prepares students for continuing on to a graduate
degree program, which may greatly expand employment opportunities and is often necessary for
careertrack positions.

Required Courses

APM 105	Survey Of Calc & Appl I	4
APM 391	Intro/Probability&Stats	3
EFB 101	Gen Bio I:Organismal Bio&Ecol	3
EFB 102	General Biology I Laboratory	1
EFB 103	Gen Bio II:Cell Bio & Genetics	3
EFB 104	General Biology II Laboratory	1
EFB 120	The Global Envirnmnt & Society	3
EFB 132	Orientation Seminar:EFB	1
EFB 202	Ecol Monitor&Bio Assessmnt	3
EFB 210	Diversity of Life I	3
EFB 211	Diversity of Life II	3
EFB 307	Principles Of Genetics	3
EFB 308	Prin Of Genetics Lab	1

EFB 311	Principles of Evolution	3
EFB 320	General Ecology	4
EFB 390	Wildlife Ecology&Mgt	4
EFB 491	Applied Wildlife Science	3
EFB 493	Wildlife Habitats & Populatns	4
ESF 300	Intro/Geospatial Info Tech	3
EWP 190	Writing And The Envrnment	3
EWP 220	Public Presentation Skills	2 - 3
FCH 150	General Chemistry I	3
FCH 151	General Chemistry I Lab	1
FCH 152	General Chemistry II	3
FCH 153	General Chemistry II Lab	1
FOR 110	Environmental Physics	3
OR		
FCH 210	Elements Of Organic Chem	4
OR		
FOR 345	Introduction to Soils	3
FOR 465	Natural Resources Policy	3
OR		
FOR 489	Natural Resources Law & Policy	3
EFB 482	Ornithology	4
OR		
EFB 483	Mammal Diversity	4

Electives

Course	Codes*	Credits
General Education Course in two of the following categories: US History & Civic Engagement, The Arts, World History and Global Awareness, World Languages	G	6

General Education Course in Diversity, Equity, Inclusion and Social Justice	G	3
Directed Electives		18
Open Electives		22

Directed Electives

To ensure that Wildlife Science undergraduates obtain both strength and breadth of knowledge, and position themselves for professional certification by The Wildlife Society, 18 elective credits must be obtained in the following subject areas (A-D), through specific courses that are designed for juniors or seniors (i.e. courses numbered 300 or higher)

1. **Field experience (3 credits):**
   This requirement can be satisfied during any year, and is normally done via coursework at Cranberry Lake Biological Station. ESF field courses offered during semester break, field courses offered by other institutions or organizations (e.g, School for Field Studies), independent research projects, or job-related internships during the summer session.
2. **Vertebrate Structure and Function (3 credits):**
   Choose at least one course from the following:
   - EFB 385 Comparative Vertebrate Anatomy (4 cr.) S
   - EFB 462 Animal Physiology: Environmental and Ecological (4 cr.) F
   - EFB 480 Principles of Animal Behavior (4 cr.) F
3. **Botany and Plant Science (6 credits)**
   Choose at least two courses from the following:
   - EFB 326 Plant Evolution, Diversification and Conservation (3 cr.) S
   - EFB 336 Dendrology (3 cr.) F
   - EFB 337 Field Ethnobotany (3 cr) **CLBS**
   - EFB 340 Forest Shade and Tree Pathology (3 cr.) F
   - EFB 427 Plant Anatomy and Development (3 cr.) F
   - EFB 429 Plant Physiology (3 cr.) S
   - EFB 435 Flowering Plants: Diversity, Evolution and Systematics (3 cr.) F
   - EFB 440 Mycology (3 cr.) F
   - EFB 445 Plant Ecology and Global Change (3 cr.) S
   - EFB 446 Ecology of Mosses (3 cr.) S
   - EFB 496 Wetland Plants & Communities of Adirondacks (3 cr.) **CLBS**
   - EFB 496 Flora of Central NY (3 cr.) **Maymester**
4. **Wildlife Specialization (6 credits):** choose at least two courses from one or more categories as listed below:

1. a. Population and habitat management:
   EFB 370 Population Ecology and Management (3 cr.) S
   EFB 438 Ecology and Management of Waterfowl (3 cr.)
   EFB 449 Wetlands Conservation and Management (3 cr.) S, even years
   EFB 487 Fisheries Science and Management (3 cr.) F
   EFB 502 Ecology and Management of Invasive Species (3 cr.) S
   EFB 518 Systems Ecology: Ecological Modelling and Design
   FOR 232 Natural Resources Ecology (3 cr.) S
   FOR 442 Watershed Ecology and Management (3 cr.) F
   FOR 496 Forest Management and Wildlife (3 cr.) S
   b. Wildlife Health:
   EFB 360 Epidemiology (3 cr.) F
   EFB 400 Toxic Health Hazards (3 cr.) F
   EFB 453 Parasitology (3 cr.) F
   EFB 462 Animal Physiology: Environmental and Ecological (4 cr.) S
   c. Biodiversity
   EFB 352 Entomology (3 cr.) F
   EFB 355 Invertebrate Zoology (4 cr.) S
   EFB 413 Introduction to Conservation Biology (3 cr.) F
   EFB 486 Ichthyology (3 cr.) S
   EFB 485 Herpetology (3 cr.) F
   d. Human dimensions of conservation
   EFB 305 Indigenous Issues and the Environment (3 cr.) S
   EST 353 Behavior Change and the Environment (3 cr.) F
   EST 390 Social Processes and the Environment (3 cr.) S
   EST 366 Attitudes, Values and the Environment (3 cr.) S, even years
   EST 460 Land Use Law (3 cr.) S
   EST 312 Sociology of Natural Resources (3 cr.) S
   EST 493 Environmental Communication Workshop (3 cr.) S

Total Minimum Credits For Degree: 126