

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 career track positions.

Required Courses

APM 105

APM 210

EFB 101

EFB 102

EFB 103

EFB 104

EFB 120

EFB 132

EFB 202

EFB 210

EFB 211

EFB 307

EFB 308

EFB 311

EFB 320

EFB 390

EFB 491

EFB 493

ESF 300

EWP 190

EWP 220

FCH 150

FCH 151

FCH 152

FCH 153

FOR 110

OR

FCH 210

OR

FOR 345

FOR 465

OR

FOR 489

EFB 482

OR

EFB 483

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)

A. 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.

B. 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

C. 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 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 433 Flora of Central NY (3 cr.) **Maymester**

D. Wildlife Specialization (6 credits):

choose at least two courses from one or more categories as listed below:

1. Population and habitat management:
 - EFB 370 Population Ecology and Management (3 cr.) S
 - EFB 438 Ecology and Management of Waterfowl (3 cr.) F
 - EFB 449 Wetlands Conservation and Management (3 cr.) S
 - EFB 487 Fisheries Science and Management (3 cr.) F
 - EFB 502 Ecology and Management of Invasive Species (3 cr.) S
 - 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
2. 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
3. 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
4. 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

