

# Wildlife Biology

## Bachelor of Science

The understanding of our natural environment has never been more important than the present. The pressures of a growing population, increased development, altered communities, and changing climate present serious problems to ecosystems locally, nationally, and globally. Programs to study and monitor our environment's health are widespread, occurring through federal and state government agencies, universities and numerous private organizations. These programs require enthusiastic, dedicated individuals with the necessary training to carry out intensive field studies on individual species, communities, and ecosystems.

The wildlife biology degree is an environmentally-focused program that synergistically integrates zoology, botany, earth science, and chemistry. The program is based on the belief that field experience is vital to the understanding of ecosystems. Field experience includes exposure to a wide variety of habitats, including aquatic and terrestrial communities, field observations, and collection and analysis of data. Students are expected to be able to identify flora and fauna of an area and learn collection, observation, and census techniques. The field experiences are complemented by a thorough understanding of ecological theory and practice as well as an in-depth understanding of the different fields of natural history. Much of the field experience takes place at the Elk Valley Preserve, a 70-acre preserve located on the Elk River. This area includes a variety of terrestrial and aquatic habitats typical of the Southern Appalachians. The field station is a fully operational ecology lab equipped with field and lab gear for student projects and research. The preserve and field station presents students with the opportunity for ecological field studies in a natural setting.

Upon graduation, wildlife biology majors will have both the necessary knowledge and skills to find employment as biologists for a wide variety of employers including the National Park Service, National Forest Service, Environmental Protection Agency, Army Corps of Engineers, state agricultural extension programs, state and county parks, environmental assessment and restoration businesses, zoos, fish hatcheries, private forestry companies, utility companies, and conservation organizations. Students will also have the necessary curriculum and experience to be accepted to and succeed in graduate school.

### Wildlife Biology Requirements:

- General Education Requirements
- Bachelor of Science Requirements
- Major Requirements
- Electives
- Specialization (optional)

**Total Credit Hours | 120**

### General Education Requirements

See details in the General Education section of the catalog.

### Bachelor of Science Requirements

6-8 additional hours in math or science, not duplicating core coursework, taken from:

Prefix	Course Number
BIO	101, 102, 105, 114, 115, 121, 122
CHM	101, 111

MAT	111, 112, 116, 117, 215, 220, 227
PHY	101, 111, 112
SCI	211

### Additional Requirements | 9 Credit Hours

If not taken as part of the core or the BS Degree Requirements, students are required to take the following courses:

Class Name	Credit Hours
BIO 121 Introduction to Ecology	3 credit hours
BIO 122 Introduction to Evolution	3 credit hours
MAT 112 College Algebra	3 credit hours

## Major Requirements | 44–46 Credit Hours

### Core Requirements | 24–26 Credit Hours

Class Name	Credit Hours
<b>Choose one of the following:</b>	
BIO 231 Introduction to Field Biology	4 credit hours
BIO 281 Introduction to Wildlife Rehabilitation I	3 credit hours
<b>Required</b>	
BIO 211 General Zoology	4 credit hours
BIO 221 General Botany	4 credit hours
BIO 433 Principles of Ecology	4 credit hours
BIO 499 Senior Research for Biology Majors	3 credit hours
MAT 215 Statistics	3 credit hours
<b>Choose one of the following:</b>	
CHM 101 Descriptive Environmental Chemistry	3 credit hours
CHM 111 General Chemistry	4 credit hours

### Electives | Select 20 Credit Hours

Class Name	Credit Hours
Any 200 level BIO course	
Any 300 level BIO course	
Any 400 level BIO course	
Any 200 level CHM course	
Any 300 level CHM course	

Class Name	Credit Hours
PHY 111 General Physics I	4 credit hours
PHY 112 General Physics II	4 credit hours
SCI 271 Laboratory Assistant in Science	2 credit hours
SCI 272 Laboratory Assistant in Science	2 credit hours

# Wildlife Biology

## Minor

The wildlife biology minor requires at least 21 credit hours beyond general education and degree requirements.

### Required Courses | 18 Credit Hours

The following courses must be taken.

Class Name	Credit Hours
BIO 121 Introduction to Ecology	3 credit hours
BIO 122 Introduction to Evolution	3 credit hours
BIO 211 General Zoology	4 credit hours
BIO 221 General Botany	4 credit hours
BIO 433 Principles of Ecology	4 credit hours

### Elective Courses | At least 3 Credit Hours

At least one more 300 or 400 level biology class must be taken from the following courses.

Class Name	Credit Hours
BIO 486 Freshwater Systems	3 credit hours
BIO 431 Conservation Biology	3 credit hours
BIO 441 Ornithology	4 credit hours
BIO 445 Mammalogy	4 credit hours
BIO 451 Animal Behavior	3 credit hours

Please note: a student majoring in wildlife biology cannot minor in wildlife rehabilitation. However, the student can choose wildlife rehabilitation as a specialization.

# Wildlife Biology

## Specialization in Wildlife Rehabilitation

Humans share this planet with a vast number of other species. Many individuals feel a sense of responsibility towards these fellow species. This discipline offers such students the opportunity to become intimately familiar with the care, needs and behavior of wild and domesticated vertebrates. Wildlife rehabilitation is the treatment and temporary care of injured, diseased and displaced indigenous wildlife and the subsequent return of healthy animals to appropriate habitats in the wild.

The program has two general objectives: (1) to provide students with clinical opportunities to work with animals and (2) to integrate the experiential, clinical aspect of the program with a rigorous academic program. Clinical/internship requirements will be met by students completing an eleven week (12 hour) internship at the May Wildlife Rehabilitation Center. Students will work with hundreds of injured and orphaned native wild animals. They will also work with the many permanent non-releasable animals used as partners in education. The presence of the wildlife care center on campus offers students an opportunity to gain experience in caring for injured, sick and orphaned wildlife. Students will learn skills of medically treating injured wildlife, along with the necessary natural history in order to provide the best care possible. The May Wildlife Rehabilitation Center follows the most up-to-date policies and procedures set by the National Wildlife Rehabilitators Association.

The wildlife rehabilitation specialization is designed for those students with a career interest in providing healthcare to wildlife or domesticated animals. The specialization provides an undergraduate several structured intern and clinical opportunities to work with injured and sick animals, as well as providing a strong academic background as a preparation for graduate work and veterinary school. Graduates of this program will be qualified for careers in wildlife rehabilitation, public and private zoos, and animal research laboratories. Students hoping to practice veterinary medicine should follow the Health Science curriculum in order to fulfill the requirements for most veterinary schools, attend veterinary school, and complete a Doctor of Veterinary Medicine degree.

### Specialization in Wildlife Rehabilitation | 26 Credit Hours

Class Name	Credit Hours
BIO 155 Fundamentals of Human and Animal Relationships	3 credit hours
BIO 282 Wildlife as Partners in Education	3 credit hours
BIO 292 Advanced Clinical Rehabilitation	4 credit hours
BIO 351 Comparative Vertebrate Anatomy	4 credit hours
BIO 392 Clinical Wildlife Rehabilitation I	6 credit hours
BIO 393 Clinical Wildlife Rehabilitation II	6 credit hours