WILDLIFE ECOLOGY AND CONSERVATION | PREPROFESSIONAL

Designed for those with a keen interest in wildlife ecology and conservation, this major provides training for a variety of wildlife careers, as well as a solid foundation for professional employment or advanced graduate study. The primary focus is to develop the student’s knowledge of the conservation and management of wildlife and their habitats for the greatest aesthetic, ecological, economic, and recreational values.

About this Program

- **College**: Agricultural and Life Sciences
- **Degree**: Bachelor of Science
- **Credits for Degree**: 120
- **Specializations**: Preprofessional | Wildlife Ecology and Conservation
- **Additional Information**
- **Contact**

**Related Wildlife Ecology and Conservation Programs**

- Bachelor of Science in Forest Resources and Conservation
- Wildlife Ecology and Conservation minor

**Preprofessional**

This specialization satisfies the coursework requirements for admission to the Doctor of Veterinary Medicine program. Students pursuing admission to the College of Veterinary Medicine must take six credits of general education composition, nine credits of humanities and six credits of social and behavioral sciences.

Some students can also satisfy requirements for certification as an associate wildlife biologist by The Wildlife Society. Certification requirements and application material are available at www.wildlife.org.

**Critical Tracking**

Critical Tracking records each student’s progress in courses that are required for entry to each major. Please note the critical-tracking requirements below on a per-semester basis.

Equivalent critical-tracking courses as determined by the State of Florida Common Course Prerequisites may be used for transfer students.

**Semester 1**

- Complete 2 of 7 critical-tracking courses, excluding labs: BSC 2010/2010L, BSC 2011/2011L, CHM 2045/2045L, CHM 2046/2046L, AEB 2014 or AEB 3103 or ECO 2023, MAC 2311, STA 2023
  - 2.5 GPA on required math and science courses combined
  - 2.0 UF GPA required

**Semester 2**

- Complete 2 additional critical-tracking courses, excluding labs
  - 2.5 GPA on required math and science courses combined
  - 2.0 UF GPA required

**Semester 3**

- Complete 1 additional critical-tracking course, excluding labs
  - 2.5 GPA on required math and science courses combined
  - 2.0 UF GPA required

**Semester 4**

- Complete 2 additional critical-tracking courses, excluding labs
  - 2.5 GPA on required math and science courses combined
  - 2.0 UF GPA required

**Semester 5**

- Complete all critical-tracking courses, including labs
  - 2.5 GPA on required math and science courses combined
  - 2.0 UF GPA required

**Model Semester Plan**

To remain on track, students must complete the appropriate critical-tracking courses, which appear in bold. These courses must be completed by the terms as listed above in the Critical Tracking criteria.

This semester plan represents an example progression through the major. Actual courses and course order may be different depending on the student’s academic record and scheduling availability of courses. Prerequisites still apply.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td><strong>Semester One</strong></td>
<td></td>
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<tr>
<td>BSC 2010 &amp; 2010L</td>
<td>Integrated Principles of Biology 1 and Integrated Principles of Biology Laboratory 1 (Critical Tracking; Gen Ed Biological Sciences)</td>
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<tr>
<td>CHM 2045 &amp; 2045L</td>
<td>General Chemistry 1 and General Chemistry 1 Laboratory (Critical Tracking; State Core Gen Ed Physical Sciences)</td>
<td>4</td>
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<tr>
<td>WIS 2920</td>
<td>Wildlife Colloquium</td>
<td>1</td>
</tr>
<tr>
<td>State Core Gen Ed Composition; Writing Requirement: 6,000 words</td>
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<tr>
<td>Select one:</td>
<td>Gen Ed Humanities</td>
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<tr>
<td></td>
<td>Gen Ed Social and Behavioral Sciences</td>
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<tr>
<td><strong>Credits</strong></td>
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| **Semester Two** | | |
| BSC 2011 & 2011L | Integrated Principles of Biology 2 and Integrated Principles of Biology Laboratory 2 (Critical Tracking; Gen Ed Biological Sciences) | 4 |
| CHM 2046 & 2046L | General Chemistry 2 and General Chemistry 2 Laboratory (Critical Tracking; Gen Ed Physical Sciences) | 4 |
IUF 1000  What is the Good Life (Gen Ed Humanities)  3
Gen Ed Composition; Writing Requirement; 6,000 words  3

Semester Three
AEC 3033C  Research and Business Writing in Agricultural and Life Sciences (Writing Requirement: 6,000 words)  3
CHM 2210  Organic Chemistry 1  3
MAC 2311  Analytic Geometry and Calculus 1 (Critical Tracking; Gen Ed Mathematics)  4
State Core Gen Ed Humanities  3
State Core Gen Ed Social and Behavioral Sciences  3

Semester Four
Select one:  3-4
AEB 2014  Economic Issues, Food and You (Critical Tracking)
AEB 3103  Principles of Food and Resource Economics (Critical Tracking)
ECO 2023  Principles of Microeconomics (Critical Tracking; Gen Ed Social and Behavioral Sciences)
CHM 2211 & 2211L  Organic Chemistry 2 and Organic Chemistry Laboratory  5
STA 2023  Introduction to Statistics 1 (Critical Tracking; State Core Gen Ed Mathematics)  3
WIS 3402 & 3402L  Wildlife of Florida and Wildlife of Florida Laboratory  4

Semester Five
Select one:  3-4
FOR 3153C  Forest Ecology
PCB 3601C  Plant Ecology
PCB 4043C  General Ecology
WIS 3404  Natural Resource Ecology
PHY 2053 & 2053L  Physics 1 and Laboratory for Physics 1  5
WIS 3401  Wildlife Ecology and Management  3
Elective  3

Semester Six
Select one:  3-4
AGR 3303 or PCB 3063  Genetics
PHY 2054 & 2054L  Physics 2 and Laboratory for Physics 2  5
WIS 4501  Introduction to Wildlife Population Ecology  3
Elective  4

Semester Seven
AEC 3033C  Effective Oral Communication  3
BCH 4024 or CHM 3218  Introduction to Biochemistry and Molecular Biology or Organic Chemistry/Biochemistry 2  4
Select one:  3
WIS 4523  Human Dimensions of Natural Resource Conservation
FNR 4070C  Environmental Education Program Development
FOR 3202  Society and Natural Resources
FOR 4664  Sustainable Ecotourism Development

WIS 4554  Conservation Biology or WIS 4203C or Landscape Ecology and Conservation  3
Elective  3

Semester Eight
Select 9-11 credits:  9-11
ANS 3006 & 3006L  Introduction to Animal Science and Introduction to Animal Science Laboratory
ANS 3440  Principles of Animal Nutrition
WIS 4203C  Landscape Ecology and Conservation
WIS 4427C  Wildlife Habitat Management
WIS 4601C  Quantitative Wildlife Ecology
WIS 4941  Internship in Wildlife Ecology and Conservation
WIS 4945C  Wildlife Techniques
MCB 3020 & 3020L  Basic Biology of Microorganisms and Laboratory for Basic Biology of Microorganisms  4
Elective  2

Additional electives may be needed to complete the 120 credits required for graduation. Students can choose any courses as electives.

State core courses can be selected to meet the university’s requirements for writing, international and diversity focused courses.

Additional Learning Compact
The primary focus of the wildlife ecology and conservation major is to develop students’ knowledge of the conceptual and applied aspects of scientific, social and ethical thought in wildlife ecology and conservation. Emphasis is placed on the biology, ecology, natural history and behavior of Florida wildlife species and the management of wildlife, their habitats and their population dynamics for the greatest aesthetic, ecological, economic and recreational values. Students will learn to think critically about major problems in the conservation of biological diversity and to apply biological principles to the preservation of this diversity.

Before Graduating Students Must
- Pass the wildlife ecology and conservation competency exam, given as part of WIS 4203C or WIS 4554.
- Achieve minimum grades of C in AEC 3030C and AEC 3033C. These courses are graded using rubrics developed by a faculty team.
- Complete requirements for the baccalaureate degree, as determined by faculty.

Students in the Major Will Learn to

Student Learning Outcomes (SLOs)

Content
1. Acquire knowledge of scientific, social and ethical arenas of wildlife ecology and conservation; acquire skills for critical reasoning in conservation management; acquire knowledge of Florida wildlife species and their biology, ecology, natural history and behavior; describe principles and applications of wildlife management practices, population dynamics and habitat management; and apply biological principles to solve problems in wildlife conservation and preserve biological diversity.

Credits
Total Credits 120
**Critical Thinking**
2. Apply ecological, mathematical and statistical concepts to interpret, understand and communicate wildlife ecology and conservation data.

**Communication**
3. Create, interpret and analyze written text, oral messages and multimedia presentations used in agricultural and life sciences.

**Curriculum Map**

$I =$ Introduced; $R =$ Reinforced; $A =$ Assessed

<table>
<thead>
<tr>
<th>Courses</th>
<th>SLO 1</th>
<th>SLO 2</th>
<th>SLO 3</th>
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<tr>
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<td>I,R,A</td>
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<td>R</td>
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<tr>
<td>WIS 4554</td>
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**Assessment Types**
- Exams
- Final course grades