WILDLIFE AND FISHERIES SCIENCES - BS, WILDLIFE ECOLOGY AND CONSERVATION OPTION

Graduates are well equipped for post-baccalaureate study in many life science fields (graduate school programs and human and veterinary medicine) or for direct entry into professions such as wildlife management, fisheries management, environmental impact assessment, aquaculture, natural history museum education, zoological park collection management, public school teaching and urban wildlife management. Employers of recent graduates include state and federal resource agencies, scientific foundations, ranches, hunting and fishing clubs, fish farms, environmental consulting firms, museums and secondary schools.

Wildlife ecology, aquatic ecology, and vertebrate zoology curriculum options lead to the Bachelor of Science degree. Each student will choose a course of study from among the options within the department’s curricula after consultation with the academic advisor. The chosen option is enhanced by a common departmental “core” of courses necessary for a sound education in the wildlife and fisheries conservation professions.

Students are encouraged to develop an emphasis area within their degree option. To build this emphasis area, students will choose directed electives, from related disciplines, in consultation with their academic advisor and faculty members.

Wildlife Ecology and Conservation Option

This option is designed for students interested in the research, management and conservation of wildlife and its ecosystems. This option provides considerable flexibility when designing a degree program and allows students to focus on both terrestrial and aquatic conservation management. Job opportunities are available with state and federal agencies; private land management individuals and companies; state, national and international organizations; zoos and wildlife centers; environmental consulting firms; and as private consultants. In addition, this degree program can prepare students for further graduate school studies in the wildlife and/or fisheries area. Emphasis areas in this option include:

Wildlife Ecology Emphasis

The wildlife ecology emphasis is for students interested in research and management of terrestrial animals and ecosystems, including game, non-game, and endangered species. The ability to be certified is becoming increasingly important for employment. Courses taken can go toward course certification requirements of The Wildlife Society.

Wildlife and Fisheries Management Emphasis

This emphasis is for students interested in understanding and management of both aquatic and terrestrial habitats. Courses taken can go toward course certification requirements of both the American Fisheries Society and The Wildlife Society. The ability to be certified is becoming increasingly important for employment.

Conservation Biology Emphasis

This emphasis is for students interested in conservation of the earth’s biodiversity. This emphasis allows the student to focus on various ecological environments and socio-economic aspects including urban and/or wetland conservation.

Program Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Semester Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 101 &amp; CHEM 111</td>
<td>Fundamentals of Chemistry I and Fundamentals of Chemistry Laboratory I</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 222</td>
<td>Elements of Organic and Biological Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 242</td>
<td>Elementary Organic Chemistry Laboratory</td>
<td>1</td>
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<tr>
<td>ENGL 210</td>
<td>Technical and Business Writing</td>
<td>3</td>
</tr>
<tr>
<td>GENE 301 &amp; GENE 312</td>
<td>Comprehensive Genetics and Comprehensive Genetics Laboratory</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 201</td>
<td>College Physics</td>
<td>4</td>
</tr>
<tr>
<td>RENR 205</td>
<td>Fundamentals of Ecology</td>
<td>3</td>
</tr>
<tr>
<td>STAT 302</td>
<td>Statistical Methods</td>
<td>3</td>
</tr>
<tr>
<td>WFSC 101</td>
<td>Introduction to Wildlife and Fisheries</td>
<td>1</td>
</tr>
<tr>
<td>WFSC 302</td>
<td>Natural History of the Vertebrates</td>
<td>3</td>
</tr>
<tr>
<td>WFSC 304</td>
<td>Wildlife and Fisheries Conservation</td>
<td>3</td>
</tr>
<tr>
<td>Physiology</td>
<td>4</td>
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Select one of the following:
- WFSC 335 Natural History of the Invertebrates
- BIOL 388 Principles of Animal Physiology
- VTPP 423 Biomedical Physiology I

Field experience

Select one of the following:
- WFSC 300/ Field Studies
- ENTO 300
- WFSC 484 Internship
- WFSC 485 Directed Studies
- WFSC 491 Research

Wildlife Ecology and Conservation Option

Biodiversity electives

Select two of the following:
- ENTO 313 Biology of Insects
- WFSC 315 Herpetology
- WFSC 401 General Mammalogy
- WFSC 402 General Ornithology

Earth science elective

Select one of the following:
- SCSC 301 Soil Science
- GEOL 101 Principles of Geology
- OCNG 251 Oceanography & OCNG 252 and Oceanography Laboratory

Policy elective

3
Select one of the following:

- **WFSC 303** Fish and Wildlife Laws and Administration
- **RENR 470** Environmental Impact Assessment
- **RENR 375** Conservation of Natural Resources
- **ESSM 406** Natural Resources Policy

**Directed electives**

- 26 credits

**University Core Curriculum**

- **BIOL 111** Introductory Biology I
- **BIOL 112** Introductory Biology II
- **COMM 203** Public Speaking
- **ENGL 104** Composition and Rhetoric
- **MATH 131** Mathematical Concepts—Calculus
  - or **MATH 142** or Business Calculus
- **PHIL 240** Introduction to Logic
  - or **MATH 141** or Finite Mathematics
- **RENR 215** Fundamentals of Ecology—Laboratory

American history electives (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history) 3

Creative arts elective (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#creative-arts) 3

Government/Political science electives (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#government-political-science)

Language, philosophy and culture elective (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#language-philosophy-culture) 3

Social and behavioral science elective (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#social-behavioral-sciences) 3

**Total Semester Credit Hours** 120

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1. Students currently enrolled at Texas A&M who wish to transfer to a Wildlife and Fisheries Sciences major must have achieved a grade of C or higher in introductory biology and mathematics courses required in the University Core Curriculum. Enrollment in Wildlife and Fisheries Sciences (WFSC) option courses will be restricted to students who have achieved a grade of C or higher in prerequisite courses.

2. Directed electives to be chosen in areas related to wildlife management, conservation or animal behavior.

3. The Graduation requirements include a requirement for 6 hours of international and cultural diversity courses. A course satisfying a Core category, a college/department requirement, or a free elective can be used to satisfy this requirement.

Students are required to make a C or better in all WFSC and RENR 205/RENR 215 courses.

A total of 120 semester hours will be required for a BS degree.