WILDLIFE AND FISHERIES SCIENCES - BS, AQUATIC 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.

This option (Aquatic Ecology & Conservation Option which is also known as the Fisheries, Aquaculture, and Aquatic Sciences Option) is designed for students interested in the research and management of fish, other freshwater and marine organisms, and the ecosystems that sustain them as well as controlled production of organisms in aquatic systems. Careers are available in state and federal resource agencies; fisheries management companies; nongovernmental conservation organizations; environmental consulting firms; and private consultation. In addition careers may be available in supporting areas such as quality control, supply, marketing, distribution, finance, consultation as well as domestic and foreign resource development. This degree option can also prepare students for grad school. This option meets American Fisheries Society requirements for certification as an Associate Fisheries Professional.

Program Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Semester Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>CHEM 101</td>
<td>Fundamentals of Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>&amp; CHEM 111</td>
<td>and Fundamentals of Chemistry Laboratory I</td>
<td></td>
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<tr>
<td>CHEM 222</td>
<td>Elements of Organic and Biological Chemistry</td>
<td>3</td>
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<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</td>
<td>Comprehensive Genetics Laboratory</td>
<td>3</td>
</tr>
<tr>
<td>&amp; GENE 312</td>
<td>and Comprehensive Genetics Laboratory</td>
<td></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>
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<tr>
<td>WFSC 304</td>
<td>Wildlife and Fisheries Conservation</td>
<td>3</td>
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<tr>
<td>WFSC 316</td>
<td>Field Herpetology</td>
<td>3</td>
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Select one of the following:

- BIOL 388 Principles of Animal Physiology
- WFSC 335 Natural History of the Invertebrates
- VTPP 243 Biomedical Physiology I
- WFSC 316 Field Herpetology

Field experience 3

Select one of the following:

- WFSC 300/ Field Studies
- ENTO 300
- WFSC 484 Internship
- WFSC 485 Directed Studies
- WFSC 491 Research

Aquatic Ecology and Conservation Option

- WFSC 311 Ichthyology
- WFSC 403 Animal Ecology
- WFSC 404 Aquatic Ecosystems
- WFSC 410 Principles of Fisheries Management
- WFSC 425 Marine Fisheries
- WFSC 444 Aquaculture I: Principles and Practices
- WFSC 447 Aquaculture II: Aquatic Animal Nutrition, Feeding and Disease Management
- WFSC 448 Fish Ecophysiology
- WFSC 449 Professional Aspects of Aquatic Ecology
- WFSC 303 Fish and Wildlife Laws and Administration

Directed electives 2 6

University Core Curriculum

- BIOL 111 Introductory Biology I 4
- BIOL 112 Introductory Biology II 4
- COMM 203 Public Speaking 3
- ENGL 104 Composition and Rhetoric 3
- MATH 131 Mathematical Concepts—Calculus or MATH 142 or Business Calculus
- MATH 141 or MATH 142 or Finite Mathematics
- PHI 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) 6

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

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 fisheries, aquaculture and related topics.

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.