WILDLIFE AND FISHERIES SCIENCES - BS, FISHERIES, AQUACULTURE AND AQUATIC SCIENCES TRACK

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 and Conservation; Fisheries, Aquaculture and Aquatic Sciences; 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 (previously known as the Aquatic Ecology and Conservation) 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

First Year		
Fall		
		Semester Credit Hours
BIOL 111	Introductory Biology I	4
ECCB 205	Fundamentals of Ecology [1]	3
MATH 140	Mathematics for Business and Social Sciences	3
WFSC 101	Introduction to Wildlife and Fisheries [1]	3
Directed elective [2]		3
	Semester Credit Hours	**16**
Spring		
BIOL 112	Introductory Biology II	4
MATH 142	Business Calculus	3
American history (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history) [3]		3
Language, philosophy and culture (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#language-philosophy-culture) [3]		3
Social and behavioral sciences (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#social-behavioral-sciences) [3]		3
	Semester Credit Hours	**16**
Second Year		
Fall		
CHEM 119	Fundamentals of Chemistry I	4
ECCB 302	Diversity and Evolution of Vertebrates [1]	3
ENGL 104	Composition and Rhetoric	3
American history (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history) [3]		3
Creative arts (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#creative-arts) [3]		3
	Semester Credit Hours	**16**
Spring		
CHEM 222	Elements of Organic and Biological Chemistry	3
COMM 203	Public Speaking	3
ECCB 215	Fundamentals of Ecology–Laboratory [1]	1
Select one of the following:		3-4
BIOL 388	Principles of Animal Physiology	
ECCB 313	Diversity and Evolution of Invertebrates	
VTPP 423	Biomedical Physiology I	
Government/Political science (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#government-political-science) [3]		3
Directed elective [2]		1
	Semester Credit Hours	**14**
Third Year		
Fall		
ECCB 311	Ichthyology [1]	3
ECCB 403	Population and Community Ecology [1]	3
STAT 302	Statistical Methods	3
RWFM 449	Professional Aspects of Aquatic Ecology	3
Government/Political science (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#government-political-science) [3]		3
	Semester Credit Hours	**15**
Spring		
PHYS 201	College Physics	4
RWFM 308	Fish and Wildlife Laws and Administration	3
RWFM 404	Aquatic Ecosystems [1]	3
WFSC 425	Marine Fisheries [1]	3

Directed elective [2]		4
	Semester Credit Hours	**17**
Fourth Year		
Fall		
ECCB 448	Fish Ecophysiology [1]	3
RWFM 410	Principles of Fisheries Management [1]	4
RWFM 447	Aquaculture II: Aquatic Animal Nutrition, Feeding and Disease Management [1]	3
Select one of the following: [1]		3
ECCB 300/ ENTO 300	Field Studies	
RWFM 484	Internship	
RWFM 485	Directed Studies	
RWFM 491	Research	
	Semester Credit Hours	**13**
Spring		
ECCB 304	Conservation Biology [1]	3
ENGL 210	Technical and Professional Writing	3
GENE 301 & GENE 312	Comprehensive Genetics and Comprehensive Genetics Laboratory	4
RWFM 443	Aquaculture I: Principles and Practices [1]	3
	Semester Credit Hours	**13**
	Total Semester Credit Hours	**120**

1 Must make a grade of C or better.

2 Directed electives to be chosen in areas related to fisheries, aquaculture and related topics.

3 Graduation requirements include a requirement for 3 hours of International and Cultural Diversity (http://catalog.tamu.edu/undergraduate/general-information/degree-information/international-cultural-diversity-requirements/) courses and 3 hours of Cultural Discourse (http://catalog.tamu.edu/undergraduate/general-information/degree-information/cultural-discourse-requirements/) courses. A course satisfying a Core category, a college/department requirement, or a free elective can be used to satisfy this requirement.

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