

RANGELAND, WILDLIFE AND FISHERIES MANAGEMENT - BS, AQUACULTURE AND FISHERIES MANAGEMENT TRACK

The Aquaculture and Fisheries Management track blends chemistry, mathematics, and biology basics with the advanced techniques necessary to sustainably manage wild fish populations or inland fishery/aquaculture operations. Courses are designed to focus on the integration of applied fisheries management and aquaculture production disciplines, preparing students to handle traditional and emerging, complex issues. Core areas of study include fish biology and disease, hatchery management, commercial aquaculture production, restoration and stock enhancement aquaculture aquatic ecosystem management, and water quality management.

Upon graduation, students will meet the basic qualifications to apply for the American Fisheries Society's Associate Fisheries Professional certification, and later the Certified Fisheries Professional certification following professional experience, providing competitive credentials in today's job market. Students will be prepared to seek employment in a variety of careers spanning government agencies, such as Texas Parks and Wildlife and the U.S. Fish and Wildlife Service, or private aquaculture operations.

Program Requirements

First Year

Fall		Semester Credit Hours
AGEC 105	Introduction to Agricultural Economics	3
BIOL 111	Introductory Biology I	4
ENGL 210	Technical and Professional Writing	3
MATH 140	Mathematics for Business and Social Sciences ¹	3
RWFM 101	Exploring Rangeland, Wildlife and Fisheries Management	1
Semester Credit Hours		14
Spring		
BIOL 112	Introductory Biology II	4
COMM 203	Public Speaking	3
ECCB 205	Fundamentals of Ecology	3
ECCB 215	Fundamentals of Ecology--Laboratory	1
MATH 142	Business Calculus	3
Semester Credit Hours		14
Second Year		
Fall		
CHEM 119	Fundamentals of Chemistry I	4
POLS 206	American National Government	3
RWFM 202	Concepts in Applied Plant Biology	3

Creative arts (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#creative-arts)		3
Language, philosophy and culture (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#language-philosophy-culture)		3
Semester Credit Hours		16
Spring		
POLS 207	State and Local Government	3
RWFM 305	Principles and Practices of Wildlife and Fisheries Management	3
RWFM 314	Principles of Rangeland Management Around the World	3
RWFM 345 or RWFM 436	Human Dimensions of Natural Resource Management and Policy or Natural Resources Policy	3
Semester Credit Hours		12
Summer		
RWFM 333	Rangeland, Wildlife & Fisheries Field Techniques	3
Semester Credit Hours		3
Third Year		
Fall		
ECCB 302	Diversity and Evolution of Vertebrates	3
RWFM 321	Communicating Natural Resources	3
RWFM 370	Aquatic Vegetation Identification and Management	3
STAT 302	Statistical Methods	3
Directed elective ²		4
Semester Credit Hours		16
Spring		
AGEC 325	Principles of Farm and Ranch Management	3
RWFM 308	Fish and Wildlife Laws and Administration	3
RWFM 371	Fisheries and Small Impoundment Management	3
RWFM 404 or RWFM 443	Aquatic Ecosystems or Aquaculture Production and Hatchery Management	3
General elective		2-3
Semester Credit Hours		15
Summer		
RWFM 484	Internship	1
Semester Credit Hours		1
Fourth Year		
Fall		
ECCB 311	Ichthyology	3
RWFM 351	Geographic Information Systems for Resource Management	3
RWFM 375	Conservation of Natural Resources	3
RWFM 410 or RWFM 447	Principles of Fisheries Techniques and Management or Aquatic Animal Nutrition, Diet Formulation and Feeding	3-4

American history (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history)	3
Semester Credit Hours	15
Spring	
RWFM 350 Wildlife and Fisheries Population Dynamics or RWFM 445 or Fish Health and Diseases	3
RWFM 446 Fish Physiology	3
RWFM 481 Senior Seminar	1
American history (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history)	3
Directed elective ²	4
Semester Credit Hours	14
Total Semester Credit Hours	120

¹ Must make a grade of C or better.

² Select from CHEM 120, CHEM 222, CHEM 242, GEOG 203, GEOG 213, GEOL 101, GEOL 102, MARS 102, OCNG 251, OCNG 252, PHYS 201, SCSC 301.

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. Select in consultation with an academic advisor.