

# RANGELAND, WILDLIFE AND FISHERIES MANAGEMENT - BS, NATURAL RESOURCES MANAGEMENT AND POLICY TRACK

Texas rangeland, woodland, wetland, and aquatic ecosystems provide the citizens of Texas with a multitude of benefits. These benefits include income, water, recreation, wildlife habitat, and scenic beauty. The population of Texas grew over 15% from 2010 to 2020 to approximately 29 million. This population increase has impacted several key regions in the state, e.g., suburban areas and the Hill Country. However, this rapid population growth and environmental change threaten resilience and sustainability of these vital ecosystems. Educating ecosystem managers skilled in making decisions that promote sustainability and resilience is a primary goal of the faculty and staff of the Department of Rangeland, Wildlife, and Fisheries Management (RWFm). The RWFm curriculum provides graduates with the necessary skills and integrates knowledge from several science disciplines. The synergy that arises from the integration of biological, physical, and social sciences in RWFm gives rise to novel real-world solutions suitable for uncertainty and unprecedented change. The RWFm curriculum is not entrenched in any one discipline or any single ecosystem. It equips students with the breadth and depth of knowledge that is reflective of the diversity in the ecosystems in which we live and the issues we face.

## Natural Resources Management and Policy Track

Environmental issues are complex. They require a broad range of competencies to be successfully addressed. The Natural Resource Management and Policy track prepares students to examine environmental and conservation issues through a multi-disciplinary framework that includes political, cultural, social, economic, regulatory and ecological dimensions. Students in the Natural Resource Management and Policy track gain knowledge and skills from courses in the natural and social sciences to evaluate environmental and conservation issues with consideration of varied stakeholder interests, to understand different perspectives, and to work effectively with others to find solutions to environmental challenges domestically and internationally. These critical skills are taught in the classroom and through field experiences that will enable students to envision a desired environmental or conservation outcome, and then design a plan and identify the steps needed to bring the vision to fruition. The Natural Resource Management and Policy track prepares students for a variety of jobs in conservation, environmental management, and policy, with an emphasis on positions that require strong interpersonal skills, leadership, and collaboration with people of diverse insights, experiences, and opinions. These skills are transferable to a broad range of conservation and environmental management employment opportunities in areas such as outdoor education, park and protected area management, environmental planning and consultation, and non-profit organizations.

## Program Requirements

First Year		Semester
Fall		Credit Hours
AGEC 105	Introduction to Agricultural Economics	3
ENGL 104	Composition and Rhetoric	3
HORT 201 & HORT 202	Horticultural Science and Practices and Horticultural Science and Practices Laboratory	4
MATH 140	Mathematics for Business and Social Sciences	3
RWFm 101	Exploring Rangeland, Wildlife and Fisheries Management	1
<b>Semester Credit Hours</b>		<b>14</b>
Spring		
ECCB 205	Fundamentals of Ecology	3
ECCB 215	Fundamentals of Ecology--Laboratory	1
ENGL 210 or COMM 203	Technical and Professional Writing or Public Speaking	3
MATH 142	Business Calculus	3
Select one of the following:		4
BIOL 107	Zoology	
BIOL 111	Introductory Biology I	
BIOL 112	Introductory Biology II	
<b>Semester Credit Hours</b>		<b>14</b>
Second Year		
Fall		
CHEM 119	Fundamentals of Chemistry I	4
POLS 206	American National Government	3
RWFm 305	Principles and Practices of Wildlife and Fisheries Management	3
American history ( <a href="http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history">http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history</a> )		3
Creative arts ( <a href="http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#creative-arts">http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#creative-arts</a> )		3
<b>Semester Credit Hours</b>		<b>16</b>
Spring		
POLS 207	State and Local Government	3
RWFm 202	Concepts in Applied Plant Biology	3
American history ( <a href="http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history">http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history</a> )		3
Language, philosophy and culture ( <a href="http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#language-philosophy-culture">http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#language-philosophy-culture</a> )		3
Directed elective <sup>1</sup>		3
<b>Semester Credit Hours</b>		<b>15</b>
Summer		
RWFm 333	Rangeland, Wildlife & Fisheries Field Techniques	3
<b>Semester Credit Hours</b>		<b>3</b>

**Third Year****Fall**

ECCB 318/ RWF 318	Coupled Social and Ecological Systems	3
RWF 308	Fish and Wildlife Laws and Administration	3
RWF 314	Principles of Rangeland Management Around the World	3
RWF 323	Parks and Protected Area Management	3
RWF 345	Human Dimensions of Natural Resource Management and Policy	3
<b>Semester Credit Hours</b>		<b>15</b>

**Spring**

AGEC 325	Principles of Farm and Ranch Management	3
RPTS 336	Research and Analysis in Recreation and Tourism	3
RWF 321	Communicating Natural Resources	3
RWF 322	Community Development and Sustainability	3
STAT 302	Statistical Methods	3
<b>Semester Credit Hours</b>		<b>15</b>

**Fourth Year****Fall**

ECCB 351	Geographic Information Systems for Resource Management	3
RPTS 460/ ECCB 460	Nature, Values, and Protected Areas	3
RWF 436	Natural Resources Policy	3
RWF 484	Internship	1
Directed elective <sup>1</sup>		3
General elective <sup>2</sup>		2
<b>Semester Credit Hours</b>		<b>15</b>

**Spring**

RWF 375	Conservation of Natural Resources	3
RWF 461	Community-Based Conservation	3
RWF 481	Senior Seminar	1
Directed elective <sup>1</sup>		3
General elective <sup>2</sup>		3
<b>Semester Credit Hours</b>		<b>13</b>
<b>Total Semester Credit Hours</b>		<b>120</b>

<sup>1</sup> Direct electives to be chosen in consultation with Academic Advisor.<sup>2</sup> Select any 100-499 course not used elsewhere.

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.