

RANGELAND, WILDLIFE AND FISHERIES MANAGEMENT - BS, WILDLIFE MANAGEMENT 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.

Wildlife Management Track

Every year, more land transitions to wildlife management as its primary use. Wildlife conflict issues impact more of the world each day. The program track in Wildlife Management provides students the necessary background and experience to seek careers in the growing field of wildlife management, and to prepare them to lead in the wildlife profession through transformative teaching, diverse educational experiences, professional preparation with leading wildlife biologists, and hands-on skills learning. This program will prepare students to competitively engage in this profession upon graduation, or to pursue graduate education. Students will gain critical understanding of the basic sciences (e.g. chemistry, mathematics, biology) that will allow them to fully understand the management techniques and methods they will study in their advanced coursework. The Wildlife Management track student will have a strong foundation in the basics of wildlife management: population dynamics, anatomy and physiology, habitat management principles, and wildlife techniques. A summer field practicum will provide intense, hands-on experience to solidify these principles. Students will pursue advanced coursework in focal management areas, such as large mammal management, upland bird management, waterfowl/wetland management, or wildlife damage management, that can translate into lifelong careers. Upon graduation, students will qualify for The Wildlife Society's Associate Wildlife Biologist® certification to provide competitive credentials in today's job market. The graduate of the Wildlife Management track will be prepared to step into the modern wildlife management workforce with the requisite skills to be a leading member of the wildlife profession in technical skill, professional communication, and scientific acumen.

Program Requirements

| First Year | | Semester Credit Hours |
|--|---|-----------------------|
| Fall | | |
| AGEC 105 | Introduction to Agricultural Economics | 3 |
| BIOL 111 | Introductory Biology I | 4 |
| ENGL 104 | Composition and Rhetoric | 3 |
| MATH 140 | Mathematics for Business and Social Sciences | 3 |
| RWFM 101 | Exploring Rangeland, Wildlife and Fisheries Management | 1 |
| Semester Credit Hours | | 14 |
| Spring | | |
| BIOL 112 | Introductory Biology II | 4 |
| 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 |
| 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 |
| American history (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history) | | 3 |
| Creative arts (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#creative-arts) | | 3 |
| Semester Credit Hours | | 16 |
| Spring | | |
| CHEM 222 | Elements of Organic and Biological Chemistry | 3 |
| POLS 207 | State and Local Government | 3 |
| RWFM 305 | Principles and Practices of Wildlife and Fisheries Management | 3 |
| American history (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history) | | 3 |
| Language, philosophy and culture (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#language-philosophy-culture) | | 3 |
| Semester Credit Hours | | 15 |
| Summer | | |
| RWFM 333 | Rangeland, Wildlife & Fisheries Field Techniques | 3 |
| Semester Credit Hours | | 3 |
| Third Year | | |
| Fall | | |
| ECCB 302 | Diversity and Evolution of Vertebrates | 3 |

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|------------------------------|--|---|
| ECCB 351 | Geographic Information Systems for Resource Management | 3 |
| RWFM 321 | Communicating Natural Resources | 3 |
| STAT 302 | Statistical Methods | 3 |
| Botany | | 3 |
| Select one of the following: | | |
| ECCB 203 | Forest Trees of North America | |
| ECCB 312 | Agrostology | |
| RWFM 302 | Wildland Plants of North America | |

Semester Credit Hours **15**

Spring

| | | |
|------------------------------|---|---|
| RWFM 308 | Fish and Wildlife Laws and Administration | 3 |
| RWFM 314 | Principles of Rangeland Management Around the World | 3 |
| RWFM 350 | Wildlife Population Dynamics | 3 |
| SCSC 301 | Soil Science | 4 |
| Biodiversity | | 3 |
| Select one of the following: | | |
| ECCB 315 | Herpetology | |
| ECCB 401 | General Mammalogy | |
| ECCB 402 | General Ornithology | |

Semester Credit Hours **16**

Fourth Year**Fall**

| | | |
|------------------------------|-----------------------------------|---|
| RWFM 375 | Conservation of Natural Resources | 3 |
| RWFM 406 | Wildlife Habitat Management | 3 |
| RWFM 484 | Internship | 1 |
| Biodiversity | | 3 |
| Select one of the following: | | |
| ECCB 315 | Herpetology | |
| ECCB 401 | General Mammalogy | |
| ECCB 402 | General Ornithology | |

Wildlife management **3**

Select one of the following:

| | | |
|-----------------------|----------------------------------|--|
| RWFM 309/ VTPB 301 | Wildlife Diseases | |
| RWFM 405 | Urban Wildlife and Fisheries | |
| RWFM 419 | Wildlife Restoration | |
| RWFM 421 | Upland Bird Management | |
| RWFM 422 | Large Mammal Management | |
| RWFM 423 | Waterfowl and Wetland Management | |
| RWFM 424 | Wildlife Damage Management | |
| RWFM 425 | Carnivore Management | |

General elective ¹ **1**

Semester Credit Hours **14**

Spring

| | | |
|------------------------------|--|---|
| AGEC 325 | Principles of Farm and Ranch Management | 3 |
| RWFM 408 | Techniques of Wildlife Management | 3 |
| RWFM 481 | Senior Seminar | 1 |
| Advanced wildlife biology | | 3 |
| Select one of the following: | | |
| ECCB 313 | Diversity and Evolution of Invertebrates | |

| | | |
|------------------------------------|---|------------|
| RWFM 349 | Rangeland and Wildlife Animal Nutrition | |
| RWFM 354 | Wildlife Anatomy and Physiology | |
| Wildlife management | | 3 |
| Select one of the following: | | |
| RWFM 309/ VTPB 301 | Wildlife Diseases | |
| RWFM 405 | Urban Wildlife and Fisheries | |
| RWFM 419 | Wildlife Restoration | |
| RWFM 421 | Upland Bird Management | |
| RWFM 422 | Large Mammal Management | |
| RWFM 423 | Waterfowl and Wetland Management | |
| RWFM 424 | Wildlife Damage Management | |
| RWFM 425 | Carnivore Management | |
| Semester Credit Hours | | 13 |
| Total Semester Credit Hours | | 120 |

¹ Select from 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.