

Master of Natural Resource Development (MNRD)

The overall goal of this professional Master's degree (non-thesis) program is to provide working natural resource professionals with an understanding of the interrelationships among ecology, economics, policy and culture, as factors that influence natural resource conservation and management.

The MNRD degree via distance education is currently offered through two departments: [Department of Ecosystem Science and Management \(ESSM\)](#) and [Department of Wildlife and Fisheries Sciences \(WFSC\)](#).

The research and academic programs of the Department of Ecosystem Science and Management center on ecosystem science, ecosystem management, genetics and systematics, and spatial science. ESSM has a diverse faculty and active research programs in ecohydrology of managed ecosystems, ecological restoration of terrestrial and wetland ecosystems, forest and rangeland ecology and management, genetics and genomics research within an ecosystem framework, global change ecology, human dimensions of ecosystem management, spatial science research focused on ecological and natural resource issues, and urban forestry and broader urban ecosystem issues.

The Department of Wildlife and Fisheries Sciences similarly has a large and diverse faculty engaged broadly in research, from molecular genetics and evolutionary biology, to applied ecological studies of aquatic and terrestrial ecosystems and their management. The research and academic programs of WFSC center on the biology, ecology and conservation of wild vertebrates (fish, amphibians, reptiles, birds, and mammals), thus complementing the more habitat- and vegetation-oriented programs of ESSM. In addition, WFSC's focus extends well beyond the shoreline and into the aquatic realm, both inland and marine. An important aquatic dimension of WFSC's program is aquaculture.

Program objectives

Provide working or in-service natural resource professionals with:

- Additional academic training that supplements student's understanding of the full range of considerations in natural resources management
- A rigorous graduate degree program that supplements job-skill requirements
- A program delivery strategy that accommodates on-the-job obligations

Requirements

As a professional Master's degree, the MNRD via distance education requires 36 credit hours of academic work. Among these, 24 hours normally will be from courses in the home department (ESSM or WFSC) and selected courses from other TAMU departments; 6 unrestricted elective credits may be applied toward the degree; and, 6 credits will be earned for a professional paper. Up to 9 credits of undergraduate 300- or 400-level courses may be included. All courses will be determined through consultation between the student and the student's advisory committee, based on the student's academic needs.

Up to 12 credit hours (of the required 36) for courses taken with a grade of B or better from another accredited U.S. institution may be considered for transfer credit. Any transfer work is subject to review and approval by the student's graduate advisory committee, department head and the Office of Graduate Studies.

At the conclusion of the MNRD program, the student will be required to submit a professional paper, and take a final oral exam covering the topical area of the paper and associated studies. The exam will be held on the Texas A&M University campus (unless alternative arrangements are approved by the advisory committee).

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Acceptance into the program is limited. Applicants must hold a B.S. or B.A. degree from an accredited institution, preferably in science, agriculture, engineering, or education. A minimum of 3.0 GPA in the last 60 undergraduate hours is expected; but, individual exceptions can be made, based on professional training and achievements beyond undergraduate study. In addition to completing the [Texas Common Application](#), additional materials are required by the [Department of Ecosystem Science and Management](#) or by the [Department of Wildlife and Fisheries Sciences](#).

Application deadlines: October 15 for the Spring semester, March 15 for the Summer semester, and June 15 for the Fall semester. International students should complete applications by: September 15 for the Spring semester, and February 15 for the Summer and Fall semesters.

For More Information

Please send e-mail to the following departmental contacts:

Department of Ecosystem Science and Management

Dr. Robert Knight (979) 845-5557/(979) 324-6980, bob-knight@tamu.edu

Ms. Heather Halliburton (979) 862-8993, hhaliburton@ag.tamu.edu

Department of Wildlife and Fisheries Sciences

Dr. William Neill (979) 845-5759, w-neill@tamu.edu

Mr. Felix Arnold (979) 845-5768, fwarnold@tamu.edu

Distance Courses

The following distance courses are offered through the **Department of Ecosystem Science and Management**:

Course #	Course Title/Student Credit Hours (SCH)
ESSM 624	Terrestrial Ecosystems and Global Change/Forest Policy/3
ESSM 670	Ecosystems & Markets/Economic Analysis for Forest Resource Decisions/3
ESSM 617	Urban Forestry/3
RENr 405	GIS for Environmental Problem Solving/3
ESSM 676/RENr 650	Leadership Development & Mgmt of Environmental NGOs/3
RENr 689	International Sustainable Community Development/3
ESSM 610	Rangeland Resource Management/3
ESSM 636	Range and Forest Watershed Management/3
ESSM 630	Restoration Ecology/3
ESSM 635	Ecohydrology/3
ESSM 660	Landscape Analysis and Modeling/3

The following distance courses are offered through the **Department of Wildlife and Fisheries Sciences**:

Course #	Course Title/Student Credit Hours (SCH)
WFSC 405/635	Urban Wildlife & Fisheries/3
WFSC 417/617	Biology of Fishes/4
WFSC 420/630	Ecology & Society/3
WFSC 422/689	Ethology/3
WFSC 604	Ecological Modeling/3
WFSC 613	Animal Ecology/3
WFSC 616	Physiological Ecology of Vertebrates/4
WFSC 622	Behavioral Ecology of Vertebrates/3
WFSC 647	Nutritional Biochemistry of Fishes/3
WFSC 681	Seminar/1
WFSC 689	Principles of Fisheries Management/4