

NATURAL RESOURCES AND THE ENVIRONMENT, M.S.

Overview

The Department of Natural Resources and Environment offers an M.S. in Natural Resources and the Environment (NRE) designed to provide specialized and professional knowledge in the area of sustainable natural resource management and protection. The focus of the program is on the application of scientific theory and principles to complex environmental issues such as development and implementation of environmental regulations, sustainable resource use and management, and human interaction with the environment. This student-centered degree integrates multiple disciplines and diverse backgrounds to prepare students for employment or advanced degrees in broad topics spanning assessment, management, and protection of aquatic and terrestrial resources considering the ecosystem, organismal, and human dimensions of resources. Utilization of sound scientific principles to formulate, implement and analyze data for solving complex problems underlies the foundation of student's diverse backgrounds and interests in the program. Graduates from the program will demonstrate the ability to conduct independent research regarding natural resources and management of problems essential to sustainable development. The M.S. in NRE challenges students to bridge the distance between science and application, focusing not only on firm understanding of social and natural sciences, but on research methods, technology, and the regulatory structure overarching natural resource management and environmental decision making. Students may focus on areas of specialization including aspects of environmental science and management, the human dimension of natural resources, and sustainability. This program provides students with the tools and skillset to emerge as problem solvers and leaders in natural resource management, protection and sustainability.

Admission Requirements

Applicants for the M.S. in NRE should follow the admissions process described in this catalog or at the Graduate Admissions website at www.marshall.edu/admissions/graduate. All admission materials must be sent directly to the Graduate Admissions Office. Applicants must also submit a letter of recommendation from an academic or professional reference, and a written statement of educational and professional goals.

Applicants must have a minimum undergraduate GPA of 2.9. Applicants demonstrating potential but not meeting the admission criteria may be admitted to the M.S. program with permission from the NRE faculty.

Graduation Requirements

M.S. candidates must meet the general requirements for Graduate Studies and complete a thesis with a minimum of 36 total credits. Of the 36 credit hours required for the M.S., at least 18 credits must be at the 600-level and at least 21 credits must be NRE courses as described in the Plan of Study. Electives from other departments may be taken to complement the NRE course requirements, with permission of the NRE graduate advisor and course instructor.

Students will be required to submit a Plan of Study form signed by an advisor and two additional faculty members (Thesis committee) to Graduate Studies after their first semester. Students must hold one Thesis committee meeting in their first year and each semester thereafter. All other requirements such as "master thesis" and "final oral presentation" will follow the guidelines by the Marshall University Graduate Studies and the M.S. NRE program.

Each student's plan of study in NRE will include core classes from the department supplemented with additional coursework from supporting areas. Generally, the required 36 hours for completion will include thesis (8 hours of NRE 681) and a seminar series (4 hours total from NRE 540, 560, 640, 660, which are 1 credit hour each). The additional coursework will include 3 core classes for the discipline (9 hours). Each program of study will include a management/regulation (MR) course (3 hours), an applied research methods or instrumentation (MI) course (3 hours, may have lab hours) and an appropriate statistics course (3 hours). Courses meeting the MR and MI requirements are listed in the Plan of Study, although others may be utilized to meet these requirements at the graduate committee's discretion. Statistics courses meeting the third core course requirement may be selected from those shown in the Plan of Study.

Plan of Study

Code	Title	Credit Hours
NRE 540	Seminar I	1
NRE 560	Seminar II	1
NRE 640	Seminar III	1
NRE 660	Seminar IV	1
Management/Regulation		3
<i>Select 3 hours from among:</i>		
NRE 525	Water Policy & Regulations	
ES 665	Water Resources Management	
NRRM 501	Admin Parks & Recreation	
NRRM 511	Rec Areas & Facilities	
NRRM 530	Environmental Interpreta	
Applied Research Methods/Instrumentation		3
<i>Select 3 hours from among:</i>		
NRE 531	Aqua Toxicology	
NRE 500	Soil Fertility/Plant Nutrition	
BSC 501	Ichthyology	
BSC 521	Phycology	
NRRM 502	Assess & Eval Rec Service	
NRRM 551	Plan Design OHV Trails	
NRRM 522	Ther Rec Institu Settings	
Statistics¹		3
<i>Select 3 hours from among:</i>		
STA 512	Regression Analysis	
STA 513	Experimental Designs	
STA 518	Biostatistics	
STA 520	Nonparametric Statistics	
STA 535	Statistical Data Mining	
STA 545	Probability and Statistics I	
STA 634	Stat Mtds for Researchers	
STA 661	Adv Math Statistics	

STA 662	Appl Multivariate Stat Methods	
STA 663	Time Series Forecasting	
NRE 681	Thesis	8
500-level electives ¹		9
600-level electives ¹		6
Total Credit Hours		36

¹ If the Statistics class is 500 level, then one of the 500-level electives must be replaced with a 600-level elective. At least 18 hours of the 36 total must be 600-level.