

# Natural Resources (MS)

## Degree Requirements

Students may choose from the degree options below to complete coursework within a focus area.

**Degrees earned will be distributed as: "Master of Science in Natural Resources" without option specifications.**

## Core Requirements

Code	Title	Hours	Counts towards
<b>Required Courses</b>		<b>10</b>	
NR 500	Natural Resource Management		
NR 571	Current Issues in Natural Resource Policy		
NR 601	Graduate Seminar <sup>1</sup>		
Select a graduate-level Statistics courses in conjunction with the academic committee			
<b>Additional Courses</b>		<b>20</b>	
"Additional Courses" are approved in conjunction with the academic committee to meet 30 total hours (may select a Technical Option listed below)			
NR 695	Master's Thesis Research		
<b>Total Hours</b>		<b>30</b>	

<sup>1</sup> Equivalent seminar course may be accepted determined in conjunction with the academic committee.

## Technical Options

### Assessment and Analysis

This option allows students to develop a project incorporating field course components with decision making tools and the opportunity to develop depth in a specific subject matter focus. Focused on planning and conservation processes and efforts, the option aims to hone the abilities of people who will function as part of NEPA process teams, NGOs aiming to preserve and protect land and its biodiversity, or professionals performing Phase I, protected species investigations, and related assessment roles.

### Ecological Restoration

This option prepares students to assist in the recovery of ecosystems that have been degraded, damaged, or destroyed. This requires extensive knowledge of the abiotic environments that sustain the biota of ecosystems, community structure, sustainable cultural practices, and performance monitoring, among other skills. Emphasis is on the actual craft of restoring natural ecosystems, and the social and philosophical elements that mandate restoration.

## Economics and Management

Economics and Management option graduate students study the trade-offs associated with how society interacts with natural resources in order to assess and improve natural resource policy and management. Students focus on trade-offs at many different spatial and temporal scales. Examples include non-market valuation of ecosystem services, optimal management of forest stands with changing climate, carbon and market consequences of using biomass energy, sustainable development and long-term projections of ecological and economic sustainability.

## GIS

This option provides students with a thorough background in the spatial sciences including spatial modeling, remote sensing, geographic information systems, and spatial databases. Students completing this option will be prepared for positions in a variety of federal agencies such as the USDA Forest Service, EPA, NOAA, or Corps of Engineers; with state agencies; with regional or local planning organizations; and with private consulting firms.

## Hydrology

This option promotes understanding the hydrologic processes of watersheds and wetlands and prepares students for conducting hydrologic studies and directing watershed management programs. Courses also focus on water resources policy and regulation. Students are prepared for positions with private consulting firms as well as with many other public and private organizations that deal with the hydrologic impacts of land use and climate change.

## International Resources

This option is designed to enhance students' understanding of international forestry and natural resource management and to prepare them for careers abroad or with internationally oriented institutions and companies in the US. Courses in this option are taught in several different departments and provide a broad background with rigorous technical emphases.

## Landscape Architecture

This option is a non-thesis professional degree program. Students who complete all courses required for the technical option will receive a Master of Landscape Architecture and the Natural Resources Landscape Architecture with the Technical Option, curriculum code (NRD). No previous LAR degree is required. Students who are interested in becoming physical planners in municipalities, federal government, park and recreation planning as well as housing development and transportation planning will require a first professional degree in landscape architecture and are primary candidates for this second degree in the natural resources.

## Outdoor Recreation

This technical option develops the knowledge and skills needed for planning and managing natural resource-based outdoor recreation opportunities and resources. Students are prepared for positions with federal, state, regional, county and municipal parks, recreation and land management agencies as well as with private firms and non-profit organizations.

## Policy and Administration

This option develops knowledge and skills about policy processes and sciences, public and private organizations, natural resource law and

policy, public governance and involvement, and their applications to natural resource management and conservation.

## Faculty

Robert Carroll Abt

Aziz Amoozegar

Carla E. Barbieri

Robert E. Bardon

Jason N. Bocarro

Kofi Malik Boone

Caren Beth Cooper

Frederick Willis Cubbage

Myron Fran Floyd

Andrew Alan Fox

Douglas J. Frederick

Khara Deanne Grieger

John L. Havlin

George R. Hess

Fikret Isik

John S. King

Yu-Fai Leung

Ross Kendall Meentemeyer

Mark Arthur Megalos

Stacy Arnold Charles Nelson

Elizabeth Guthrie Nichols

Markus Nils Peterson

Joseph Peter Roise

Robert Michael Scheller

Erin Lynn Seekamp

Erin Odonnell Sills

Kurt Smith

Michael John Vepraskas

Kevin M. Potter

Marcelo Luise Ardon Sayao

Gary B. Blank

Gene Leroy Brothers

Bethany Brooke Cutts

Jason Aaron Delborne

Michael B. Edwards

Ryan E. Emanuel

Christopher Galik

Madhusudan Vithal Katti

Fernando H. Magallanes

Duarte B. Morais

Theodore Henry Shear

Mirela Gabriela Tulbure

Candace Goode Vick

Rachel Louise Cook

Ayse Ercumen

Jodi Anne Forrester

Joshua Michael Gray

Jordan Kern

Lincoln Ray Larson

Zakiya Holmes Leggett

Katherine Lee Martin

Rajan Parajuli

Leah Rathbun

Louie Rivers

Kathryn Tate Stevenson

Jelena Vukomanovic

Jennifer Richmond Bryant

Stephanie Breard Jeffries

Laura Gray Tateosian