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

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
<th>Counts towards</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Required Courses</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>NR 500</td>
<td>Natural Resource Management</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NR 571</td>
<td>Current Issues in Natural Resource Policy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NR 601</td>
<td>Graduate Seminar</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select a graduate-level Statistics courses in conjunction with the academic committee</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Additional Courses

“Additional Courses” are approved in conjunction with the academic committee to meet 30 total hours (may select a Technical Option listed below)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NR 695</td>
<td>Master's Thesis Research</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total Hours</td>
<td>30</td>
</tr>
</tbody>
</table>

1 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
Michael John Vepraskas
Kevin M. Potter
Marcelo Luise Ardon Sayao
Gary B. Blank
Gene Leroy Brothers
Bethany Brooke Cutts
Jason Aaron Delbert

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 Breed Jeffries
Laura Gray Tateosian