NATURAL RESOURCES: FORESTRY (M.S.)

https://colsa.unh.edu/natural-resources-environment/program/ms/natural-resources-forestry

Description

NATURAL RESOURCES: FORESTRY

Students in the Forestry option typically have an undergraduate degree in forestry or natural resource management. These degrees are specifically designed to meet the accreditation standards of a professional society. Those without this background may need to complete some additional coursework as part of their MS program. Areas of interest include forest resource economics and management, biometrics/measurements, forest health, forest ecosystem dynamics, and spatial data analysis (remote sensing and GIS).

Requirements

Degree Requirements

An M.S. degree is conferred upon successful completion of a program of not less than 30 credits for natural resources and the environment options: forestry, environmental conservation and sustainability, environmental economics, ecosystem science, and wildlife and conservation biology.

Course Requirements or Equivalents

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>Select one of the following: 1</td>
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<tr>
<td>NR 903</td>
<td>Approach to Research</td>
<td>4</td>
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<tr>
<td>&amp; NR 905</td>
<td>and Grant Writing</td>
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<tr>
<td>or NR 903</td>
<td>Approach to Research</td>
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<td>&amp; BIOL 902</td>
<td>and Writing and Publishing Science</td>
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<tr>
<td>or NR 903</td>
<td>Approach to Research</td>
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<tr>
<td>&amp; BIOL 950</td>
<td>and Scientific Communication</td>
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<tr>
<td>NR 993</td>
<td>Natural and Environmental Resources Seminar</td>
<td>2</td>
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<tr>
<td>NR 996</td>
<td>Natural Resource Education</td>
<td>2</td>
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<tr>
<td>or LSA 900</td>
<td>College Teaching</td>
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Select one of the following Data Analysis courses: 1

- ANFS 933 Design, Analysis, and Interpretation of Experiments
- BIOL 811 Experimental Design & Analysis
- DATA 800 Introduction to Applied Analytic Statistics
- ECON 926 Econometrics I
- EDUC 904 Qualitative Inquiry in Research
- ESCI 801 Quantitative Methods in Earth Sciences
- MATH 835 Statistical Methods for Research
- MATH 840 Design of Experiments I
- MATH #969 Topics in Probability and Statistics I
- NR 909 Analysis of Ecological Communities and Complex Data
- PSYC 905 Introduction to Statistical Analysis
- PSYC 907 Research Methods and Statistics III
- SOC 901 Sociological Methods I: Intermediate Social Statistics
- SOC 903 Sociological Methods III: Advanced Social Statistics
- SOC 904 Sociological Methods IV: Qualitative and Historical Research Methods

Select one of the following:

- NR 899 Master’s Thesis (and a formal presentation of the thesis) 2
- NR 998 Directed Research (and directed research results) 3

1 Or other alternative with approval from the Graduate Coordinator.
2 The thesis option will provide a research-based thesis that is the foundation for a peer-reviewed publication.
3 The directed research option shall consist of a project, designed and conducted by the student, culminating in a scholarly paper or report that is suitable for publication in the respective field of scholarship.

An approved program of study plan is required during the first semester.

Student Learning Outcomes

Key Learning Objectives:

- Knowledge and skills outcomes to ensure graduates of the MS program have mastered their discipline: demonstrate knowledge of theory and practice, as well as critical thinking skills and creativity, in conducting ecological, economic, and policy assessment of natural resource and environmental issues and developing solutions to environmental problems;
- successfully employ the field, laboratory, data analysis, and social science skills necessary to perform research concerning natural resources and their management;
- design, propose, and execute research addressing fundamental or critical issues in natural resources;
- contribute to scholarship through publication and presentation of research findings using diverse media.

Professional outcomes to ensure graduates of the MS program successfully compete for jobs in the public and private sectors:

- demonstrate mastery of theory and empirical knowledge in their research concentration and, more generally, in the relevant natural and/or social;
- use written and oral skills to communicate effectively with colleagues, stakeholders, and the public;
- integrate theory and practice to analyze, assess, and solve environmental and social problems and answer questions across diverse scales from local to global;
- develop and employ interdisciplinary relationships and approaches to addressing environmental issues;
- interact with professional peers honestly and ethically, and in ways that show cultural sensitivity, inquisitiveness, and propensity for teamwork.