NATURAL RESOURCES: SOIL AND WATER RESOURCE MANAGEMENT (M.S.)

https://colsa.unh.edu/nren/natural-resources/natural-resources-ms

Description

NATURAL RESOURCES: SOIL AND WATER RESOURCE MANAGEMENT

Areas of interest include the ecology, microbiology and biogeochemistry of soils, groundwaters, and surface waters, with an emphasis on how the different components of an ecosystem interact to produce system-level responses to management, global change, and other perturbations. Understanding controls on carbon storage, nutrient transformations, and greenhouse gas emissions is central to much of the research conducted by students in this option. Career trajectories of graduates include private sector environmental consulting, government agencies with a mandate for environmental protection or land management, and research scientist in both the academic and private sectors.

Requirements

Degree Requirements

An M.S. degree is conferred upon successful completion of a program of not less than 30 credits for natural resources options: forestry, environmental conservation, environmental economics, general, soil and water resource management, 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>EDUC 904</td>
<td>Qualitative Inquiry in Education (Policy oriented)</td>
<td>4</td>
</tr>
<tr>
<td>Or</td>
<td>NR 903 Approach to Research</td>
<td>2</td>
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<tr>
<td>And with NR 903, choose one of the following additional research methods classes for a total of 4 credits:</td>
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<tr>
<td>NR 905</td>
<td>Grant Writing</td>
<td>2</td>
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<tr>
<td>BIOL 902</td>
<td>Writing and Publishing Science</td>
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<tr>
<td>BIOL 950</td>
<td>Scientific Communication</td>
<td></td>
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<td>Or an alternative with approval from the Graduate Coordinator</td>
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<tr>
<td>NR 993</td>
<td>Natural and Environmental Resources Seminar</td>
<td>1-2</td>
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<tr>
<td>or NR 947</td>
<td>Current Issues in Ecosystem Ecology</td>
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<tr>
<td>NR 996</td>
<td>Natural Resource Education (1 credit)</td>
<td>1-2</td>
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<tr>
<td>or LSA 900</td>
<td>College Teaching</td>
<td></td>
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<tr>
<td>Select one of the following Quantitative methods courses:</td>
<td>3-4</td>
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<tr>
<td>BIOL 811</td>
<td>Applied Biostatistics II</td>
<td></td>
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<tr>
<td>BIOL 933</td>
<td>Design, Analysis, and Interpretation of Experiments</td>
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<tr>
<td>DATA 800</td>
<td>Introduction to Applied Analytic Statistics</td>
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<tr>
<td>ECON 926</td>
<td>Econometrics I</td>
<td></td>
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<tr>
<td>ESCI 801</td>
<td>Quantitative Methods in Earth Sciences</td>
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<tr>
<td>MATH 835</td>
<td>Statistical Methods for Research</td>
<td></td>
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<tr>
<td>MATH 840</td>
<td>Design of Experiments I</td>
<td></td>
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<tr>
<td>MATH 969</td>
<td>Topics in Probability and Statistics I</td>
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<tr>
<td>NR 909</td>
<td>Analysis of Ecological Communities and Complex Data</td>
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<tr>
<td>NR 913</td>
<td>Quantitative Ecology</td>
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<tr>
<td>POLT 905</td>
<td>Introduction to Statistical Analysis</td>
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<tr>
<td>PSYC 905</td>
<td>Research Methodology and Statistics I</td>
<td></td>
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<tr>
<td>PSYC 907</td>
<td>Research Methods and Statistics III</td>
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<td>SOC 901</td>
<td>Sociological Methods I: Intermediate Social Statistics</td>
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<tr>
<td>SOC 903</td>
<td>Sociological Methods III: Advanced Social Statistics</td>
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<tr>
<td>SOC 904</td>
<td>Sociological Methods IV: Qualitative and Historical Research Methods</td>
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<td>Or an alternative with approval from the Graduate Coordinator</td>
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<tr>
<td>NR 899</td>
<td>Master’s Thesis (and a formal presentation of the thesis)</td>
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<tr>
<td>NR 998</td>
<td>Directed Research (and directed research results)</td>
<td>4</td>
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1 The thesis option will provide a research-based thesis that is the foundation for a peer-reviewed publication.
2 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.