PROGRAM: Natural Resources Curriculum

Mission: Provide an academic foundation & framework that allows students to define & pursue planned & emergent interests according to their personal & professional goals. Our breadth of educational opportunities engages students in building a knowledge & skill set with a concentration in ecological dimensions (Resource Ecology), or social science dimensions (Resource Planning), or an integration of the two dimensions (Integrated Natural Resources) of environment & natural resources.

OPTION: Integrated Natural Resources

Learning Outcomes. Students in Integrated Natural Resources will

- Create & complete a program of study that includes clear learning objectives & learning outcomes for conceptual foundations & applications pertinent to natural resources & environment that (1) are distinct from other majors in the Rubenstein School, (2) locate the program of study in the context of systems or processes that encompass the intersection of social & ecological dimensions of natural resources & environment, & (3) contain an integrative component that addresses the intersection of ecological & social dimensions of natural resources & environment.
- Demonstrate proposal writing skills through a proposal that explains clearly a program of study for review, input, and approval by a committee of 3 faculty members.

Catalogue Description: Integrated Natural Resources (INR) is a self-designed major. For students who have strong interests in natural resources and the environment, clear academic direction, and the motivation to develop a well-focused, personally meaningful course of study, INR is the right choice. Working closely with a faculty advisor, the student builds on a foundation of natural resources courses to create an individualized program that combines course work from disciplines within and outside the School. A total of 120 credits are required for the degree. Required courses (minimum 9 credits): Students elect from a list of approved courses at least one course in each of three areas – biology/ecology; natural resources, social sciences and communications; and quantitative and analytical methods. These courses are in addition to those taken to fulfill RSENR general education requirements. Any course substitution request should be approved prior to the end of the add/drop period for the semester in which the student enrolls in the course.

Degree Requirements:
All students who enroll in the Natural Resources Curriculum must meet the following requirements for graduation:
1. Completion of the RSENR core curriculum courses.
2. Completion of the RSENR general education course requirements.
3. Completion of a minimum of 120 semester hours of courses with a cumulative grade-point average of 2.0 or above.

Option requirements for Integrated Natural Resources:

Required courses (minimum of 9 credits):

Students elect at least one course in each of three areas from a list of approved courses (see next page). The areas are:

1. Biology/ecology
2. NR social sciences & communications
3. Quantitative and analytical methods

Individulized Program of Study: The student develops an individualized program of study that establishes objectives & defines 39 credits of course selection for their last four semesters. Courses must be consistent with objectives established in the program of study. At least 24 credits must have an ENVS, ENSC, FOR, NR, RM or WFB prefix. Up to 6 credits may be below the 100 level. With careful selection of courses, students have developed such concentrations as Environmental Education, Sustainability and Resource Management, Energy & Environmental Management, Environment & Human Health, Spatial Analyses of Natural Resources.

All programs of study must be endorsed by the advisor, and then approved by the faculty. If not approved, the student may not continue in the INR option and must seek another major. The program of study is to be completed by the end of the sophomore year (60 credits). Transfer students with more than 60 credits must have a program of study approved as part of the transfer application. It is expected that these students will be active in the program for at least two years (four semesters) after transferring into the INR option.
INTEGRATED NATURAL RESOURCES OPTION
Courses That Can Fulfill the Required Courses Requirement

These courses are **IN ADDITION TO** the RSENR Core & General Education course work & may not be double counted for these purposes.

1. **Biology/ecology**
   Courses that may be used to meet the requirements in this area include courses such as:
   - BIOL 001 or 002  Principles of Biology
   - BCOR 011 or 012  Exploring Biology
   - BOT 004  Introduction to Botany
   - FOR 021  Dendrology
   - FOR 235  Forest Ecosystem Health
   - NR 260  Wetlands Ecology
   - NR 280  Stream Ecology
   - WFB 130  Ornithology
   - WFB 232  Ichthyology
   - WFB 279  Marine Ecology & Conservation

   See the list of Resource Ecology Option Electives for other possible courses.

2. **Natural resources social sciences and communications**
   Courses that may be used to meet the requirements in this area include courses such as:
   - CDAE 061  Principles of Community Development
   - CDAE 002  World Food, Population, & Development
   - ENVS 001  Introduction to Environmental Studies
   - ENVS 002  International Environmental Studies
   - ENVS 293  Environmental Law
   - ENVS 294  Environmental Education
   - NR 141/ENVS 141  Ecological Economics
   - NR 153/ENVS 142  Introduction to Environmental Policy
   - NR 235  Legal Aspects of Environmental Planning
   - NR 254  Advanced Natural Resource Policy
   - NR 262  International Problems in Natural Resources
   - NR 275  Natural Resource Planning
   - RM 235  Outdoor Recreation Planning
   - RM 255  Environmental Interpretation

   See the list of Resource Planning Content Option Electives for other courses.

3. **Quantitative and analytical methods**
   Courses that may be used to meet the requirements in this area include courses such as:
   - CDAE 101  Computer Aided Drafting and Design
   - CS 021  Computer Programming I
   - CS 087/STAT 087  Introduction to Data Science
   - NR 025  Measurements & Mapping
   - NR 140  Applied Environmental Statistics (may not double count for Gen Ed requirement)
   - NR 143  Introduction to Geographic Information Systems
   - NR 245  Integrating GIS & Statistics
   - GEOG 081  Geotechniques
   - GEOG 184  Geographic Info: Concepts and Applications
   - NR/FOR 146  Remote Sensing of Natural Resources

   Other statistics/math courses **in addition to** General Education requirements

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