

**REQUIREMENTS FOR CATALOGUE EDITIONS STARTING 2017**  
**RUBENSTEIN SCHOOL OF ENVIRONMENT & NATURAL RESOURCES**  
**UNIVERSITY OF VERMONT**

Approved by the Natural Resources Curriculum Faculty Spring 2017

**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.
4. Completion of option requirements for Resource Planning, Resource Ecology, or Integrated Natural Resources.

**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

**Individualized 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 1
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 <b>in addition to</b> General Education requirements	

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