

## FORESTRY PROGRAM

<https://www.uvm.edu/rsenr/forestry>

The Forestry Major trains students to meet the needs of the 21st century, which include managing forests for resilience, adaptation, and climate mitigation. The program attracts students who want a career working outdoors, excel at math and science, learn by doing, and can embrace both the fundamentals of traditional forestry and emerging perspectives in the field. The Forestry major provides students with an education in ecologically responsible forestry, emphasizing the complex landscapes of the northeastern United States, while also stressing global context and change. Students develop the ability to coordinate and manage all aspects of sustainable forestry through an education that combines a strong foundation in natural and social sciences with hands-on field classes, internships, research experience, and forest management projects.

### MAJORS

#### FORESTRY MAJOR

Forestry B.S.

### MINORS

#### FORESTRY MINOR

Forestry

### Courses

#### **FOR 1010. Forest Conservation. 3 Credits.**

Introduction to the ecology and management of American forests: forest distribution, ownership, and ecological factors, species interactions, multi-resource management goals, and silvicultural practices. Cannot be taken by Junior/Senior-level Rubenstein School of Environment and Natural Resources students. Catamount Core: SU.

#### **FOR 1090. Introduction to Forestry. 1 Credit.**

For First-year and Sophomore students interested in Forestry. An introduction to the curriculum, the breadth of the field of study, and career options. Includes interactions with faculty, Graduate students, practitioners, and forestry professionals to understand the benefits of a career in Forestry.

#### **FOR 1210. Dendrology. 0 or 4 Credits.**

Classification, silvical characteristics, and identification features of native and introduced trees and shrubs.

#### **FOR 1990. Special Topics. 1-18 Credits.**

See Schedule of Courses for specific titles.

#### **FOR 1991. Internship. 1-3 Credits.**

On-site supervised work experience combined with a structured academic learning plan directed by a faculty member or a faculty-staff team in which a faculty member is the instructor of record, for which academic credit is awarded. Offered at department discretion.

#### **FOR 1993. Independent Study. 1-18 Credits.**

A course which is tailored to fit the interests of a specific student, which occurs outside the traditional classroom/laboratory setting under the supervision of a faculty member, for which credit is awarded. Offered at department discretion.

#### **FOR 2110. Nat Res Ecol and Assessment 1. 0 or 4 Credits.**

Basic, essential field and assessment skills; knowledge needed in upper-level classes and jobs in forestry, wildlife, fisheries, or natural resources.

#### **FOR 2120. Nat Res Ecol and Assessment 2. 4 Credits.**

Introduces concepts and skills important for assessing forest ecosystem structure and functioning to inform forest management and other natural resource conservation decisions.

#### **FOR 2220. Forest Ecosystem Analysis. 4 Credits.**

An integrated field course that focuses on acquiring skills to investigate, through quantification and interpretation, the flora, fauna, and abiotic components (soils, physiography, water, and microclimate) of forest ecosystems. Also covers consulting forestry, timber markets, industrial and family forestry, forest roads, timber inventory, and visits wood processing facilities. Prerequisite: FOR 3330.

#### **FOR 2570. Wildland Fire. 3 Credits.**

In recent decades, wildfire activity, damages attributed to wildfires, and costs of managing wildfires have increased substantially. Examines various aspects of wildland fire with a primary focus on forested ecosystems in North America. Content includes concepts around fire terminology, ecology, and behavior, as well as the structure of wildland firefighting and prescribed fire programs. Explores historic fire regimes in North America, major causes of disruption to these regimes, and barriers to restoration.

#### **FOR 2990. Special Topics. 1-18 Credits.**

Readings, investigations, and lectures in selected forest resource subjects.

#### **FOR 2991. Internship. 1-18 Credits.**

On-site supervised work experience combined with a structured academic learning plan directed by a faculty member or a faculty-staff team in which a faculty member is the instructor of record, for which academic credit is awarded. Offered at department discretion.

#### **FOR 2993. Independent Study. 1-18 Credits.**

A course which is tailored to fit the interests of a specific student, which occurs outside the traditional classroom/laboratory setting under the supervision of a faculty member, for which credit is awarded. Offered at department discretion.

#### **FOR 2994. Teaching Assistantship. 1-3 Credits.**

Undergraduate student service as a teaching assistant, usually in an introductory-level course in the discipline, for which credit is awarded. Offered at department discretion.

#### **FOR 2995. Undergraduate Research. 1-18 Credits.**

Undergraduate student work on individual or small research projects under the supervision of a faculty member, for which credit is awarded. Offered at department discretion.

**FOR 3230. Multi-Resource Silviculture. 4 Credits.**

Theory and application of forest stand maintenance/manipulation for forest ecosystem sustainability. Topics: Silvics, regeneration, tree improvement, protection, stand structure/dynamics/tending, and multi-resource perspectives. Prerequisite: NR 2030.

**FOR 3330. Woodlot Mgt & Forest Ops. 0 or 4 Credits.**

Introduction to the knowledge and skills required for serving forest management needs of small properties in New England and beyond, as well as logistics and regulations relating to forest management business and operations. Prerequisite: FOR 3230.

**FOR 3350. Forest Ecosystem Health. 3 Credits.**

An introduction to the biotic and abiotic factors affecting the health of forest ecosystems including insects, pathogens, pollutants, and other large-scale disturbances, and will address the linkages between forest health and climate change. Prerequisite: Minimum Junior standing.

**FOR 3890. Forestry Work Practicum. 1-9 Credits.**

Supervised work experience in forest resource area.

**FOR 3990. Special Topics. 1-18 Credits.**

Advanced special topics courses or seminars in forestry beyond the scope of existing formal courses. Prerequisites: Minimum Junior standing; Instructor permission.

**FOR 3991. Internship. 1-18 Credits.**

On-site supervised work experience combined with a structured academic learning plan directed by a faculty member or a faculty-staff team in which a faculty member is the instructor of record, for which academic credit is awarded. Offered at department discretion.

**FOR 3993. Independent Study. 1-18 Credits.**

A course which is tailored to fit the interests of a specific student, which occurs outside the traditional classroom/laboratory setting under the supervision of a faculty member, for which credit is awarded. Offered at department discretion.

**FOR 3994. Teaching Assistantship. 1-3 Credits.**

Undergraduate student service as a teaching assistant, usually in an introductory-level course in the discipline, for which credit is awarded. Offered at department discretion.

**FOR 3995. Undergraduate Research. 1-18 Credits.**

Undergraduate student work on individual or small research projects under the supervision of a faculty member, for which credit is awarded. Findings submitted in written form as prescribed by department. Offered at department discretion Prerequisite: Senior standing.

**FOR 3996. Honors. 1-6 Credits.**

Honors project dealing with the biology and/or management of forest ecosystems. See Program Chair.

**FOR 4720. Sustain Mgmt Forest Ecosys. 4 Credits.**

Principles of long-term planning and plan implementation in support of sustainable forestry; Adaptive management; biodiversity and ecosystem health; major management planning project. Prerequisites: FOR 2220, NR 3050, FOR 3230.

**FOR 4990. Special Topics. 1-18 Credits.**

See Schedule of Courses for specific titles.

**FOR 4996. Honors. 1-6 Credits.**

Honors course.