FORESTRY PROGRAM

http://www.uvm.edu/rsenr/?Page=undergraduate/forestry.html&SM=undergradmenu.html

The Forestry Major trains students to meet the needs of the 21st century, which include managing forests for resilience, adaptation, and climate mitigation. Guided by the Green Forestry Education Initiative principles (http://www.uvm.edu/rsenr/greenforestry/), students learn how to tackle the ever increasing demands and pressures placed on the world’s forests while sustaining the many services forest ecosystems provide. 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 001. 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.

FOR 013. Intro to Wildlife Tracking. 1 Credit.
This outdoor course is designed to introduce the student to wildlife track identification and analysis at the UVM Jericho Research Forest. Cross-listed with: WFB 013.

FOR 014. Wildlife Trail Analysis. 1 Credit.
This outdoor course is designed to introduce the student to analysis and interpretation of wildlife trails at the UVM Jericho Research Forest. Cross-listed with: WFB 014.

FOR 015. Wildlife Track Analysis. 1 Credit.
This course introduces students to the details and clues left inside animal tracks including major body movements including speed, changes of direction and head position. Cross-listed with: WFB 015.

FOR 021. Dendrology. 0 or 4 Credits.
Classification, silvical characteristics, and identification features of native and introduced trees and shrubs.

FOR 073. Small Woodland Management. 3 Credits.
Concepts of forest ecology, resource inventory, cultural practices, and multiple use management for small woodland areas.

FOR 081. Forestry Seminar. 1 Credit.
Readings and discussions introducing current issues in forestry. Prerequisite: Rubenstein School of Environment and Natural Resources students only.

FOR 121. Forest Ecology Laboratory. 0 or 2 Credits.
Application of ecological principles in the analysis of forest communities. Prerequisite: FOR 021.

FOR 122. Forest Ecosystem Analysis. 4 Credits.
An integrated field course to investigate, through quantification and interpretation, the flora, fauna, and abiotic components (soils, physiography, water, and microclimate) of a selected forest ecosystem. Prerequisites: FOR 121, NR 140.

FOR 146. Remote Sensing of Natural Res. 0 or 3 Credits.
Cross-listed with: NR 146, GEOG 185. Identification, interpretation, measurement, and mapping of natural resources from aerial photographs and satellite imagery. Labs include air photo interpretation and digital image analysis. Prerequisite: Junior standing. Alternate years.

FOR 152. Forest Resources Values. 3 Credits.
History, methods, and current issues associated with the nonmarket and market values of forest-based resources, including aesthetics, wildlife, recreation, water, and timber. Prerequisite: EC 012 or CDAE 061. Cross-listed with: PRT 152.

FOR 182. Advanced Forestry Seminar. 1 Credit.
In-depth examination of contemporary issues in forestry. Prerequisite: Junior standing in Forestry. Credit arranged.

FOR 185. Undergrad Special Topics. 0-6 Credits.
Readings, investigations, and lectures in selected forest resource subjects. Credit arranged.

FOR 191. Forestry Work Practicum. 1-9 Credits.
Supervised work experience in forest resource area. Credit arranged.

FOR 192. Forestry Work Practicum. 1-9 Credits.
Supervised work experience in forest resource area.

FOR 195. Special Topics. 0-18 Credits.
Readings, investigations, and lectures in selected forest resource subjects.

FOR 222. Advanced Silviculture. 0 or 3 Credits.
Scientific basis and contemporary status of silviculture practices. Prerequisite: FOR 223. Alternate years, 2000-01.
FOR 223. Multi-Resource Silviculture. 0 or 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 103.

FOR 225. Tree Structure & Function. 3 Credits.
Basic anatomy and physiology of trees and other woody plants, emphasizing their unique structural and physiological adaptations to the environment. Prerequisite: Instructor permission.

FOR 228. Ecosystems Ecology. 3 Credits.
Examination of the structure and function of terrestrial ecosystems focusing on carbon and nutrient cycles. Laboratory sessions involve spatial modeling and data analysis. Prerequisites: CHEM 031, CHEM 032, NR 103 and either NR 143 or NR 146. Cross-listed with: NR 228.

FOR 235. Forest Ecosystem Health. 4 Credits.
Forest health is a broadly defined, emerging discipline in forestry and ecology that examines the agents and processes affecting tree and forest decline. Prerequisites: NR 103, BIOL 001 and BIOL 002 or PBIO 004, FOR 021.

FOR 272. SU:Sustain Mgmt Forest Ecosys. 0 or 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 122, NR 205, FOR 223.

FOR 275. Forest Watershed Management. 0 or 3 Credits.
Concepts of forest hydrology and forest watershed management; emphasis on natural processes and impacts of quantity, quality, and seasonal distribution of flow from watersheds. Prerequisite: NR 102.

FOR 285. Advanced Special Topics. 0-6 Credits.
Advanced special topics courses or seminars in forestry beyond the scope of existing formal courses. Credit as arranged.

FOR 291. Senior Research. 3 Credits.
Work on research problem under direction of a staff member. Findings submitted in written form as prescribed by department. Prerequisite: Senior standing.

FOR 292. Senior Research. 3 Credits.
Work on research problem under direction of a staff member. Findings submitted in written form as prescribed by department. Prerequisite: Senior standing.

FOR 295. Advanced 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 299. Honors. 1-6 Credits.
Honors project dealing with the biology and/or management of forest ecosystems. See Program Chair.