

NATURAL RESOURCES (NR)

Courses

NR 001. Natural Hist & Human Ecology 1. 0 or 4 Credits.

Integrates the science of ecology and the science of humans and society to understand the relationship between the natural landscape? s effects on society and social organization, and society's effects on the natural landscape.

NR 002. Natural Hist & Human Ecology 2. 0 or 4 Credits.

Integrates the science of ecological sciences and the science of humans and society to understand the relationship between the natural landscape?s effects on society and social organization, and society's effects on the natural landscape.

NR 006. D1:Race & Culture in NR. 0 or 3 Credits.

Introduces First-year students to issues of race and culture and their relevance to society, natural resources, and the environment.

NR 009. SU:VT: Natural & Cultural Hst. 0 or 4 Credits.

Introduction to the Vermont landscape that combines elements of natural history, field ecology, and environmental history. Students visit locations around the Champlain Valley as they build observational skills, study natural systems, and examine past and present human relationships with nature.

NR 015. Ecology of Place. 1 Credit.

Opportunities for first-time residents of GreenHouse Residential Learning Community to deepen their sense of place through participation in a diversity of environmental explorations.

NR 016. Ecological Citizenship. 1 Credit.

Provides members of the GreenHouse Residential Learning Community with opportunities to pursue ecological interests and community service projects with mentorship from GreenHouse staff members. Prerequisite: NR 015.

NR 021. Speaking and Listening. 2 Credits.

Course aids students in learning to speak, listen and critique public speaking. Different delivery styles focus on relevant environmental and natural resource topics.

NR 061. SU:Foundations of PBE. 3 Credits.

Introduces the principles and practices of place-based education. Students learn to design place-based curriculum and educative materials from an interdisciplinary analysis of specific places. Cross-listed with: EDTE 061.

NR 090. 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.

NR 092. 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.

NR 095. Introductory Special Topics. 1-18 Credits.

Introductory topics in environmental and natural resource issues beyond the scope of exiting courses.

NR 099. Aiken Scholars Seminar. 1 Credit.

Seminar discussions on current environment issues. Guest speakers and field trips. Prerequisite: Open only to First-Year Aiken Scholars.

NR 102. SU:Water as a Natural Resource. 3 Credits.

Uses of water resources and impacts on aquatic systems and human society. Prerequisites: Minimum Sophomore standing.

NR 103. Ecology, Ecosystems & Environ. 3 Credits.

Major ecological concepts and their application. Analysis of form, structure, and function of organisms, populations, communities, ecosystems, and landscapes. Prerequisite: Minimum Sophomore standing; restricted to Ecological Agriculture, Environmental Science, Environmental Studies, Forestry, Natural Resources, Parks, Recreation & Tourism, and Wildlife and Fisheries Biology majors.

NR 104. Social Proc & the Environment. 3 Credits.

Social science theories and their application to environmental issues. Analysis of issues using theories of government, economics, and social movements. Emphasis on integrating frameworks to analyze environmental issues. Prerequisite: NR 002.

NR 107. SU:Human Health & the Envirmt. 3 Credits.

Offers an introduction to environmental health. Topics include: methods (toxicology, epidemiology), environmental health hazards (physical, biological, chemical) and supports (nature contact), risk analysis, communication and management, health and climate change, food production and access, energy production, and water. Prerequisite: Sophomore standing. Cross-listed with: ENVS 107, HLTH 107.

NR 137. Landscape Design Fundamentals. 0 or 4 Credits.

Studio course to learn techniques of landscape design and analysis, develop graphic communication skills for representing the landscape, and apply sustainable design principles to a site. Prerequisites: Junior standing; at least one course in drawing, design, or mapping, or Instructor permission. Cross-listed with: CDAE 137, ENVS 137, PSS 137.

NR 140. Applied Environ Statistics. 0 or 4 Credits.

Introduction to the design, application, interpretation and critical assessment of biostatistical analyses for natural resource applications. Concepts are applied through service learning partnerships. Prerequisite: Sophomore standing.

NR 141. Intro to Ecological Economics. 3 Credits.

Introduction to the study of economics as dependent on social and environmental systems and to transdisciplinary problem-solving using ecological economics. Prerequisite: Minimum Sophomore standing. Cross-listed with: ENVS 141.

NR 143. Intro to Geog Info Systems. 0 or 3 Credits.

Understanding and application of computer-based, geographically-referenced information systems. Prerequisite: Junior standing.

NR 146. Remote Sensing of Natural Res. 3 Credits.

Examinations of the earth's surface from aerial photographs and satellite imagery. Emphasis is on image interpretation, classification, change detection, multivariate analysis (e.g. principal components analysis). Prerequisite: Sophomore standing. Cross-listed with: FOR 146, GEOG 185.

NR 153. Intro to Environmental Policy. 3 Credits.

Introduction to policy aspects of environment and natural resources including policy processes, public governance, and citizen participation with applications to environmental issues. Prerequisite: NR 104 or POLS 021. Cross-listed with: ENVS 142.

NR 175. D2:Rural Lives in Global World. 3 Credits.

Uses political economic development theory to explore the livelihoods of rural Costa Ricans on the Osa Peninsula, and the tension between external demands made by a global economy vs. their local capacity for self-determination and control of employment opportunities, cultural identity, and quality of life. Co-requisite: Enrollment in the Costa Rica Semester Abroad Program.

NR 190. 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.

NR 192. 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.

NR 195. Intermediate Special Topics. 1-18 Credits.

Special topics in natural resources beyond the scope of existing formal courses.

NR 196. Undergraduate Research. 1-18 Credits.

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

NR 197. 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.

NR 199. Honors Seminar. 1 Credit.

A discussion and readings seminar that features guest speakers, and is part of the SNR Spring Seminar Series. Focus of the seminars change annually. Can be repeated. Prerequisite: Sophomore standing; open only to SNR Honors Students.

NR 205. SU:Ecosys Mgt:Intg Sci,Soc&Pol. 3 Credits.

Integration of natural and social science to formulate solutions and policies to address some of our biggest environmental challenges. Consideration of ecological, social, and economic approaches, as well as human needs and values for environmental decision-making. Prerequisites: NR 103, NR 104.

NR 206. Env Prob Sol & Impact Assessmt. 0 or 4 Credits.

Group dynamics, impact assessment, risk assessment, and decision making. Emphasis on the process of solving complex environmental problems, interdisciplinary team work, and the National Environmental Policy Act. Prerequisites: NR 205.

NR 207. D1: Power, Privilege & Envrnmt. 1 Credit.

This course provides seniors with the opportunity to understand aspects of power, privilege, and injustice and its implications for the natural resource and environmental fields. Prerequisites: Senior standing in Rubenstein School of Environment and Natural Resources.

NR 220. Landscape Ecology. 3 Credits.

The course examines the critical role of landscape pattern in determining ecological process and dynamics, as well as human-ecological interactions. Includes field labs. Prerequisites: NR 103 or BCOR 102; Senior/Graduate standing.

NR 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: NR 103, BCOR 102, PSS 161, or Graduate student standing. Cross-listed with: FOR 228.

NR 242. Adv Geospatial Techniques. 1-3 Credits.

Advanced course encompassing a wide range of topics in GIS, remote sensing, GPS, modeling, and visualization designed to provide technical expertise in geospatial techniques. Prerequisite: NR 143, GEOG 184, NR 343, NR 146, NR 346, or GEOG 185.

NR 243. GIS Practicum. 3 Credits.

An applied course in geospatial technology with a focus on ESRI's ArcGIS software suite. Prerequisite: NR 143 or NR 343.

NR 250. Limnology. 0 or 4 Credits.

Ecology of lakes and reservoirs, including their origin, physics, chemistry and biology, and the effects of anthropogenic perturbations. Field and laboratory experience. Prerequisites: BIOL 001 and BIOL 002 or BCOR 011 and BCOR 012, and CHEM 023 and CHEM 026 or CHEM 031 and CHEM 032, and NR 103 or BCOR 102.

NR 254. Adv Natural Resource Policy. 3 Credits.

Advanced seminar in environmental and natural resource policy.

NR 264. SL:C Ross Env Pb Srv Practicum. 4-5 Credits.

Creating proposals for modification and implementation of natural resource and environmental policy in Vermont with emphasis on critical thinking, problem solving and leadership. Prerequisites: NR 104 or POLS 021.

NR 268. Soil Ecology. 0 or 4 Credits.

Underlying concepts and theory of modern soil ecology will be reviewed including spatial and temporal distributions, sampling methods, biogeochemical cycles, and ecological functions of soil. Prerequisites: BCOR 102 or NR 103, Prerequisites: BCOR 102 or NR 103, and PSS 161. Cross-listed with: PSS 268.

NR 280. Stream Ecology. 0 or 4 Credits.

Ecology of streams including hydrodynamics, morphology, sediment transport, chemistry, biology and human impacts. Field and laboratory experience. Prerequisites: BIOL 001 and BIOL 002 or BCOR 011 and BCOR 012, and CHEM 023 and CHEM 026 or CHEM 031 and CHEM 032, and NR 103 or BCOR 102.

NR 288. Ecol Design & Living Technol. 3 Credits.

The course explores the potential for ecological design to shape a sustainable future. It analyzes living technologies for food production, waste management and environmental restoration. Prerequisite: Junior standing.

NR 289. Advanced Ecological Design. 3 Credits.

A problem-based, cross-disciplinary design course in which existing conditions are integrated with the redesign of place and system in alignment with ecological design principles. Prerequisite: NR 288.

NR 290. 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.

NR 292. 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.

NR 295. Advanced Special Topics. 1-18 Credits.

Advanced special topics in natural resource planning beyond the scope of existing formal courses.

NR 296. Undergraduate Research. 1-18 Credits.

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

NR 297. 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.

NR 298. Honors 'Project' Planning. 2 Credits.

Process, procedures, and strategies leading to the development of an individual or group Honors Project Proposal, to be submitted for review and approval. Prerequisite: Junior standing.

NR 299. Honors. 1-6 Credits.

Honors project dealing with aquatic resources, terrestrial ecology, or integrated natural resources.