

SUSTAINABILITY, ECOLOGY AND POLICY (SEP)

Courses

SEP 1610. Foundations in Place-Based Edu. 4 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 1610. Catamount Core: SU.

SEP 1990. Special Topics. 1-18 Credits.

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

SEP 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.

SEP 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.

SEP 1996. Aiken Scholars Seminar. 1 Credit.

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

SEP 2020. Water as a Natural Resource. 3 Credits.

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

SEP 2060. Kincentric Ecology. 3 Credits.

'Kincentric ecology', as defined by Enrique Salmon, is when humans view themselves as part of an extended ecological family that shares ancestry and origins with other species. Explores how we relate to other species through engagement with a number of different fields, including ecology, evolution, ecofeminism, multispecies ethnography, and Indigenous Place-Thought. Prerequisite: Sophomore standing. Catamount Core: AH2.

SEP 2070. Human Health & the Environment. 0 or 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: HLTH 2070. Catamount Core: SU.

SEP 2410. 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.

SEP 2530. 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 2040 or POLS 1300.

SEP 2650. Envi Literature, Arts, & Media. 3 Credits.

Introduction to the environmental humanities exploring the role of the literary, visual, musical, performative, and media arts in shaping cultural attitudes and responses to nature and contemporary environmental problems. Prerequisite: Minimum Sophomore standing. Catamount Core: AH2.

SEP 2810. Environmental Justice. 3 Credits.

Examines the historical trajectory of environmental justice; key lessons from EJ movements; the links between environmental justice, sustainability, decolonial movements, and just transitions; as well as how racism, classism, prejudice, and power are intimately intertwined with epistemic practices in science, technology, and environmental governance. Prerequisite: ENVS 1500, ENVS 1510, NR 1020, NR 1090, or ENSC 1010. Catamount Core: D1.

SEP 2880. Sustainability Science. 3 Credits.

The study of sustainability integrating natural and social science perspectives. Topics include theories of ecological adaptation and resilience, sustainability assessment methods, life cycle analysis, relational values, community science, emerging technologies and their applications to achieving a sustainability transformation. Prerequisites: ENVS 1500, ENVS 1510, NR 1010, NR 1020, NR 1090, or Instructor permission; minimum Sophomore standing. Catamount Core: SU.

SEP 2990. Special Topics. 1-18 Credits.

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

SEP 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.

SEP 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.

SEP 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.

SEP 2995. 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.

SEP 2996. 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.

SEP 3880. Ecological Design & Living Tec. 0 or 3 Credits.

Explores the potential for ecological design to shape a sustainable future. Analyzes living technologies for food production, waste management and environmental restoration. Prerequisite: Minimum Junior standing.

SEP 3904. Energy and Climate Law. 3 Credits.

Focus at the intersection of energy law, environmental law, and climate law, including the regulations that empower government agencies to enforce the laws, and the policies that implement this enforcement. Partnership with Vermont Law School's Institute for Energy and the Environment provides an experiential learning opportunity for students. Prerequisite: Minimum Junior standing.

SEP 3930. Environmental Law. 3 Credits.

An introduction to the dynamic and interdisciplinary field of environmental law in the United States. Examines the history of federal and state involvement in environmental decision-making and the most critical environmental problems we face today, including issues related to air and water pollution, biodiversity protection, and climate change. Prerequisites: NR 2530; minimum Junior standing.

SEP 3950. Environmental Education. 3 Credits.

Philosophy, concepts, and strategies of environmental education, emphasizing integration of environmental concerns into formal and non-formal educational programs for youth and adults. Prerequisite: Junior standing.

SEP 3990. Special Topics. 1-18 Credits.

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

SEP 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.

SEP 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.

SEP 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.

SEP 3995. 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.

SEP 3996. Honors. 1-6 Credits.

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

SEP 4080. Birding to Change the World. 3 Credits.

Place-based course and service learning lab that pairs UVM students as enviro-mentors with children in Burlington schools in an after-school birding and nature study club. Application and background check are required of enrolled students. Prerequisites: Minimum Junior standing; Instructor permission. Catamount Core: D2, GC2.

SEP 4200. Landscape Ecology. 3 Credits.

Examines the critical role of landscape pattern in determining ecological process and dynamics, as well as human-ecological interactions. Includes field labs. Prerequisites: NR 2030 or BCOR 2100; Senior standing.

SEP 4280. Ecosystem 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 2030, BCOR 2100, or ALE 2610; Senior standing.

SEP 4350. Legal Aspects of Envi Planning. 3 Credits.

Comparison of environmental planning law at local, state, and national levels. Case studies in environmental and natural resource planning and land use controls. Prerequisite: Senior standing.

SEP 4500. 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 1000, or BIOL 1400 and BIOL 1450, or BCOR 1400 and BCOR 1450; CHEM 1100 and CHEM 1150, or CHEM 1400 and CHEM 1450; NR 2030 or BCOR 2100.

SEP 4800. Stream Ecology. 4 Credits.

Ecology of streams including hydrodynamics, morphology, sediment transport, chemistry, biology and human impacts. Field and laboratory experience. Prerequisites: BIOL 1000, or BIOL 1400 and BIOL 1450, or BCOR 1400 and BCOR 1450; CHEM 1100 and CHEM 1150, or CHEM 1400 and CHEM 1450; NR 2030 or BCOR 2100.

SEP 4808. 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: SEP 3880.

SEP 4990. Special Topics. 1-18 Credits.

See Schedule of Courses for specific titles.