

## **Environmental Studies Courses**

### **Fall 2009**

**Note:** Degree students must wait until Friday, July 31 to register for Continuing Education Evening Division (CE) courses, the “Z” sections. Some of the CE courses also have regular “day” sections. If the course you want does not, we suggest you talk with the instructor ahead of time, or contact Sue Bean (sbean@uvm.edu) who will add your name to the list and do her best to register you when she returns from vacation on Monday, August 3.

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#### **ENVS 001 Introduction to Environmental Studies**

**90477 / 4 Credits / Stephanie Kaza / MWF, 10:40-11:30 / I101CC Theater**

A broad based survey course intended to provide a comprehensive introduction to the multi-disciplinary field of environmental studies through a combination of lectures, discussion seminar, field walks, and site visits. This course examines the ecological, social and political-economic aspects of contemporary environmental issues from an interdisciplinary perspective. Grading is based on three exams and discussion seminar assignments. Prerequisite: First year or sophomore standing, or instructor permission. Must register for lecture and lab at the same time. Enrollment Limit: 285.

#### **ENVS 095 Coffee Ecologies & Livelihoods**

**93956 / 3 Credits / Ernesto Mendez / MWF, 10:40-11:30 / TBA / Cross listed w/PSS 095 / CONTINUING EDUCATION**

This course presents an overview of the environmental, social and economic dimensions of coffee production, commercialization and consumption. Specifically, we will cover the following topics: 1) How coffee is produced and the challenges and opportunities that affect the livelihoods of coffee producers; 2) How coffee is marketed in the global economy, including a comparison of conventional and alternative markets (fair trade, organic, shade grown, etc.); 3) The opportunities and challenges to integrate coffee production with environmental conservation initiatives. **This course counts for the UVM international diversity requirement.** Enrollment limit: 50.

#### **ENVS 095 Introduction to Herbalism**

**93995 / 3 Credits / Barbara Raab / M, 5:10-8:10 pm / TBA / CONTINUING EDUCATION**

This course focuses on the science and art of using plants in the natural approach to healing. The present-day context of phytotherapy within the realms of both complementary and conventional allopathic medicines is explored. The harvesting, preparation, storage, and relative safety-toxicity of herbs are covered, in addition to lifestyle options and specific herbs as support for specific systems of the body. A field trip to Bramblewood Gardens and Botanical Sanctuary is included. Enrollment limit: 20. For more info, email braab@uvm.edu.

#### **ENVS 137 Landscape Design Fundamentals**

**91293 / 3 Credits / Sarah Lovell / TR, 2:30-5:15 pm, Hills 228 / Cross-listed with PSS 137**

Landscape Design Fundamentals will provide students with the basic skills for graphical representation of the landscape, including the development of site plan, section, elevation, and perspective views. The course will encourage the exploration of sustainable landscape solutions at the site scale based on the concept that a landscape designed for multiple functions (ecological, economic, and social) will meet the needs of society, while minimizing the negative impacts on the future environment. At least one course in design or mapping, or instructor permission. Enrollment limit: 15.

#### **ENVS 151 Intermediate Environmental Studies**

**91206 / 3 Credits / Frank Zelko / TR, 2:35-3:45 / TBA**

Through the development of networking and other research skills each student in this course compiles diverse background knowledge about areas of personal environmental interest. From this knowledge are developed personal academic and activity plans. Presentations by guests provide interdisciplinary context through current issues, organized advocacy, and personal and professional opportunities. E. Getchell will co-advise this course. FOR ENVS MAJORS ONLY. Prerequisite: ENVS 1, 2; sophomore or junior standing.

#### **ENVS 151 Intermediate Environmental Studies**

**91319 3 Credits / Staff / TR, 2:30-3:45 / Terrill 319**

Same description as above. FOR ENVS MAJORS ONLY.

**ENVS 173 Landscape Natural History****94111 / 3 Credits / Ian Worley / M 12:50-4:55 / TBA / CONTINUING EDUCATION**

This field-based course will explore the nature of Vermont's landscapes from a multidisciplinary perspective. Through a series of field trips, projects, and lectures, students will gain an understanding of why the surrounding landscape looks the way it does. We'll investigate a variety of landscapes from the bedrock up through the wildlife habitat, and learn to identify and understand the natural history of various components. In addition to exploring the emerging disciplines of landscape ecology, conservation biology, and ecosystem management, we will also examine landscapes from artistic and historical perspectives. Prerequisites: ENVS 1 or NR 1 or Intro. Natural Science, ENVS major, sophomore stdg. Enrollment Limit: 15

**ENVS 177 Introduction to Landscape Restoration****91764 / 3 Credits / Rick Paradis / W, 4:05-7:05 pm / TBA**

This course explores the emerging field of landscape restoration, which attempts to find ways to repair and restore the ecological systems and natural landscapes damaged by past human activity and neglect. The many facets of restoration are examined including its historical development, its philosophical foundation, its multidisciplinary nature that borrows from the theoretical and applied sciences, and its varied practical applications. A combination of readings, seminars, invited guests, class presentations, and field trips offers a theoretical knowledge base in this exciting new discipline and practical experience participating at sites of ongoing restoration efforts. Prerequisite: ENVS 1 or NR 1 or permission (656-4055). Enrollment limit: 25.

**ENVS 180 Radical Environmentalism****94197 / 94011 / 3 Credits / Brian Tokar / R, 4:00-6:45 pm TBA / CONTINUING EDUCATION**

As environmental problems have escalated in recent decades, new radical currents have greatly influenced ecological thought and activism. This course will describe the historical emergence of radical environmentalisms, examine various ecologically-based philosophies, and explore case studies of environmental resistance movements around the world. Readings, class discussions, and multimedia materials will include a broad range of perspectives—scholarly and popular, analytical and prescriptive, political and philosophical—and students will have the opportunity to examine today's pressing issues and campaigns through the lens of emerging movements and theoretical traditions. Prerequisite: ENVS 15, NR 1 or permission. Enrollment Limit: 20.

**ENVS 191 Environmental Practicum****92918 / 1-6 Credits / Stephanie Kaza / TBA**

Internship, independent study, apprenticeship, etc. Prerequisite: Permission.

**ENVS 195 Current Topics in Climate Change****94291 / 3 Credits / Robert Winkler / TBA / CONTINUING EDUCATION**

This ON-LINE COURSE is broadly divided into three sections: "Desolate Voices" - the study of the long term cultural and social problems caused by global industrial development, and its direct effect on climate change and global warming; "Bantering Chants" - readings and discussions on environmental health issues, sustainable community planning, and corporate responsibility; and "Attendant Dreams" - Investigating alternative and renewal energy resources, environmental justice concerns, and ways to integrate environmental issues into politics. Helping to power this electronic dialogue is the Climate Action blog sponsored by the Vermont Climate Action Partnership (UVM, Johnson State College and the Alliance for Climate Action - 10% Challenge). With over 900 "hits" this past semester, the Climate Action blog is becoming a powerful tool for campus-wide, local and regional environmental networking. Add your voice to this ever growing feature. Involvement in UVM's Environmental Council and the Climate Action Committee, attending conferences, and participation in environmental organizations is encouraged and adds an active component to the course. Enrollment limit: 20. For more information, email Robert.Winkler@uvm.edu, or call 656-5400.

**ENVS 195 Environmental Entrepreneurship****94201/ 94112 / 3 Credits / Todd Comen / M, 4:05-7:05 pm / TBA**

Environmental Entrepreneurship is designed to meet individual student interests as well as to introduce broad management concepts that will help every student make informed entrepreneurial decisions. The course is organized around two main themes, food systems and human environments (built systems). In this course, students will learn how organizations strive to minimize their impact on the environment and make meaningful contributions to society. Students will study environmental entrepreneurship at a variety of organizational scales, conducting independent research and learning from case studies. The building blocks of environmental entrepreneurship will be introduced so that students without a business background will understand the key components of creating and operating a successful organization, with emphasis on the business planning process. Prerequisites: ENVS 1, NR 1, or permission; Sophomore stdg; Enrollment Limit: 30.

**ENVS 195 Environmental Journalism****94012 / 3 Credits / Joshua Brown / R, 5-8pm / TBA / CONTINUING EDUCATION**

Covering the “environmental beat” requires that journalists have the ability to report on complex and interwoven subjects, from land use policy to laboratory discoveries; energy technologies to natural history; waste management to wilderness travel. This course will give students an introduction to finding and tackling these challenging stories. The emphasis of the class is on developing an informed and nuanced approach to reporting and writing environmental stories suitable for newspaper, magazine, and radio formats. Through this course you’ll learn about current and emerging environmental topics—both locally and nationally—while you gain hands-on experience in the basics of journalism: deciding what to write about, gathering news, conducting research, investigating, and interviewing. No background in journalism is needed, but you should be a conscientious, inquisitive, determined writer with strong basic writing skills. Enrollment Limit: 20. For more info, email [Joshua.Brown@uvm.edu](mailto:Joshua.Brown@uvm.edu).

**ENVS 195 Nature Drawing****94013/ 3 Credits / Davis TeSelle / T, 1:00-3:45 pm / TBA / CONTINUING EDUCATION****94014 / 3 Credits / Davis TeSelle / W, 12:50-3:50 pm / TBA / CONTINUING EDUCATION**

This course focuses on the practice of botanical, natural history and landscape drawing in the field. Students will engage with works of art in the exhibition "The Artist as Naturalist/The Naturalist as Artist" concurrently on display at the Fleming Museum and Library Special Collections. Study of these works will be applied to our on-site field drawing sessions at the Intervale and UVM Natural Areas. Students will be guided through basic drawing techniques to produce a portfolio of drawings. Emphasis is placed on clarifying the seeing process and developing skills to express this enhanced vision. Although experience with drawing is helpful students without an art background can find this course enjoyable and rewarding. Prerequisites: None. Enrollment Limit: 15.

**ENVS 195 Systems Thinking for Sustainability****TBA / 3 Credits / Lance Polya / TBA / TBA / CONTINUING EDUCATION**

How can we make the systems that we work and live in more environmentally, socially and economically sustainable? Systems Thinking helps you develop the critical skills necessary to solve the complex problems for the transitional era we’re in today. This course will change your paradigms and better prepare you to lead in the transition to a more sustainable world. Systems Thinking allows you to see “the big picture” and synthesize information from many different perspectives and disciplines in both your personal and professional lives. You will develop high-leverage solutions to challenging problems that you confront, such as how to plan sustainably, allocate scarce resources, and analyze trade-offs. As a result, you will better understand the unanticipated, long-term consequences and the cross-impacts of your decisions. This is a highly participatory, non-technical course with no computer use. It is also a service-learning course where you will be part of a team that uses Systems Thinking to solve a relevant sustainability issue for a community partner. Cross-listed with NR 185. Prerequisites: ENVS 1, NR 1, or permission (899-2303). Enrollment limit: 30. For more information, go to: [http://www.uvm.edu/~lpolya/syllabus/Course\\_description.htm](http://www.uvm.edu/~lpolya/syllabus/Course_description.htm).

**ENVS 195 Wilderness Education & Leadership****94159 / 3 Credits / John Abbott / T, 4:00-6:45 pm / TBA / CONTINUING EDUCATION**

The primary objective of this class is to provide understanding of the history, global evolution, current issues, leadership skill standards, ethics and future trends in wilderness education and leadership. Secondly, students will pursue skill mastery in concrete leadership, hard skills, (map & compass, stove use & maintenance, group travel management, campsite selection & shelter construction, Leave No Trace (LNT) and general expedition behavior) and more interpersonal soft skills, leadership skills emphasizing group development and dynamic challenges (understanding leadership & learning styles, risk management, judgment & decision-making etc). Finally, students will be expected to place these personal leadership skills and passion into a professional context. Prerequisites: ENVS 1 or NR 1; two required weekend trips - dates TBD; \$175 lab fee; Cross listed with RM 188 Z1#92535. Enrollment limit for both sections: 16.

**ENVS 201 Research Methods****91158 / 3 Credits / Rick Paradis / TR, 3:30-4:45 / TBA****91197 / 3 Credits / Saleem Ali / TR, 1:00-2:15 pm / TBA**

This course covers the planning, design, and methods for the ENVS 202 senior thesis or project, required of all ENVS majors. Includes the literature review and proposal writing. Prerequisite: ENVS major; Junior standing, ENVS 151. Enrollment Limit: 30.

**ENVS 284 Teaching Assistantship**  
**93250 / 1-2 Credits / Stephanie Kaza / TBA**

Assist instructor in teaching and administration of ENVS 001, Introduction to Environmental Studies. Primary responsibilities will include leading one to two sections of weekly discussion sessions of 15 students each; planning and preparation of instructional materials for discussion sessions; maintenance of student records; and assisting with student grading of course examinations. Teaching assistants are expected to attend all ENVS 001 lectures; lead one to two weekly discussion sessions (3 hrs. each); attend a weekly morning staff meeting; and have regular office hours for students. Prerequisite: ENVS 001 TA's only.

**ENVS 291 Advanced Environmental Practicum**  
**92919/ 1-12 Credits / Stephanie Kaza / TBA**

Prerequisites: Senior standing; Permission only.

**ENVS 293 Environmental Law**  
**94147 / 93952 / 3 Credits / Jared Margolis / M, 5:10-8:10 / TBA / CONTINUING EDUCATION**

This class will begin by providing a basic overview of the land use process and case law influencing local and regional land use decisions. Students will work with cases and statutes in order to become familiar with reading and interpreting the law. The course will address planning and control of land use, property rights, growth management, and will provide an overview of land use issues in Vermont. We will then address federal statutes, and the cases interpreting them, in order to analyze the larger legal context of land use issues. Prerequisites: One 100 level course in ENVS, Junior standing. Enrollment Limit: 25.

**ENVS 294 Environmental Education**  
**91170 / 3 Credits / Tom Hudspeth / TR, 10:10-11:15 am / TBA**

This course explores the philosophy, principles and concepts, and strategies of environmental education, with emphasis on integrating environmental concerns into formal and non-formal educational programs for youths and adults. Prerequisites: ENVS 1 and Junior standing; Instructor Permission. Enrollment Limit: 40

**ENVS 295 Advanced Agroecology**  
**93953/ 3 Credits / Ernesto Mendez / TR, 10:00-11:15 / TBA**

This course is for seniors and graduate students only. It presents an in-depth overview of research and applications in the field of agroecology, with a focus on current research literature. The learning and teaching objectives of the course are as follows: 1) students become familiar with current research and applied concepts and applications of the field of agroecology; 2) through hands-on field and laboratory exercises, and exposure to local farming systems, students learn ecological and social research and analytical skills, which are commonly used in agroecology; 3) students practice working in groups; 4) students practice their critical thinking and communication skills by reading and discussing scientific literature, writing a research paper and presenting it to their peers. Requirements: PSS 021, ecology course or similar. Enrollment Limit: 30.

**ENVS 295 The Circumpolar World**  
**94198 / 94199 / 3 Credits / Kathleen Dana / R, 4:00-6:45 pm / TBA / CONTINUING EDUCATION**

Based on the curriculum of the Arctic Council's university without walls, this introduction to the circumpolar world will explore the ecological, cultural, and political processes of the Far North, laying a foundation for further exploration of this largely unexplored region. With the arrival of the International Polar Year in 2007 and increased attention to global climate change, this vast and fragile region constitutes an untapped reserve of critical importance to a sustainable world. Using a circumpolar and comparative approach, we will investigate the physical and natural processes of the Arctic and Sub-Arctic, as well as the indigenous and local peoples and cultures in the region. Prerequisites: one 100-level ENVS course, Junior standing. Enrollment Limit: 20.

**ENVS 295 Community Forestry at Home and Abroad**  
**93985 / 3 Credits / Cecilia Danks / R, 1:00-3:45 pm / TBA**

How do we sustain both complex ecosystems like forests and the human communities that live them? This class will examine approaches to community development based on sustaining forest resources that are occurring in developing countries, the western US, and in Vermont. We will use community-based forestry as a way to explore three issues: a) how do communities, businesses and government work together to manage common pool resources in ways that promote social and ecological well-being, b) how can good ideas and pilot projects be scaled up to change the dominant social-

political-economic systems, c) what are some of the social justice and diversity issues in resource management and how do community-based approaches address or exacerbate inequity? The first part of the class will cover social and economic theory relevant to understanding community-based resource management. The second part of the class will apply theory to understanding the practice of community-based resource management through case studies, guest speakers, and field trips. Assignments include weekly reading, mid-term exam, one major project and a variety of minor assignments. As part of the major project, we may revise or construct a website. This class is designed for advanced undergraduates and graduate students. Prerequisites: Junior, Senior, or Grad. standing. Enrollment Limit: 35.

**ENVS 295 Eastern Woodlands: Protecting, Restoring and Managing**  
**94276 / 94009 / 3 Credits / Jim Northup / W, 5:10-8:10 pm / TBA / CONTINUING EDUCATION**

This course will explore the rich living tradition of wilderness protection and restoration in the eastern United States from the perspectives of history, science and public policy. We will ground our thinking in Eastern natural history and in the wilderness advocacy of prominent Easterners--George Perkins Marsh, Joseph Battell, George D. Aiken, Robert Stafford and others. We will look at current opportunities to establish more wilderness in the East, and will consider the ecological, and economic justifications for doing so. The East's unique contribution to the on-going national dialogue about wilderness restoration will be a recurring theme throughout the course, and will provide a fitting capstone at the end. Prerequisites: Junior or senior standing and one 100-level ENVS course. Enrollment limit: 25.

**ENVS 295 Environmental Conflict Resolution**  
**93396 / 3 Credits / Saleem Ali / M, 12:50-3:50 pm / TBA**

This course explores the causes of conflicts involving environmental concerns, without presuming that environmental disputes are necessarily a cause of conflict --- indeed they may be a part of the solution to wider regional conflicts. The emerging field of environmental conflict resolution has its roots in various disciplines such as political science, economic game theory, systems analysis, sociology and anthropology. The study of conflict versus cooperation also has an important basis in natural science, particularly in evolutionary biology and ethology. Our aim in the first part of the class is to explore theories of conflict and cooperation from various disciplinary perspectives to glean common lessons that may be applied to "real-world" cases. The second part of the course will focus on the practice of conflict resolution and various approaches to resolving conflicts and their relative applicability in different parts of the world. Prerequisites: One ENVS course at the 100-level or permission (656-0173). Enrollment Limit: 40.

**ENVS 295 Vermont Food Systems**  
**94354 / 3 Credits / Rachel Shattman / T, 4:00 – 6:45 / MLSci. Rm 105**

Are local food systems more sustainable than global food systems? Why do some farmers like farmers? markets? How do consumer choices shape food systems? Why does the federal government subsidize some types of agriculture but not others? Addressing these questions requires social, environmental, economic, and political insight into food systems. This intermediate, seminar based course will increase your capacity to think critically and identify opportunities and barriers to healthy, vibrant food systems. The course will include in depth consideration of topics ranging from stakeholder preferences, federal and state policies, and hot topics in food system research. We will accomplish through reading reports, peer reviewed articles, scholarly texts, among other sources. Classes will be composed of a combination of lecture, discussions, writing, and group work. Special focus will be given to Vermont as a case study.