

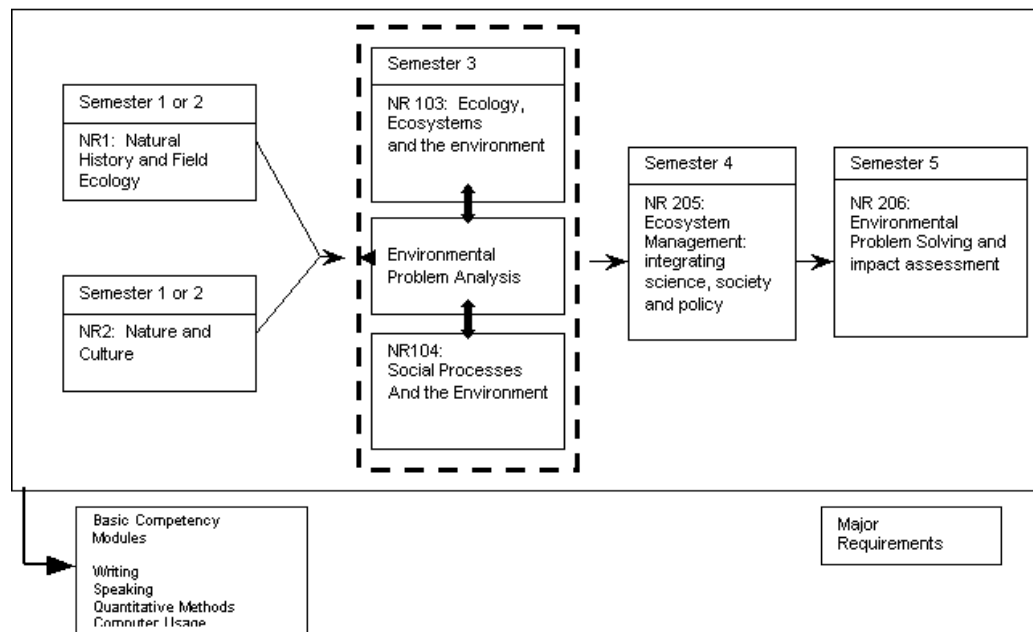
NR 104
Social Processes and the Environment
 Tuesdays and Thursdays 10:00 – 11:15 am
 101 Stafford

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Year 2 Snapshot Two integrated courses form a 6-credit block for year 2 of the Rubenstein School's core curriculum. NR 103 builds on NR 1, establishing a study of ecology fundamental to environmental problem-solving. NR 104 builds on NR 2, establishing a study of human social systems dependent on nature and culture. The study of ecology and human society are integrated through identifying and analyzing real problems, and synthesizing and communicating solutions through overlapping assignments. This broad introduction to environmental problem-solving is in preparation for Ecosystem Management (NR 205) and Environmental Problem Solving (NR 206), in which student groups contract with local government agencies, citizen groups, NGOs, or university projects to help solve critical problems.

**Rubenstein
 School Core
 Curriculum**



Course Description	NR 104 establishes a study of human social systems dependent on nature and culture consistent with the findings and current understanding of the natural sciences. Our guiding question will be how humans allocate scarce resources to meet alternative desirable ends. Scarcity is defined through the framework of ecological economics. Allocation is explored through market organization and market failure. Means and ends are connected by governance, institutions, and public policy. And our desirable ends are investigated through the study of ethics and philosophy, and the search for consilience (or unity of knowledge) amongst the natural sciences, social sciences, and humanities.
Course Objectives	<p>As with all core curriculum courses, the faculty of the Rubenstein School have given considerable thought to the material that should be included in NR 104. Based on faculty deliberations, students in NR 104 will gain skills and understanding in the following areas:</p> <ol style="list-style-type: none"> 1. Integrate the traditional domains of natural science, social science, and humanities in the definition and analysis of environmental problems; 2. Analyze how natural resource and environment issues are addressed through government, market, and interest group processes; 3. Learn and write about a particular environmental policy issue of interest to each student; 4. Use library and web research skills to find information about environmental issues; and 5. Explore values such as democracy, equity, and civic duty as they relate to environment and natural resource issues.
Required Reading	This course is organized around daily lectures and discussions based on student postings to the class Blackboard site and readings. Readings should be completed before class and expect to be called on to help frame the questions for each morning. The first third of the class draws on <i>Ecological Economics</i> by Daly and Farley (Washington, DC: Island Press, 2010), the middle third draws on <i>Environmental Policy</i> by Vig and Kraft (Washington, DC: Congressional Quarterly Press, 2009), and the last third draws on a wide selection of readings on human nature posted on Blackboard.
Expectations	Year 2 in your core curriculum is designed to “raise the bar” and begin your life-long journey as a problem-solver. Environmental and natural resource issues are complex, involving a plurality of values, a high degree of uncertainty, and requiring urgent solutions. The intent of this course is to challenge and expand your thinking and introduce integrative problem definition and analysis skills. This will require group dialogue and discussion, so attendance is NOT optional and class preparation and participation are mandatory. We’re interested in deep thought and expression through analysis and synthesis, not rote memorization and programmed regurgitation. Expect to read and write a lot, conduct original research, be called on in class, and generate more questions than answers.

Assessment Your final grade will be based on the following categories and *approximate* percentages:

Homework & Quizzes	100 points
Mid-term Examination & Essay	100
Policy Brief	100
Final Paper	100
Class Preparation, Participation & Exercises	<u>100</u>
TOTAL	500 points

Quizzes & Homework There are NO make-ups for quizzes (scheduled or unscheduled). If you have an excused absence then a written assignment will be substituted for any missed quiz. For homework assignments you are encouraged to discuss and debate potential answers with classmates, and you may ask us, or any other source, for clarification. However, the work that you submit must be your own – your own work, your own words, reflecting your own understanding. For group assignments, the work load must be shared equally, if not on specific assignments then at least on average for the semester. LATE ASSIGNMENTS WILL NOT BE ACCEPTED (barring extenuating circumstances) and HOMEWORKS WILL NOT BE DROPPED.

Academic Integrity Any breach of the Code of Academic Integrity will be considered grounds for failure in the course. A preliminary hearing will be held, and a letter will be put in your record. See: <http://www.uvm.edu/~uvmppg/ppg/student/acadintegrity.pdf>.

NR 104 Course Syllabus

Date	Topics	Readings/ Assignments
T 8/30	Course Overview & Introduction – defining scarce means, framing resource allocation, governing public processes, and shaping our desirable ends	Syllabus
<i>Ecological Economics and Defining Our Means</i>		
Th 9/1	Intro. to Ecological Economics – from empty to full world	D&F, Ch. 1
T 9/6	Allocation, Optimal scale and Public Policy	D&F, Chs. 2-3
Th 9/8	The Resources of Nature, and the Nature of Resources – stock-flow vs. fund-service, rivalness and excludability	D&F, Ch. 4
T 9/13	Abiotic Resources <i>Case: Peak Oil</i>	D&F, Ch. 5
Th 9/15	Biotic Resources <i>Case: Ecosystem Services</i>	D&F, Chs. 6-7
<i>Markets and Framing Resource Allocation</i>		
T 9/20	Organization of Society's Resources	D&F, Ch. 8
Th 9/22	Markets	D&F, Ch. 8
T 9/27	Supply and Demand	D&F, Ch. 9
Th 9/29	Market Failure	D&F, Ch. 10
T 10/4	Wrap-up and Exam Review	
Th 10/6	<i>Assessment:</i> Mid-term examination (w/ take-home essay)	D&F, Chs. 11-12
<i>Governance, Institutions, and Public Policy</i>		
T 10/11	Government institutions and policy processes	V&K, Ch. 1
Th 10/13	Top-down or Bottom-up Governance <i>Case: Adirondack Park</i>	V&K, Ch. 2 <i>Due:</i> Exam essay
T 10/18	Environmental Advocacy <i>Case: Riverkeepers</i>	V&K, Ch. 3
Th 10/20	Executive Branch	V&K, Ch. 4

Date	Topics	Readings/ Assignments
T 10/25	<i>Movie: The God Squad</i>	Czech & Krausman, Chs. 2-3
Th 10/27	Legislative Branch <i>Case: Endangered Species Act</i>	V&K, Ch. 5
T 11/1	Judicial Branch <i>Case: National Environmental Policy Act</i>	V&K, Ch. 6
Th 11/3	Bureaucracy <i>Case: Environmental Protection Agency</i> <i>Assessment: Policy Brief assigned</i>	V&K, Ch. 7
T 11/8	International Environmental Policy <i>Case: Climate Change: Science, Policy, & Economics</i>	V&K, Ch. 12
Th 11/10	Poverty, Health, and Environment <i>Case: Caribbean HIV/AIDS Epidemic</i> <i>Movie: A Closer Walk</i>	V&K, Ch. 13
T 11/15	Sustainable Development and Quality of Life <i>Case: Vermont GPI and Burlington QOL</i>	<i>Due: PB Outline</i> V&K, Ch. 16
<i>Genes, Cultures, and Shaping Our Desirable Ends</i>		
Th 11/17	From Means to Ends	
T 11/29	Evolution and Behavior	t.b.a. <i>Due: Policy Brief</i>
Th 12/1	Cultural Evolution	t.b.a.
T 12/6	Gene-Culture Co-Evolution	t.b.a.
	The Fitness of Human Nature <i>Assessment: Final Paper</i>	t.b.a.
Final Paper Due During Exam Period		

Readings Key:

D&F = Daly and Farley, *Ecological Economics*, 2010.

V&K = Vig and Kraft, *Environmental Policy: New Directions for the 21st Century*, 2009.

Conceptual Overview

NR 104 is organized in to four sections, following the means to ends spectrum illustrated below, and linking to key themes in NR 103 (Ecology, Ecosystems, and the Environment). First, we explore the biophysical bounds of the ecosystem. These define what is possible – *the ultimate means* – or carrying capacity and natural capital that allow human communities to prosper. While NR 103 examines the forces that control physical aspects of ecosystems, NR 104 explores the implications of biophysical constraints on our choices. Second, we examine how science and technology have shaped the physical and ecological resources into built and human capital. As the ultimate means are put to human use they

become *intermediate means* – the goods and services that meet human wants and desires. Third, we describe the institutional mechanisms and political economy that are the foundation of human societies, and draw lessons from the history of managing the interface between humans and our sustaining and containing environment. The social institutions of family, community, and government connect the human dominated landscape and economies with the *intermediate ends* of society, including economic vitality, social welfare, and ecological integrity. Finally, we ask the age-old question, “What are the *ultimate ends* of humanity?” How are we to act to sustain all life on earth, foster justice between all races, classes, and societies, and secure the well-being of our children? These are the ethical and philosophical issues debated in the halls of government, worship, and community around the world, and intimately depend on this full spectrum of knowledge and debate – from means to ends – to forge solutions to society’s greatest challenges.

