

NR 104

Social Processes and the Environment

T Th 11 am – 12:15 pm
104 Aiken

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Course Description

This course is part of a sophomore-level seven-credit block in the Natural Resources core curriculum. The class establishes a study of human social systems dependent on nature and culture (building from NR 2) consistent with the findings and current understanding of the natural sciences. Students take NR104 and Ecology, Ecosystem and the Environment (NR103) simultaneously, and have the unique opportunity to integrate the social sciences and humanities with the natural sciences through Environmental Problem Analysis (NR105), in preparation for a junior-level course in Ecosystem Management (NR 205).

The interface, interdependence, and co-evolution of social and environmental systems are first explored in the setting of an isolated, biologically impoverished, culturally homogeneous, small island nation. In this context, the challenge of sustainability is defined and then extended to broad social and environmental issues in the current “century of the environment”. An appreciation for a divergence of world views – often characterized as economist vs. ecologist – is developed by contrasting marginal analysis with systems modeling. The mission of consilience – the unity of knowledge – then offers an agenda and challenge of integrated analysis, synthesis, and policy design. The great branches of learning – natural sciences, social sciences, and humanities – are confronted with questions on the fitness of human nature, the search for reason, the interpretation of our world, and the age-old quest for right and wrong. To survey the role and design of environmental policy, the framework of policy design analysis is introduced with the example of the Endangered Species Act, followed by discussion on social construction, policy context and legitimacy, and democracy.

Required Reading

This course is organized around daily discussions based on student postings to the class WebCT site, articles posted as PDF files on the WebCT contents page, and these required books:

- Czech, Brian and Paul R. Krausman. 2001. *The Endangered Species Act: History, Conservation Biology, and Public Policy*. J. Hopkins Univ. Press, Baltimore, MD.
- McDaniel, Carl N. and John M. Gowdy. 2000. *Paradise for Sale: a Parable of Nature*. University of California Press, Berkeley, CA.
- Wilson, Edward O. 1998. *Consilience*. Random House, New York, NY.

Grading

The intent of this course is to challenge and expand your thinking and problem-solving skills on complex social and environmental issues. This will require group dialogue and discussion, so attendance is NOT optional and class preparation and participation will be rewarded. I'm interested in deep thought and expression through analysis and synthesis, not rote memorization and programmed regurgitation. Expect to read and write a lot, and to be called on in class. Your final grade will be based on the following categories and *approximate* percentages:

Analysis (e.g., WebCT postings, short essays, HW problems)	30%
Synthesis (e.g. NYT book review, policy design assignment)	30%
Assessment (e.g., schedule & unscheduled quizzes, mid-term)	30%
Attendance & Class Participation	10%

Quiz and Homework Policy

There are NO make-ups for quizzes (scheduled or unscheduled). If you have an excused absence, a written assignment will be substituted for any missed quiz. You may discuss homework problems, but all work handed in should be original (unless otherwise assigned). Any violation of this will be treated as a breach of academic integrity. On-line assignments are due by 9:30 a.m. (before NR 103 begins) on the due date. NO LATE ASSIGNMENTS WILL BE ACCEPTED, and NO HOMEWORKS WILL BE DROPPED.

Academic Integrity

Any breach of the academic integrity code listed in the UVM Handbook will be considered grounds for failure in the course. A preliminary hearing will be held, and a letter will be put in your record.

Course Syllabus
(1/12/03)

Date	Topics	Readings
Tue. 1/14	Course overview	
Social Processes and the Environment		
Thu. 1/16	Framework: The Great Branches of Learning <i>Due:</i> WebCT Survey and Bulletin Posting	Wilson: Chs. 1-2
Tue. 1/21	Challenge: Unity of Knowledge amongst Divergent Worldviews <i>Due:</i> WebCT Bulletin Posting	Wilson: Ch. 3
Thu. 1/23	Implications: From Empty to Full World <i>Due:</i> Essay – Relation of Natural Sciences, Social Sciences, and the Humanities	M&G: Prelude, Chs 1-2
Tue. 1/28	To What End? The Here of the Century of the Environment <i>Assessment:</i> WebCT Quiz Due	M&G: Ch. 3 Lubchenco, 1997
Diverging Worldviews		
Thu. 1/30	The Bottleneck: Ecology vs. Economy	M&G: Chs. 4-6 Wilson, 2002
Tue. 2/4	Weak vs. Strong Sustainability <i>Due:</i> Essay – A New Social Contract for Science	M&G: 7-8, Coda
Thu. 2/6	Marginal Analysis; or Thinking Like an Economist <i>Due:</i> WebCT Bulletin Posting	Frank & Bernanke, 2001
Tue. 2/11	The Market Economy	t.b.a.
Thu. 2/13	Economic Organization of Society <i>Due:</i> Economic Problem Set	t.b.a.
Tue. 2/18	Systems Thinking <i>Due:</i> WebCT Bulletin Posting	Wilson: Ch. 4

Date	Topics	Readings
Thu. 2/20	Systems Modeling	Wilson: Ch. 5
Tue. 2/23	Guest Lecture: t.b.a. <i>Assessment</i> : Midterm Take-Home Examination Due	t.b.a.
Thu. 2/27	Guest Lecture: John Gowdy, co-author of <i>Paradise for Sale</i>	Review M&G
The Unity of Knowledge		
Tue. 3/4	Natural Sciences and the Fitness of Human Nature <i>Assessment</i> : In-Class Quiz	Wilson: Chs. 6-8
Thu. 3/6	Social Sciences and the Search for Reason <i>Due</i> : WebCT Bulletin Posting	Wilson: Ch. 9
Tue. 3/11	Humanities and the Interpretation of our World <i>Due</i> : WebCT Bulletin Posting and Survey	Wilson: Ch. 10
Thu. 3/13	Ethics and the Source of Right and Wrong <i>Due</i> : WebCT Bulletin Posting and Survey	Wilson: Ch. 11
Spring Break		
Environmental Policy		
Tue. 3/25	The Role and Design of Environmental Policy	Wilson: Ch. 12 C&K: Ch. 1
Thu. 3/27	Case Study: The Endangered Species Act <i>Video</i> : The God Squad	C&K: Chs. 2-3
Tue. 4/1	Case Study: Superfund Act and U.S. Government Operations <i>Assessment</i> : NYT Book Review of <i>Consilience</i> Due	t.b.a.
Thu. 4/3	Theories of Public Policy	C&K: Ch. 4

Date	Topics	Readings
Tue. 4/8	Guest Lecture: Carl McDaniel, co-author of <i>Paradise for Sale</i> “Hopefulness in a Time of Peril: Can we Change?”	Review M&G
Thu. 4/10	Policy Design Analysis <i>Due</i> : WebCT Bulletin Posting on Policy Choice	C&K: Ch. 5
Tue. 4/15	Social Construction of Policy Targets <i>Video</i> : Affluenza	C&K: Ch. 6 Schneider & Ingram, 1993
Thu. 4/17	Technical Legitimacy and its Political and Fiscal Context	C&K: Chs. 7-8
Tue. 4/22	Democracy and Property Rights: the Case of the Adirondack Park	C&K: Chs. 9-10
Thu. 4/24	Discussion on Final Projects <i>Due</i> : Breath of Policy Design Analysis	C&K: Ch. 11
Tue. 4/29	Course Synthesis <i>Due</i> : Environmental Policy Literature Review	
Finals Week	<i>Due</i> : Depth of Policy Design Analysis	

Key: Wilson = Wilson, *Consilience*
M&G = McDaniel and Gowdy, *Paradise for Sale*
C&K = Czech and Krausman, *The Endangered Species Act*

Other readings available on contents page of course WebCT.

School of Natural Resources – The University of Vermont
Spring Seminar Series 2003 – Ecological Economics

Seminars are on Thursdays (unless otherwise noted) from 12:30 to 1:45 p.m. in 104 Aiken.

January 16 - First day of class, no speaker

January 23 - Robert Costanza, The University of Vermont
“Ecological Economics: Reintegrating the Study of Humans and the Rest of Nature”

January 30 - Richard Howarth, Dartmouth College
“The Psychology of Well-Being”

February 6 - Cutler Cleveland, Boston University
“Energy Quality, Net Energy, and the Coming Energy Transition”

February 13 - Janet Milne, Vermont Law School
“Ecological Tax Reform”

February 20 - Sabine O’Hara, Concordia College
“The Role of Local Participation and Resident’s Needs in Sustainable Development”

February 27 - John Gowdy, Rensselaer Polytechnic Institute
“The Beginning of the End of Conventional Economics”

March 6 - Peter Brown, McGill University
“Property Rights: an Integrated, Evolutionary Perspective”

March 13 - Josh Farley, The University of Vermont
“Towards a Just Distribution of Resources”

March 20 - Spring Break

March 26 (WEDNESDAY) - Herman Daly, University of Maryland
“Sustainability and the Scale of the Economy”

April 3 - David Orr, Oberlin College
“Learning Organizations”

April 8 (TUESDAY) - Joan Roughgarden, Stanford University
“Modeling the Economically Optimal Management of Ecosystem Services”

April 17 - Norman Myers, Oxford University
“Perverse Subsidies and Other Institutional Roadblocks on the Way to Sustainable Development”

April 24 - Jon Erickson, The University of Vermont
“Ecological Economics as the Guiding Paradigm for Creating a Sustainable and Desirable Future”