

# Introduction to Ecological Economics

NR 185, CDAE 195, BSAD 095, ENVS 195, EC 095

M W F 9:05 – 9:55 a.m.

104 Aiken Center

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**Office Hrs** M W 10 a.m. – 12 noon. Also by appointment.

## Course Description

This course will introduce ecological economics as a transdisciplinary framework to economic, social, and environmental problem solving. "Transdisciplinary" implies a problem-orientation that draws from a diverse web of knowledge across the natural sciences, social sciences, and humanities. In this spirit, the class is cross-listed in five UVM programs, including Business Administration (BSAD), Community Development and Applied Economics (CDAE), Economics (EC), Environmental Studies (ENVS), and Natural Resources (NR). The class will build on a diverse body of student knowledge and experience from across the UVM campus, draw on each perspective to address complex problems, and build a shared understanding of solutions that are *sustainable* in scale, *equitable* in distribution, and *efficient* in allocation.

The class serves two broad goals: (1) to establish a knowledge base in ecological economics from which to launch subsequent problem-based learning courses at UVM, and (2) acquire problem solving skills to address complex social challenges. To serve these goals, weekly readings from a recent textbook in ecological economics will introduce topics, and student groups will then apply course material to a group project involving local advocacy, government, and education institutions.

## Pre-requisite

At least sophomore-standing.

## Required Reading

Daly, Herman and Farley, Josh. 2003. *Ecological Economics: Principles and Applications*. Washington, DC: Island Press.

## Course Project

Each year a class project will develop from weekly communications with a sponsoring advocacy, government agency, or education institution. This year's project will develop to meet the needs of the Burlington Legacy Project (see [www.cedo.ci.burlington.vt.us/legacy/](http://www.cedo.ci.burlington.vt.us/legacy/)), a city-based initiative to "guide change for the economic, environmental, and social health of Burlington." Building from a recent student-led project that estimated the Genuine Progress Indicator (GPI) for Vermont,

Chittenden County, and Burlington, this term's project will involve designing and implementing a quality of life survey in the neighborhoods of Burlington. Findings will be used to assist the Legacy Project in its city planning efforts.

### **Quiz and HW Policy**

You will have the opportunity to reflect on readings and classroom discussion through regular take-home quizzes and short writing assignments. A course WebCT site will be used for posting assignments, completing written assessments, and conducting surveys of your fellow student opinions. Late homework or quizzes will not be accepted for credit.

### **Grading**

Your course grade will be determined by the following percentages:

- 50% Contribution to class project; evaluated by Jon, stakeholders, and your classmates
- 40% Homework and quizzes; evaluated in-class, on-line, and on paper
- 10% Jon's discretion to award class and project participation

### **Academic Integrity**

All of the evaluative work for this class will be take-home. Quizzes should be completed on your own. Collaboration on homework and the course project is encouraged; however everyone is expected to be an equal partner. Copying or free-riding on the sweat of others will be considered grounds for failing assignments and/or the class.

## Course Syllabus

The following dates and associated readings provide a general roadmap for the evolution of the class. Many dates are marked as t.b.a. (to be announced) to allow flexibility for extending discussion on certain topics, course project planning, and guest lectures drawn from the wealth of expertise in ecological economics and associated disciplines on the UVM campus.

Date	Topic	Reading
<i>Introduction to Ecological Economics</i>		
W 9-3	<u>Topic</u> : Introduction	D&F Intro.
F 9-5	<u>Topic</u> : Why Study Ecological Economics? <u>Guest Speaker</u> : Bob Costanza, Gund Institute for EE	D&F Ch. 1
M 9-8	<u>Topic</u> : The Fundamental Vision	D&F Ch. 2
W 9-10	<u>Topic</u> : Ends, Means, and Policy	D&F Ch. 3
F 9-12	<u>Class Project</u> : Introduction to Project Sponsor <u>Guest Speaker</u> : Betsy Rosenbluth, Burlington Legacy Project	
<i>The Containing and Sustaining Ecosystem</i>		
M 9-15	<u>Topic</u> : The Nature of Resources & the Resources of Nature <u>Guest Speaker</u> : Josh Farley, CDAE and Textbook Co-author	D&F Ch. 4
W 9-17	<u>Class Project</u> : Design of Burlington Quality of Life Survey	
F 9-19	<u>Topic</u> : Abiotic Resources	D&F Ch. 5
M 9-22	<u>Topic</u> : Biotic Resources	D&F Ch. 6
W 9-24	<u>Class Project</u> : Designation of Burlington Neighborhoods by Census Block Groups <u>Guest Speaker</u> : Margaret Bozik, City of Burlington	
F 9-26	<u>Topic</u> : From Empty World to Full World <u>Guest Speaker</u> : Roel Boumans, Gund Institute for EE <u>1<sup>st</sup> Assessment</u> : First Take-Home Exam on Chs. 1-7	D&F Ch. 7
<i>Microeconomics</i>		
M 9-29	<u>Topic</u> : The Basic Market Equation	D&F Ch. 8
W 10-1	<u>Topic</u> : Review of Supply and Demand	D&F Ch. 9
F 10-3	<u>Class Project</u> : Measuring Social Capital at the Neighborhood Scale – the Baltimore LTER Study <u>Guest Speaker</u> : Matt Wilson, Gund Institute for EE, and School of Business Administration	
M 10-6	<u>Topic</u> : Market Failures	D&F Ch. 10

<b>Date</b>	<b>Topic</b>	<b>Reading</b>
W 10-8	<u>Topic</u> : Ecological Economics in Practice <u>Guest Speaker</u> : David Batker, Director, Asia-Pacific Environmental Exchange (APEX)	
F 10-10	No Class – Fall Recess	
M 10-13	<u>Class Project</u> : Review results of survey pre-test; final revisions of survey	
W 10-15	<u>Topic</u> : Market Failures and Abiotic Resources	D&F Ch. 11
F 10-17	<u>Topic</u> : Market Failures and Biotic Resources <u>2<sup>nd</sup> Assessment</u> : Essay on “Do Prices Reflect Resource Scarcity”	D&F Ch. 12
<b><i>Macroeconomics</i></b>		
M 10-20	<u>Topic</u> : Macroeconomic Concepts: GNP and Welfare	D&F Ch. 13
W 10-22	<u>Class Project</u> : Group meetings and design of survey and sampling protocols.	
F 10-24	<u>Topic</u> : Money <u>Guest Speaker</u> : Gary Flo, Gund Institute for EE	D&F Ch. 14
M 10-27	<u>Topic</u> : Distribution	D&F Ch. 15
W 10-29	<u>Class Project</u> : Finalize survey and neighborhood sampling protocols	
F 10-31	<u>Topic</u> : The IS-LM Model	D&F Ch. 16
<b><i>International Trade</i></b>		
M 11-3	<u>Topic</u> : International Trade	D&F Ch. 17
W 11-5	t.b.a.	
F 11-7	<u>Topic</u> : Globalization	D&F Ch. 18
M 11-10	<u>Topic</u> : The Material World	Menzel et al.
W 11-12	<u>Topic</u> : Development in the Developing World	
F 11-14	<u>Topic</u> : International Flows and Macroeconomic Policy	D&F Ch. 19
<b><i>Policy</i></b>		
M 11-17	<u>Topic</u> : How to Intervene in a Complex System	Meadows
W 11-19	<u>Class Project</u> : Compilation of data; format and content of final papers and presentations	
F 11-21	<u>Topic</u> : General Design Principles for Policy	D&F Ch. 20

<b>Date</b>	<b>Topic</b>	<b>Reading</b>
M 11-24	<u>Topic</u> : Scale <u>3<sup>rd</sup> Assessment</u> : Take-home exam on macroeconomics and international trade	D&F Ch. 21
W 11-26	No Class – Thanksgiving Recess	
F 11-28	No Class – Thanksgiving Recess	
M 12-1	<u>Topic</u> : Just Distribution	D&F Ch. 22
W 12-3	t.b.a.	
F 12-5	<u>Topic</u> : Efficient Allocation	D&F Ch. 23
M 12-8	t.b.a.	
W 12-10	t.b.a.	

Final presentation to Burlington Legacy Project scheduled during exam period

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