Introduction to Ecological Economics

ENVS 141, NR 141
M W F 9:35 – 10:25 a.m.

Instructors	Jon Erickson, Professor of Ecological Economics
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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. As such, 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 build 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 textbook in ecological economics will introduce topics, and student groups will then apply course material to a class project.

Pre-requisite

At least sophomore-standing.

Required Reading

Daly, Herman and Farley, Joshua. *Ecological Economics: Principles and Applications*. Island Press, Washington, DC, 2011 (second edition).

Course Project

Each year a class project will develop from a partnership with a sponsoring institution. In year's past this class has partnered with the Burlington Legacy Project, Vermont Businesses for Social Responsibility, TruCost LLC, UVM Continuing Education, Encyclopedia of Earth, Lake Champlain Basin Program, VT State Housing Authority, VT Natural Resources Council, VT Agency of Natural Resouces, VT Public Interest Research Group, among others. Class outputs have included peer-reviewed journal articles, cases in an ecological economics workbook, online learning modules, and a documentary film. Projects have been presented to project sponsors, including government and non-governmental entities, as well as at conferences and workshops.

Group Work

There is no getting around working in groups beyond college, so we might as well practice. All of your project work will occur in small groups, including brainstorming, development, and presentations. Class discussion of readings will also be organized around

groups, as will attendance, collection of assignments, activity reports, and evaluation of take-home assessments.

Test and HW Policy

You will have the opportunity to reflect on readings and classroom discussion through regular take-home tests and short writing assignments. All assignments will be collected and handed in together for each group. Late homework or tests will not be accepted for credit.

Grading

Your course grade will be determined in part by individual work, and in part by group work. The following is a *rough guide* to your final grade in this class:

Individual Assessments

10% 1st Take-Home Exam (due 9/22)
10% 2nd Take-Home Exam (due 10/10)
10% 3rd Take-Home Exam (due 11/14)
20% Final In-Class Exam

Group Projects

20% Intermediate group projects and presentations and general homework
20% Final group project contribution and presentation
10% Attendance and participation

Academic Integrity

With the exception of the final exam, all other evaluative work for this class will be take-home. Take-home test questions may be discussed outside of class, but the final product should be your own work and in your own words. Collaboration on homework and course projects is required; however everyone is expected to be an equal partner. Copying or free-riding on the sweat of others will penalize your group and will be considered grounds for individually failing assignments and/or the class.

Course Schedule

The following dates and associated readings provide a general roadmap for the evolution of the class. Dates are flexible to allow 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. (Note: D&F = Daly & Farley textbook.)

Date	Topic	Reading	Leader
	Introduction to Ecological Economics		
M 8-25	Topic: Introduction	D&F Intro.	Erickson
W 8-27	Topic: Why Study Ecological Economics?	D&F Ch. 1	Erickson
F 8-29	Topic: The Fundamental Vision	D&F Ch. 2	Clement
W 9-3	Class Project: Project Development	Resilient Ones	
F 9-5	Topic: Ends, Means, and Policy	D&F Ch. 3	Clement
	The Containing and Sustaining Ecosystem		
M 9-8	Topic: The Nature of Resources & the Resources of Nature	D&F Ch. 4	Erickson
W 9-10	Topic: Abiotic Resources Guest Lecture: Nate Hagens, IIER	D&F Ch. 5	Hagens
F 9-12	Class Projects: Project Development		
M 9-15	Topic: Biotic Resources 1st Assessment: Take-Home Exam on EE Concepts	D&F Chs. 6-7	Erickson
W 9-17	Class Projects: Group Share		
F 9-19	Class Projects: Group Share		

Date	Topic	Reading	Leader
	Microeconomics		
M 9-22	Topic: The Basic Market Equation Due: 1st Exam	D&F Ch. 8	Erickson
W 9-24	Topic: Supply and Demand	D&F Ch. 9	Erickson
F 9-26	Topic: Market Failures	D&F Ch. 10	Clement
M 9-29	Topic: Market Failures and Abiotic Resources	D&F Ch. 11	Clement
W 10-1	Topic: Market Failures and Biotic Resources Guest Lecture: Taylor Ricketts, Gund Director	D&F Ch. 12	Ricketts
F 10-3	Topic: Human Behavior and Economics Guest Lecture: Brendan Fisher, Gund Institute 2nd Assessment: Take-Home Exam on Microecon	D&F Ch. 13	Fisher
M 10-6	Class Projects: Group Work		
W 10-8	Class Projects: Group Work		
F 10-10	Class Projects: Group Work Due: 2nd Exam		

Date	Topic	Reading	Leader
	Macroeconomics & International Trade		
M 10-13	Topic: Macroeconomic Concepts: GNP and Welfare Guest Lecture: Mairi-Jane Fox, Gund PhD Student	D&F Ch. 14	Fox
W 10-15	Topic: Money Guest Lecture: Josh Farley, CDAE Professor	D&F Ch. 15	Farley
F 10-17	Class Projects: Group Work		
M 10-20	Topic: Distribution	D&F Ch. 16	Erickson
W 10-22	Class Projects: Group Work		
F 10-24	Topic: The IS-LM Model	D&F Ch. 17	Clement
M 10-27	Class Projects: Group Work		
W 10-29	Topic: International Trade	D&F Ch. 18	Erickson
F 10-31	Topic: Globalization Guest Lecture: David Batker, Earth Economics	D&F Ch. 19	*Batker*
M 11-3	Topic: Financial Globalization	D&F Ch. 20	Clement
W 11-5	Topic: Washington Consensus and its EE Alternative	Erickson	Erickson
F 11-7	Class Projects: Group Work 3rd Assessment: Take-Home Exam on Macro & Trade		

Date	Topic	Reading	Leader
	Policy		
M 11-10	Topic: How to Intervene in a Complex System	Meadows	Clement
W 11-12	Topic: General Design Principles for Policy	D&F Ch. 21	Erickson
F 11-14	Class Projects: Group Work Due: 3rd Exam		
M 11-17	Topic: Scale	D&F Ch. 22	Clement
W 11-19	Topic: Just Distribution	D&F Ch. 23	Erickson
F 11-21	Topic: Efficient Allocation Guest Lecture: Herman Daly, Univ. of Maryland	D&F Ch. 24	*Daly*
24, 26, 28	No Classes – Thanksgiving Break		
M 12-1	Class Projects: Group Work / Exam Review		
W 12-3	Class Projects: Group Work / Exam Review		
F 12-5	Vermont Youth Climate Summit		
F 12-8	In-Class Final Examination (7:30-10:15am)		