ECOLOGICAL ECONOMIC THEORY

Wednesdays, 6:15 to 9:15 p.m.

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Office Hrs	Mondays, 1:00 – 2:30 pm; Tuesdays, 10:00 – 11:30 am

COURSE DESCRIPTION

Ecological economics is part of the on-going effort to reconcile economic theory and policy with accepted knowledge from other disciplines. Neoclassical welfare economics dominates economic policy worldwide, but is currently in a state of crisis over the dismantling of its two fundamental pillars: (1) a theory of human behavior embodied in a narrow view of individual rationality and selfishness, and (2) a theory of economic production built on an equally narrow view of competition, efficiency, and a marginal productivity theory of distribution. Many neoclassical theorists have largely abandoned rational choice and perfect competition as characterizations of the economic process; however, economic policy recommendations are still based on these outdated representations of human behavior, commodity production, and human wellbeing.

This course will address the major points of contention between neoclassical welfare economics and ecological economics. By virtue of being the only heterodox school of economics focusing on both the human economy as a social system, and as one constrained by the biophysical world, ecological economics recasts the scope and method of economic science. Ecological economic models of behavior encompass consumption and production in the broadest sense, including their ecological, social, and ethical dimensions, as well as their market consequences. As such it is a field of inquiry encompassing heterodox schools of thought including biophysical, behavioral, evolutionary, institutional, post-Keynesian, radical, feminist, and social economics. Ecological economics has particularly distinguished itself by its problem-based approach to methodological development and inquiry. The course will first establish the core of neoclassical economic theory, and then provide a critique of the core behavior and production models. We'll then turn to building an ecological economics as a transdisciplinary foundation for economic theory and practice.

OBJECTIVES

1. Develop a core understanding of the basic tenants of neoclassical economic theory.
2. Develop an interdisciplinary critique of neoclassical economic theory.
3. Develop a transdisciplinary foundation for economic problem-solving in the context of the scale and complexity of 21st century social and environmental problems.
4. Research, write, and present a paper that meets an academic conference/journal standard of review.
5. Develop peer mentoring relationships and connections to the Gund Institute learning community.

ORGANIZATION and EVALUATION

The class is organized as a graduate student seminar, with weekly readings and discussion, group and individual presentations, and work on a significant research paper. Students will be evaluated based on their participation in class discussion (10%), assignments (20%), an oral examination (20%), and a final writing project and presentation (50%). The final project will involve a number of milestones throughout the semester including topic brainstorm, abstract, paper outline, annotated bibliography, and a conference-style presentation. The gold standard for the final project is a publishable paper. Past classes have presented papers at national and international conferences, organized a campus symposium on ecological economics, and published in a special issue of *Ecological Economics*.

CERTIFICATE of GRADUATE STUDY in ECOLOGICAL ECONOMICS

This course serves as a gateway to the Certificate of Graduate Study in Ecological Economics. The EE Certificate is a 15-credit program, including 3 core classes and 2 electives. The core classes include this theory course, plus a methods and practice course. Candidates for the EE Certificate also have to demonstrate graduate-level experience across four competencies in natural sciences, social sciences, management, and quantitative methods. This can be done with courses (usually at least the 2 electives are used), but also previous graduate classes and life experience. Note that the Graduate College will only allow 6 credits to be transferred into the 15-credit program (including earned or currently enrolled UVM credits). Admission into the EE Certificate program is separate from admission into an MS or PhD program at UVM, requiring an additional (short) application.

READINGS

This is a graduate seminar, so readings will evolve as the course progresses. Students will be expected to identify articles and lead discussions. The readings on the syllabus represent a "learning core" from which other reading assignments will emerge. Readings will be made available as PDFs at http://www.uvm.edu/~jdericks/EE-F14/, and initially will include:

Ayres, R.U. and K.V. Kneese, "Production, Consumption, and Externalities," *American Economic Review* 59(3): 282-297, 1969.

Bromley, D.W., "The Ideology of Efficiency: Searching for a Theory of Policy Analysis," *Journal of Environmental Economics and Management* 19: 86-107, 1990.

Christensen, P., "Historical Roots for Ecological Economics – Biophysical versus Allocative Approaches," *Ecological Economics* 1: 17-36.

Conrad, J., *Resource Economics*, Cambridge University Press, 1999, Chs. 1-4.

Daly, H.E., "Introduction to the Steady-State Economy," in H.E. Daly (ed.), *Economy, Ecology, Ethics: Essays Toward a Steady-State Economy*, W.H. Freeman and Co., San Francisco, CA, 1980.

Daly, H.E., "Allocation, Distribution, and Scale: Towards an Economics that is Efficient, Just, and Sustainable," *Ecological Economics* 6: 185-193, 1992.

Farley, J., Erickson, J.D. and H. Daly, *Ecological Economics: a Workbook for Problem-Based Learning*, Island Press, Washington, DC, 2005.

Georgescu-Roegen, N., "Feasible Recipes versus Viable Technologies," *Atlantic Journal* 12(1): 21-31, 1984.

Gintis, H., "Beyond *Homo Economicus*: Evidence from Experimental Economics," *Ecological Economics* 35(3): 311-322, 2000.

Gowdy, J.M. "Behavioral Economics and Climate Change Policy," *Journal of Economic Behavior and Organization* 68: 632-644, 2008.

Gowdy, J.M., *Microeconomic Theory Old and New: a Student's Guide*, Stanford University Press, Stanford, CA, 2010, all chapters.

Gowdy, J.M. and J.D. Erickson, "The Approach of Ecological Economics," *Cambridge Journal of Applied Economics* 29: 207-222, 2005.

Norgaard, R.B., "The Case for Methodological Pluralism," *Ecological Economics* 1: 37-57, 1989.

Pearce, D., "Foundations of an Ecological Economics," *Ecological Modeling* 38: 9-18, 1987.

Spash, C.L., "New Foundations for Ecological Economics," *Ecological Economics* 77: 36-47, 2012.

Vatn, A. and D. Bromley, "Choices without Prices without Apologies," *Journal of Environmental Economics and Management* 26: 129-148, 1994.

ACADEMIC INTEGRITY

Any breach of the Code of Academic Integrity will be considered grounds for failure in the course. See: http://www.uvm.edu/~uvmppg/ppg/student/acadintegrity.pdf. 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 be considered grounds for individually failing assignments and/or the class.

COURSE OUTLINE AND MILESTONES

Date	Topic	Core Readings	Project Milestones
Neoclassical Economic Theory			
8/27	Introduction	Daly, 1980; Gowdy, Intro & Ch. 1	
9/3	Neoclassical Theory of the Consumer and Producer	Gowdy, Ch. 2 Conrad, Chs. 1-2	
9/10	General Equilibrium Model	Gowdy, Chs. 3&4; Conrad, Chs. 3-4	
9/17	Market Failure	Gowdy, Ch. 5; Conrad, Ch. 6 Ayres & Kneese, 1969	
Theoretical and Empirical Critique			
9/24	Behavior	Gowdy, Chs. 6&7; Gintis, 2000	
10/1	Biophysical	Georgescu-Roegen. 1984; Christensen, 1989	
10/8	Methodological	Gowdy & Erickson, 2005; Norgaard, 1989	Paper Topics
Building an Ecological Economics			
10/15	Scale	Daly, 1992	Paper Abstract
10/22	Distribution	Pearce, 1987	
10/29	Efficiency	Vatn & Bromley, 1994; Bromley, 1990	
11/5	Transdisciplinary Problem-Solving	Farley, Erickson, & Daly, 2005	Paper Outline
11/12	Policy	Gowdy, Chs. 8&9; Gowdy, 2008	Annotated Bibliography
11/19	Oral Examinations	Spash, 2012	
11/26	Thanksgiving Recess – No Class		
12/3	Final Presentations		
12/8 (Mon)	Final Presentations		Final Paper