

NR 185, Principles of Ecological Economics

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Course Description

Ecology: from the Greek *oikos* (house) and *-logy* (study)

Economics: from the Greek *oikos* (house) and *-nomics* (management)

Despite their common linguistic roots, ecologists and economists have traditionally viewed the natural world and the choices we make about the human and natural economy in far different ways. Today, we recognize that the choices we make about what we eat, where we live, and what products we buy have real and large cumulative effects on our natural environment.

Ecological economics is a transdisciplinary field that seeks to bridge the gap between economics and the biophysical world upon which the human economy depends. For years the myth of a “economy versus the environment” trade-off have existed in the popular media and much of the public’s mindset. In this course, we will evaluate the size, geography, goals, and importance of the human economy and the economy of nature, and examine policy tools to reconcile the “economy vs. environment” standoff while creating a more sustainable future for the world.

Objectives

This course will contrast the differing worldview of neoclassical (“conventional”) economics and ecological economics, allowing students to reevaluate the relationship between the human economy and the economy of nature. This course should prepare you to understand mainstream economic issues through an ecological economic perspective, and to apply economic concepts to environmental issues.

As a transdisciplinary field, ecological economists values the contributions from a wide range of social and natural sciences. By evaluating an ecological economic issue in a diverse student group, you should learn to utilize different viewpoints in environmental and economic problem solving. Finally, at the end of the course, you should be able to propose policy solutions to economic problems that restore, rather than degrade, the environment.

Prerequisites

Prerequisites include introductory macroeconomics and introductory environmental science (EC11 and NR 1 or equivalents).

Course Mechanics

We will meet from 10:30-12 on Tuesdays and Thursdays for lecture and discussion sections. Although introductory material will be presented in lecture format, there are many opportunities for discussion and debate surrounding ecological economics, and weekly discussions will be held surrounding key issues presented in lecture and current events. Class size will be limited to 25 in order to facilitate discussion. Thus attendance and participation in class is critical. Assigned readings will be provided to the student through the course of the semester; students are expected to come prepared to discuss key points from readings and the lecture.

Course Website

It is your responsibility to check the course website regularly. Announcements and additional readings not from the textbook will be posted on the website. The website also has a links section that should be helpful during your research for the final project.

Textbook

Daly, H.E. and J. Farley. 2003. Ecological Economics: Principles and Applications. Island Press: Washington, DC.

Evaluation/Grading

Grading will be based on a midterm and final exam, class attendance/participation, regular short writing assignments, and a final project. The midterm and final exam will be in short answer and essay format.

The final project will involve an ecological and economic analysis of a local, national, or global issue of your choice and approved by the instructor. Since ecological economics is a transdisciplinary field, the project will be completed in groups of 3-4 students, and groups should strive to include at least one member from diverse majors or backgrounds, including at least one economics and one natural resources major. Each group will produce one 12-15 page paper, and will present their project (in a 15-minute oral presentation) to the class during the last two weeks of the course.

The short writing assignments are designed to help prepare for your final paper. These will be completed weekly, but the responsibility for writing will rotate between group members. Each will be a weekly 1-2 page summary of that week's class topic and how it relates to your final project.

Midterm Exam	20%
Final Exam	20%
Short Writing Assignments	20%
Final project	30%
Participation	10%

Academic Honesty

The University academic honesty policy will be followed for this class. Consequences for academic dishonesty are serious, and can result in failing the course or even expulsion from the University. Although group work is generally encouraged (especially for the final project), work on the exams must be your own. Any work not yours must be properly cited or acknowledged (we'll review proper citation methods when preparing for the project).

Schedule

Week 1: What is ecological economics? Circular flow and other models of the economy
Readings: Daly and Farley Chapters 1 and 2

Week 2: Sizing up the economy
Readings: Daly and Farley Chapters 4 and 7
Form groups for final project

Week 3: Economic growth in neoclassical and ecological economics
Readings: Check website

Week 4: Goals of ecological economics
Readings: Daly and Farley Chapter 3
Choose project topics and submit to instructor for approval

Week 5: Rivalness, excludability, and resource types
Readings: Daly and Farley Chapters 5 and 6

Week 6: Capital types and substitutability
Readings: Check website

Week 7: Market failure
Readings: Daly and Farley Chapters 10, 11, and 12

Week 8: Review and **Midterm exam**

Week 9: GNP and Welfare
Readings: Daly and Farley Chapter 13

Week 10: Money
Readings: Daly and Farley Chapter 14

Week 11: Globalization
Readings: Daly and Farley Chapters 17 and 18
Draft of presentation paper due

Week 12: Ecosystem service valuation

Readings: Daly and Farley Chapters 20 and 21

Comments on paper provided

Week 13: Policy tools

Readings: Daly and Farley Chapters 22 and 23

Week 14: **Student presentations**

Week 15: **Student presentations**

Final Exam: **Date and time TBA**