

Econ 3310: Ecological Economics
Prof. Daphne Greenwood
Office Hours: 3-4 MW and by appointment

Fall 2011/UCCS
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Ecological economics builds on recent discoveries in natural and physical science as well as in economic behavior to approach the “economic problem” in a different way than mainstream (neoclassical) economics has. Some examples are: 1) natural resources are fundamentally different from other factors of production (non-renewability of some resources, non-market nature of ecosystem services) 2) treatments of time and values and 3) a primary goal of sustainable development rather than economic growth. Ecological economics uses many tools from neoclassical analysis but extends the economics tool box for *all areas of resources* (labor, capital, etc.). The net result is a new way of thinking about economics and some very different policy prescriptions. These tools will be applied to the recent financial crisis as well as to environmental problems.

OBJECTIVE: Students complete the course with a better understanding of...

1. The nature of environmental services from air and water, forests, biodiversity, etc.
 - a. Greenhouse effect and global warming or climate change
2. Strengths/ limitations of neoclassical analysis, especially regarding natural resources
 - a. Dynamic systems analysis vs. static equilibrium analysis (*ceteris paribus*)
 - b. Entropy and the first and second laws of thermodynamics → economics
 - c. Limitations of traditional discounting to net present value for long periods
3. “Win-wins” and trade-offs: environmental protection and economic well-being
 - a. Taking account of full costs and benefits when there is market failure
 - b. Cost-benefit analysis vs. cost-effectiveness analysis

Required: *Ecological Economics*, 2nd ed., Herman Daly and Joshua Farley (DF)
No Impact Man, Colan Bevan (B)

Class Etiquette: Mutual cooperation and respect between students and professor are the bottom line. To successfully complete this class, remember these basic rules:

- **Regular attendance** is expected; enter and be seated quietly if unavoidably late
- If military or other job or family responsibilities may interfere, please discuss with me as soon as possible. **If you miss class:** check for any handouts, assignments, etc.
- Do not allow other people to schedule doctors appts, airplane departures, etc. for you during our class hours- **if absolutely necessary to arrive late/leave early, please notify me in advance and take a seat close to the door so as not to disturb others**
- **Office hours require no appointment...**other times can be arranged, even by e-mail
- **E-mail** is the best way to reach me outside office hours -- I check mail from **official university accounts** daily. Other private accounts may not pass the spam filter.....
- **No electronic devices during class or exams...**cell phones, texting, twittering, excessive talking distract others, please refrain so that you can participate more fully
- **Review LAS plagiarism policies online or with writing center staff. Penalties: F for assignment or entire course, permanent expulsion from UCCS.** The internet makes plagiarism easier (intentional or inadvertent... but also easier to catch.
- If you have a **disability**, contact Disability Services Office (Main Hall 105, 255-3354) during first week of classes and inform me of the accommodation requested

CLASS PHILOSOPHY:

College is the time to open your mind to new ideas and information...so rather than immediately “disagreeing” and building your argument when you hear something that blows your mind... try this strategy. Focus first on understanding new information, analysis, policy recommendations, etc. from the book, another student, or your professor. Then take time to be thoughtful in building *questions about that* based on logic, your prior knowledge, or your values (what many call *critical thinking*). This enables you to be respectful and polite without deferring to authority or to majority opinion and also helps you better understand your “opponent.” These are great life and work skills! They also contribute to a strong intellectual basis for your own ideas and philosophy – also an important part of a college education.

Students learn more when they work on their own and when they participate in discussion. Therefore, the emphasis in this course is on individual writing and class discussion.

GRADING: Based on 92% of 350 for A, 90% for A-, etc.

Weekly reaction papers or assignments @ 10 points	140 pts.
Class attendance 2-5 points each (above 3 is XCR)	66 pts.
Outside research assignments	90 pts.
Final paper	<u>100 pts.</u>
	396 pts. possible

WEEK OF	TOPIC COVERED	READING
8/22	What is Ecological Economics? <i>How to be an Ecological Economist?</i> Assignment: E-mail me for economic/philosophical questions The Ecological Economics Approach	Intro and Ch. 1 (DF) Ch. 2 (DF)
8/29	Ends and Means, Values and Policies Individual Impact on Global Issues Reaction Paper #1	Ch. 3 (DF) Chs. 1 and 2 (B)
9/5	LABOR DAY HOLIDAY The nature of resources Reaction Paper #2	Chs. 4 and 5 (DF)
9/12	Biotic Resources Creating and Dealing with Trash Reaction Paper #3	Ch. 6 (DF) Chs. 3 & 4 (B)
9/19	Ecosystem Structure and Services Market Failure in Resources Reaction Paper #4	Ch. 7 & pp. 165-77 Ch. 10 (DF)
9/26	Market Failure and Abiotic Resources Reaction Paper #5	Ch. 10, 177-91 & Ch. 11 (DF)
10/3	Market Failure: Biotic Resources Reaction Paper #6	Ch. 12 (DF) Ch. 5 (B)

10/10	Human Behavior and Economics Reaction Paper #7	Ch. 13 (DF) Ch. 6 (B)
10/17	GDP and Well-Being Reaction Paper #8	Ch. 14 (DF) Ch. 7 (B)
10/24	NO CLASS MEETINGS THIS WEEK E-MAIL PROPOSAL: FINAL PAPER WITH SOURCES	
10/31	Pareto Optimality and Distribution Reaction Paper #9	Ch. 16 (DF) Ch. 8 (B)
11/7	Globalization Reaction Paper #10	Ch. 19 (DF)
11/14	Financial Globalization Reaction Paper #11	Ch. 20 (DF)
11/21	Policy Principles Reaction Paper #12	Ch. 21 (DF) Ch. 9, 193-8; Epilogue, 214-21(B)
	NOTE: PAPER DUE MONDAY, NO CLASS WEDNESDAY	
11/28	Sustainable Scale Reaction Paper #13	Ch. 22 (DF)
12/5	Policies to Improve Efficiency of Allocation Reaction Paper #14	Ch. 24 (DF)
12/12	FINALS WEEK – FINAL PAPER DUE ON EXAM DATE	

REACTION PAPERS:

- 1. Due by e-mail at midnight the night before they are discussed in class.**
2. The purpose is to share your understanding of the reading and your reactions (questions, additional thoughts) to it. For instance, you can identify what you find most interesting or surprising and why, as well as what additional questions the material raised for you. This provides a basis for class discussion, although you can certainly go beyond what you wrote once in class.
3. Focus on the assigned reading and make sure you show you have read it and understand it before you comment on it. Referencing page numbers (DF: 35 or B:40-42), paragraphs, tables, graphs or short quotes will help me follow how you understood the material. Then put something of yourself in the paper also.
4. Limit of one page, can be single spaced with spaces between paragraphs. **Be sure to put your name and the assignment number on the printed page as well as in the e-mail header--** I print to grade before class.
5. Papers worth a maximum of 8 points if turned in at beginning of class, 5 points if submitted after a class (**vs 10 pts turned in the night before by e-mail**)

FINAL PAPER: Pick a particular topic in ecological economics and research it more thoroughly. We will discuss paper length, format and possible topics in early October, several weeks before your proposal is due. Some useful resources follow, but you are not restricted to these.

SUPPLEMENTARY READING (optional):

Ackerman, Frank. 2008. *Poisoned for Pennies: The Economics of Toxics and Precaution*.

Daly, Herman. 1996. *Beyond Growth: The Economics of Sustainable Development*.

_____ and John B. Cobb. 1989. *For the Common Good: Redirecting the Economy toward Community, the Environment, and a Sustainable Future*.

Glennon, Robert. 2002. *Water Follies: Groundwater Pumping and America's Waters*.

Hahnel, Robin. 2010. *Green Economics*. M. E. Sharpe.

Hawken, Paul, Amory Lovins, and Hunter Lovins. 1999. *Natural Capitalism: Creating the Next Industrial Revolution*.

Hawken, Paul. 2005. *The Ecology of Commerce: A Declaration of Sustainability*.

James, Sarah and T. Lahti. 2004. *The Natural Step for Communities: How Cities and Towns can Change to Sustainable Practices*.

Pollan, Michael. 2006. *The Omnivore's Dilemma: A Natural History of Four Meals*
and *In Defense of Food*. 2008

Rosillo-Calle F. and Johnson, eds. 2010. *Food vs. Fuels: Guide to BioFuels*. Zed Books.

Schor, Juliet. 2010. *Plenitude: the new economics of true wealth*. Penguin Press.

Stern, Sir Nicholas. 2007. *The Economics of Climate Change: The Stern Review* (widely discussed report). Reviewed in *Journal of Economic Literature* 9/2007.

Other Useful Resources:

- *The International Journal of Ecological Economics*, online through UCCS library.
- *The Economist* and *Scientific American* on climate change, water, energy etc.
- Global Economic and Development Institute, Tufts Univ – micro/macro written from alternative perspective & climate change primer <http://ase.tufts.edu/gdae>

King Corn- documentary by two college students on a) how much of human body is now literally made of corn b) changes in how corn is grown and subsidized

An Inconvenient Truth – documentary made on global warming/climate change (2005?)