

ECO640 Applied Microeconomic Topics: Environmental Economics Spring 2007

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Office Hours: T TH 9am-10:30
M W 2:15 pm--3:15pm
And by appointment

Introduction: In its simplest form, environmental economics is about understanding classical market failures: externalities; common property goods; public goods; violations of assumptions of rationality. Yet, while these are classic problems, environmental economics is on the cutting edge of both theoretical and applied microeconomics. In the applied arena, economists are called on to undertake cost-benefit analysis as part of National Environmental Protection Act (NEPA), and to help policy makers understand trade offs and synergies between dollars spent on the environment or other programs such as defense, education, or health. Applied economists in the field of environmental economics have also been key to work done in both CERCLA (Superfund), and Natural Resource Damage Assessment work. In most cases this involves trying to determine the value of a goods that are not normally traded in markets but for which understand this value is very important.

Theoretical work has takes place along a number of different lines, but all have a foot in the real world. Environmental economists are very interested in how people form the values they have for goods (and bads), and how peoples' perceptions of risk and risky situation affect these values. Thus, many economists who are working in the area of utility theory are trying to understand why people might appear to violate our classical assumptions of rationality. Some economists work closely with experts in many other fields such as the natural sciences and other social sciences to develop an understanding how the natural, social and economic systems all interact with each other. Others work to develop new and innovative policies to help deal with current and future market failures and issues. Here we ask, what policy might efficiently.

Also an increasingly important concept, both in applied and theoretical terms is that of sustainability. We will take time in this class to examine issues surrounding sustainable economic and environmental development, beginning with what is sustainable development, and what role might economics have in the discussion of this rather slippery topic.

Text: Tietenberg, Tom (2007); *Environmental Economics and Policy*, (fifth edition) Boston, Pearson/Addison-Wesley.

Other readings will be assigned as necessary and will be available either from the library (on line) or on Blackboard in a readings folder.

Course Outline: We will begin with readings and discussion of a general nature that will help to introduce the issues of environmental economics in broad stroke terms. We will then go and look at some of the important papers in both the theoretical and applied areas. We will take as our starting point, the assigned text. However we will likely skip around both across the content of the text, and outside of it.

As will be discussed below, students will be encouraged to seek out papers of their own to read and present in class. Ideally this paper will have both a theoretic and an applied portion.

Oral Report: Each student will pick out a paper from the economics peer-reviewed literature to present in detail to the class. This paper may be the results of some sort of applied research effort, or a purely theoretical work. The presentation should last about 30 minutes with 5 minutes for questions. Presentations will begin after spring break and will be scheduled by the professor (although reallocation of presentation slots is allowed with agreement between all parties).

Students are encouraged to present papers that are applicable to the term project discussed below. Thus, you should consider focusing your research efforts early and find a paper to present that can be used later as part of your other research efforts.

Term Project: A major research project will be assigned at the end of the second week of class (January 22th), with a short (no more than 3 page) proposal to be due on Monday February 16th. The topic of the paper is up to each student, but should be based in the theoretical economic literature and have some connection to environmental issues. Students are encouraged to consider making this a possible first step in the exit paper process. Thus a thorough literature review will be an important factor in any paper.

The last two weeks of the class will be student presentations of their semester project. As with the oral paper presentations, we will have approximately 30 minutes for each presentation with 5 minutes for questions. The presentation need not cover all aspects of the final written paper, but can focus on an important aspect and cover it thoroughly in the somewhat limited time.

The final written paper will be due the last Monday of classes (April 23th).

Exams: As noted below, there will be two exams. Each will draw on the lectures, readings and presentations. The first exam will be Friday March 2nd (midterm), and the other during the final exam time for this class (7:45pm Thursday, May 3rd).

Grade: The grade in the class will be based on two in class written examinations, and a term project. The second exam is at the time of the final, but is not comprehensive. The grade will be determined as follows

Exam I	20%
Exam II	20%
Oral Report I	20%
Term Project Report	10%
Term Project	30%