Economics 3545-001
Environmental Economics
Fall 1993

Class: MWF 10:00-10:50 a.m.
Economics 117

Instructor: Thomas Rutherford
Economics Building 216a
Office Hours: Tuesday 9:30-11:00
Thursday 2:30-3:30

Texts

Summary:
This course concerns the application of mainstream economic analysis to environmental policy problems. The course is for non-majors, and the focus of the course is accordingly less technical than Econ 4545. Although the approach is less rigorous, the course will acquaint students with the principal analytic methods which are employed in the economic analysis of environmental policy. Among other topics, we will focus on the role of markets and economic instruments in achieving environmental objectives.

Students are required to have completed a course in microeconomics at the level of Econ 2010.

Evaluation:
In-class quizzes and participation 15%
Mid-term examination 25%
Term paper 25%
Final examination 35%

Dates:
Monday, September 13 Term paper perspective
Friday, September 17 Quiz #1 (in class)
Friday, October 1 Quiz #2 (in class)
Friday, October 15 Quiz #3 (in class)
Wednesday, October 27 Term paper - first draft
Friday, October 29 Mid-term examination
Friday, November 19 Quiz #4 (in class)
Friday, December 3 Term paper - final draft
I. Introduction

Tietenberg Chapter 1
Markandya+Richardson
Introduction (pp7-24)
Boulding (pp27-35)
Daly (pp36-49)

II. Microeconomics Background - Equilibrium and Efficiency

Tietenberg Chapter 2

III. Property Rights and Externalities

Tietenberg Chapter 3
Markandya and Richardson
Dales (pp50-59)
Hardin (pp60-70)

IV. Regulating the Market

Kennedy School Case Study
Tietenberg Chapter 4
Markandya and Richardson
Krutilla (pp71-80)
Gerking et al. (pp129-141)
Markandya (pp142-165)
Murdoch and Thayer (pp167-170)

V. The Population Problem
Tietenberg Chapter 5

VI. Resource Economics - Background
Tietenberg Chapters 6,7

VII. Recycling
Tietenberg Chapter 8
Kennedy School Case Studies

VIII. Economics of Pollution Control - An Overview
Tietenberg Chapter 14
Markandya and Richardson
Baumol and Oates (pp229-239)
Tietenberg (pp267-286)

IX. Air Pollution
Tietenberg Chapters 15-17

X. Water Pollution
Tietenberg Chapter 18

XI. Toxic Substances
Tietenberg Chapter 19
Schneider
Superfund questionnaire
Term Paper Information
Fall 1993

Deadlines

Abstract Monday, September 13
First Draft Wednesday, October 27
Final Draft Friday, December 3

There are two options for fulfilling the term paper requirement for this course:

Option 1: Research Paper

- Individually authored.
- 10 to 15 pages in length.
- Two or three references.
- Papers must be typed with attention to spelling and punctuation.

Any topic related to the material covered in the course or textbook is acceptable, subject to approval of your abstract. The bibliographies at the end of each chapter could be used as a good starting point for your library research.

A good term paper of this length is typically quite narrowly focused. You should try to address one question thoroughly rather than trying to address a range of questions related to a particular issue. For example, a paper investigating the results of marginal cost pricing in trash collection could first discuss the economic rationale for such a policy and then present a case study on the effectiveness of such policies in practice. A less focused paper topic, such as "issues in trash disposal", would be more difficult to write given the available space.

Option 2: Research Project

- From 1 to 4 authors.
- Single paper summarizing the results, 15 pages in length.
- Abstracts and papers must be typed with attention to spelling and punctuation.

Students undertaking this option will investigate a local or regional environmental issue from an economic perspective. If you are studying an issue such as local air quality, I believe that a contingent-valuation methodology would be better than a technical analysis of the costs of alternative policies. My primary concern with these projects is that they be sufficiently narrow that they can be conducted with the available time and resources.
Abstract

TDPs: A License to Pollute?

For many people, the policy of allowing industry to pollute for a price is ethically intolerable. These people believe that moving from a system using government-regulated standards to one based on market prices would encourage indiscriminate destruction to the environment. The purpose of this paper is to investigate the economic rationale and ethical implications of market-based pollution control strategies. The paper provides an overview of the various economic systems which have been employed for pollution control (permits and fees). The paper evaluates the advantages and disadvantages of these methods as compared with more traditional command and control schemes.

References


Dales, J.H. (1972) Pollution, Property and Prices, University of Toronto Press, Toronto

Howe, C. and D. Lee (1982) "Priority Pollution Rights" in Joeres and David (eds.) Buying a Better Environment, University of Wisconsin Press, Madison, WI.
