

**BOSTON COLLEGE
Department of Economics**

Economics 278

Environmental Economics

Spring 2000

Professor Frank Gollop
McGuinn 519
Office Hours: Tuesday/Thursday 3:00-4:30

Text: Callan, Scott J. and Janet M. Thomas. Environmental Economics and Management.
(Second Edition) Boston: Irwin, 2000.

Course Requirements:	First Midterm	20%
	Second Midterm	25%
	Economic Analyses (3)	15%
	Final	40%

Three Economic Analyses

Three 150-word essays are due over the course of the semester. Find an article in a newspaper or periodical (dated after January 1, 2000) discussing a current environmental issue. Write a brief analysis (no more than 150 words) of some economic concept or principle stimulated by something stated in the article. Submit your analysis with the article attached. Note, I am looking for economic analysis, not a book report describing the content of the article.

The due dates are Feb 24, Mar 23, and Apr 13.

No extensions will be granted. No essays will be accepted late. They are due at the beginning of class on the due date. Each essay is worth a maximum of five (5) points toward the final grade.

COURSE CALENDAR

THEORY

- | | | |
|------|---|-----------|
| I. | Introduction | Jan 18 |
| II. | Terminology of Environmental Analysis | Jan 20 |
| III. | Microeconomic Theory: Traditional Market Analysis | Jan 25-27 |
| IV. | Microeconomic Theory: Market Failure/Public Goods/Externalities | Feb 1-8 |

FIRST MIDTERM (45 minutes) Feb 10

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|-----|-----------------------|-----------|
| V. | Traditional Solutions | Feb 10-15 |
| VI. | Economic Solutions | Feb 15-22 |

POLICY

- | | | |
|-------|--|--------|
| VII. | Risk Analysis | Feb 24 |
| VIII. | Benefit-Cost Analysis | |
| | A. Measuring Benefits | Feb 29 |
| | B. Measuring Costs | Mar 2 |
| | C. Decision-Making Using Benefit-Cost Analysis | Mar 14 |

SECOND MIDTERM (75 minutes) Mar 16

APPLICATIONS

- | | | |
|-----|--|-----------|
| IX. | Air Pollution | |
| | A. Evolution of U.S. Policy | Mar 21 |
| | B. Mobile Sources: Case Study of Autos | Mar 23 |
| | C. Stationary Sources | Mar 28 |
| | D. Case Study of Electric Utilities | Mar 30 |
| | E. Global Warming: Greenhouse Gases | Apr 4 |
| X. | Hazardous Waste | Apr 6-11 |
| XI. | Municipal Solid Waste | Apr 13-18 |

OPEN DISCUSSION

- | | | |
|------|--------------------------|--------------|
| XII. | Topics Selected by Class | Apr 20-May 2 |
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SYLLABUS

THEORY

- I. Introduction
- II. Terminology of Environmental Analysis
Chapter 1
Salinas-Leon, Roberto, "Green Herrings: NAFTA and the Environment,"
Regulation, (Winter 1993), pp. 29-34.
- III. Microeconomic Theory: Traditional Market Analysis
Chapter 2
- IV. Microeconomic Theory: Market Failure/Public Goods/Externalities
Chapter 3
- V. Traditional Solutions
Chapter 4
Kellogg, Michael, "After Environmentalism," Regulation, Number 1 (1994),
pp. 25-34.
- VI. Economic Solutions
Chapter 5

POLICY

- VII. Risk Analysis
Chapter 6 (read for context); Chapter 7
- VIII. Benefit-Cost Analysis
 - A. Measuring Benefits
Chapter 8
Brennan, Timothy J., "Discounting the Future: Economics and Ethics,"
Resources, No. 120 (Summer 1995), pp. 3-6.
 - B. Measuring Costs
Chapter 9
Braconi, Frank, "Environmental Regulation and Housing Affordability,"
Cityscape, 2 (September 1996), Excerpts distributed in class.
Portney, Paul R. and Winston Harrington, "Health-Based Environmental
Standards: Balancing Costs with Benefits," Resources, No. 120 (Summer
1995), pp. 7-10.
 - C. Decision-Making Using Benefit-Cost Analysis
Chapter 10
Viscusi, W. Kip, "Secondhand Smoke," Regulation, 3, (1995), pp. 42-49.

APPLICATIONS

- IX. Air Pollution
 - A. Evolution of U.S. Policy
Chapter 11
 - B. Mobile Sources: Case Study of Autos
Chapter 12 (pp. 322-41)
 - C. Stationary Sources
Chapter 12 (pp. 342-69)
 - D. Case Study of Electric Utilities
 - Maloney, M.T. and Bruce Yandle, "Cleaner Air at Lower Cost: Bubbles and Efficiency," Regulation (May/June 1980), pp. 49-52.
 - Noll, Roger, "Implementing Marketable Emissions Permits," American Economic Review (May 1982), pp. 120-24.
 - Gollop, Frank and Mark Roberts, "Cost-Minimizing Regulation of Sulfur Emissions: Regional Gains in Electric Power," Review of Economics and Statistics (February 1985), Introduction and sections III and IV; section II optional.
 - E. Global Warming: Greenhouse Gases
Chapter 13 (pp. 382-405)
 - Gollop, Frank, Kelly Chaston, and Kathleen Lang, "The Battle Against Major Air Pollutants: Some Wartime Statistics," Working Paper (September 1996).
- X. Hazardous Waste
Chapter 17
- XI. Municipal Solid Waste
Chapter 18