

**BOSTON COLLEGE**  
**Department of Economics**

**Economics 278**

**Spring 1999**

**Environmental Economics**

Professor Frank Gollop

Carney 244

Office Hours: Tuesday/Thursday 3:00-4:30

Text: Callan, Scott J. and Janet M. Thomas. Environmental Economics and Management.  
Boston: Irwin, 1996.

Course Requirements:	Midterm	35%
	Economic Analyses (3)	15%
	Final	50%

Due Dates for Economic Analyses: Feb 25, Mar 25, and Apr 15

**Course Outline**

THEORY

- |      |                                                                 |           |
|------|-----------------------------------------------------------------|-----------|
| I.   | Introduction                                                    | Jan 19    |
| II.  | Terminology of Environmental Analysis                           | Jan 21    |
| III. | Microeconomic Theory: Traditional Market Analysis               | Jan 26-28 |
| IV.  | Microeconomic Theory: Market Failure/Public Goods/Externalities | Feb 2-9   |
| V.   | Traditional Solutions                                           | Feb 11    |
| VI.  | Economic Solutions                                              | Feb 16-18 |

**MIDTERM**

Feb 23

POLICY

- |       |                                                |        |
|-------|------------------------------------------------|--------|
| VII.  | Risk Analysis                                  | Feb 25 |
| VIII. | Benefit-Cost Analysis                          |        |
|       | A. Measuring Benefits                          | Mar 9  |
|       | B. Measuring Costs                             | Mar 11 |
|       | C. Decision-Making Using Benefit-Cost Analysis | Mar 16 |

APPLICATIONS

- |     |                                        |           |
|-----|----------------------------------------|-----------|
| IX. | Air Pollution                          |           |
|     | A. Evolution of U.S. Policy            | Mar 18    |
|     | B. Mobile Sources: Case Study of Autos | Mar 23    |
|     | C. Stationary Sources                  | Mar 25    |
|     | D. Case Study of Electric Utilities    | Mar 30    |
|     | E. Global Warming: Greenhouse Gases    | Apr 6     |
| X.  | Hazardous Waste                        | Apr 8-13  |
| XI. | Municipal Solid Waste                  | Apr 15-20 |

OPEN DISCUSSION

- |      |                                |              |
|------|--------------------------------|--------------|
| XII. | Topics to be Selected by Class | Apr 22-May 4 |
|------|--------------------------------|--------------|

**Course Requirement: Three Economic Analyses**

Three 150-word essays are due over the course of the semester. You are to find some current event (dated after January 1, 1999) concerning some environmental issue reported in a newspaper or periodical and then submit a copy of the article together with a brief (no more than 150 words) analysis of some economic aspect stimulated by something stated in the article.

The due dates are Feb 25, Mar 25, and Apr 15.

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 five (5) points toward the final grade.

**Economics 278  
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 (pp. 220-51)  
Brennan, Timothy J., "Discounting the Future: Economics and Ethics,"  
Resources, No. 120 (Summer 1995), pp. 3-6.
  - B. Measuring Costs  
Chapter 8 (pp. 251-65)  
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 9  
Viscusi, W. Kip, "Secondhand Smoke," Regulation, 3, (1995), pp. 42-49.

## APPLICATIONS

- IX. Air Pollution
  - A. Evolution of U.S. Policy  
Chapter 10
  - B. Mobile Sources: Case Study of Autos  
Chapter 11 (pp. 333-54)
  - C. Stationary Sources  
Chapter 11 (pp. 354-57; pp. 359-76)
  - 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 12 (pp. 390-415)  
Gollop, Frank, Kelly Chaston, and Kathleen Lang, "The Battle Against Major Air Pollutants: Some Wartime Statistics," Working Paper (September 1996).
- X. Hazardous Waste  
Chapter 16
- XI. Municipal Solid Waste  
Chapter 17