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

# **Economics 378 Environmental Economics**

Spring 1997

Professor Frank Gollop Carney 244 Office Hours: Monday/Wednesday 1:00-2:30

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

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

Due Dates for Economic Analyses: Feb 26, Mar 24, and Apr 16

# **Course Outline**

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THEO				
I.	Introduction	Jan 13		
II.	Terninology of Environmental Analysis	Jan 15		
III.	Microeconomic Theory: Traditional Market Analysis	Jan 22-27		
IV.	Microeconomic Theory: Market Failure/Public Goods/Externalities	Jan 29-Feb 5		
V.	Traditional Solutions	Feb 10		
VI.	Economic Solutions	Feb 12-17		
MIDT	TERM	Feb 19		
POLICY				
VII.	Risk Analysis	Feb 24		
VIII.	<ul><li>Benefit-Cost Analysis</li><li>A. Measuring Benefits</li><li>B. Measuring Costs</li><li>C. Decision-Making Using Benefit-Cost Analysis</li></ul>	Feb 26 Mar 10 Mar 12		
<u>APPL</u> IX.	ICATIONS Air Pollution A. Evolution of U.S. Policy B. Mobile Sources: Case Study of Autos C. Stationary Sources D. Case Study of Electric Utilities E. Global Warming: Greenhouse Gases	Mar 17 Mar 19 Mar 24 Mar 26 Apr 2		
Χ.	Hazardous Waste	Apr 7-9		
XI.	Municipal Solid Waste	Apr 14-16		
<u>OPEN</u> XII.	<u>I DISCUSSION</u> Topics to be Selected by Class	Apr 23-30		

### Economics 378 Syllabus

#### THEORY

I. Introduction

- II. Terminology of Environmental Analysis Chapter 1 Salinas-Leon, Roberto, "Green Herrings: NAFTA and the Environment," <u>Regulation</u>, (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," <u>Regulation</u>, 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)
  - B. Measuring Costs Chapter 8 (pp. 251-65) Braconi, Frank, "Environmental Regulation and HousingAffordability," <u>Cityscape</u>, 2 (September 1996), Excerpts distributed in class.
  - C. Decision-Making Using Benefit-Cost Analysis Chapter 9 Viscusi, W. Kip, "Secondhand Smoke," <u>Regulation</u>, 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," <u>Regulation</u> (May/June 1980), pp. 49-52.
    - Noll, Roger, "Implementing Marketable Emissions Permits," <u>American</u> <u>Economic Review</u> (May 1982), pp. 120-24.

Gollop, Frank and Mark Roberts, "Cost-Minimizing Regulation of Sulfur Emissions: Regional Gains in Electric Power," <u>Review of Economics and</u> <u>Statistics</u> (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

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Course Requirement: Economic Analyses

Three 150-word essays are due over the course of the semester. You are to find some current event 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 26, Mar 24, and Apr 16. No extensions will be granted. No essays will be accepted late. They are due at the <u>beginning</u> of class on the due date. Each essay is worth five (5) points toward the final grade.