

THE UNIVERSITY OF BRITISH COLUMBIA

Department of Economics

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ECONOMICS 371

ECONOMICS OF THE ENVIRONMENT

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**Scope of the Course:**

This course focuses on linkages between the economy and the environment, and on the analysis of policies to deal with environmental problems. The main emphasis will be on pollution, although issues such as fisheries, waste disposal, climate change, and sustainable development will also be discussed. Considerable emphasis will be given to international environmental issues.

Related courses offered by the Economics Department include Economics 370 (Cost Benefit Analysis), 471 (Non-renewable Resources) and 472 (Renewable Resources).

**Prerequisite:**

Economics 101/102. I will assume that all students are familiar with the basic concepts of microeconomics which are taught in Economics 101/102.

**Requirements:**

Midterm Exam (30%)  
Final Exam (50%)  
Assignments (20%)

**Textbook:**

Barry Field and Nancy Olewiler, *Environmental Economics*, (updated second Canadian Edition, McGraw-Hill Ryerson, 2005)

**Important Note:** I will not always follow the textbook in this course: material will be drawn from various sources. However, some readings from the above book will be required.

**Other Useful References:**

*Resources for the Future* website: <http://www.rff.org/>

## Preliminary Course Outline and Reading List

Some additional readings may be suggested throughout the course. **Some of the readings below are optional.** Required readings will be announced in class.

### 1. Introduction

Field and Olewiler, Ch. 1-2

Diamond, Jared, "[Easter Island's End](#)," *Discover Magazine*, Aug. 1995.

Fullerton, Don and Robert S. Stavins. (1998). "[How Economists See the Environment](#)." *Nature* Vol. 395, Oct. 1, 1998: 433-34.

### 2. Externalities

Hardin, G. "[The Tragedy of the Commons](#)" *Science*, New Series, Vol. 162, No. 3859 (Dec. 13, 1968), pp. 1243-1248

Field and Olewiler, Ch. 3-5.

### 3. Pollution Regulation

#### Criteria for evaluating environmental policies

Field and Olewiler, Ch. 9

#### Property Rights

Field and Olewiler, Ch. 10

Coase, R.H., "[The problem of social cost](#)," *Journal of Law and Economics*, 3 (1960): 1-69.

Deweese, D.N., "[The role of tort law in controlling environmental pollution](#)" *Canadian Public Policy* XVIII (1992): 425-42.

Peter S. Menell, "[The Limitations of Legal Institutions for Addressing Environmental Risks](#)," *The Journal of Economic Perspectives*, Vol. 5, No. 3 (Summer, 1991), pp. 93-113

Demsetz, Harold "[Toward a Theory of Property Rights](#)," *American Economic Review* 57, 2, p. 347-359, 1967

#### Taxes, Subsidies, Standards, and Permits

Field and Olewiler, Ch. 9-14.

Don Fullerton, Andrew Leicester, and Stephen Smith. "[Environmental Taxes](#)" Tax Reform in the UK (forthcoming). Ed. James Mirrlees. Oxford: Oxford University Press, 2009. [The required part of this paper for our class is pp. 1-14]

Tietenberg, "[Transferable discharge permits and the control of stationary source air pollution](#)," *Land Economics*, 5 (1980): 391-416, reprinted in Dorfman and Dorfman, Ch. 15.

Chris Costello, Steven Gaines and John Lynham, "Can Catch Shares Prevent Fisheries Collapse?" *Science*, Sept 19, 2008

Stavins, R.N., "[What Can We Learn from the Grand Policy Experiment? Lessons from SO<sub>2</sub> Allowance Trading](#)". *The Journal of Economic Perspectives*, Vol. 12, No. 3 (Summer, 1998), pp. 69-88

Tietenberg, T., "[Tradable permits for pollution control when emission location matters: What have we learned?](#)" *Environmental and Resource Economics* 5(1995): 95-113.

Grafton, Q., "[Individual transferable quotas: theory and practice](#)," *Reviews in Fish Biology and Fisheries* 6 (1996): 5-20.

Ian Parry, "[Should we abandon Cap and Trade in favor of a CO2 Tax?](#)," *Resources*, Summer 2007.

William D. Nordhaus, 2007, "[To Tax or Not to Tax: Alternative Approaches to Slowing Global Warming.](#)" *Review of Environmental Economics and Policy* 1: 26-44

#### 4. Measuring Environmental Costs and Benefits

Field and Olewiler, Ch. 6-7.

W. Nordhaus, " A Review of the Stern Review on the Economics of Climate Change, *Journal of Economic Literature* 2007: 686-702

P. Dasgupta, " Comments on the Stern Review's Economics of Climate Change," Dec. 2006 (on his web page).

#### 5. Environmental Policy in Practice

Field and Olewiler, Ch. 15-20.

Fullerton and Kinnaman, "[Household responses to pricing garbage by the bag](#)," *American Economic Review*, Sept. 1996, 971-984.

#### 6. Economic Growth and the Environment

Gene Grossman and Alan Krueger "Environmental Impacts of the North American Free Trade Agreement" NBER Working paper 3914 <http://www.nber.org/papers/w3914>

Arrow, K.J. et al., "[Are We Consuming Too Much?](#)" *The Journal of Economic Perspectives*, Vol. 18, No. 3 (Summer, 2004), pp. 147-172

Stern, D., "[The rise and fall of the Environmental Kuznets Curve](#)," *World Development*, 32, August 2004, Pages 1419-1439

Field and Olewiler, Ch. 21

#### 7. International Trade and the Environment

Copeland, Brian R. and Sumeet Gulati, "[Trade and the Environment in Developing Countries](#)," (with S. Gulati), IPD Book Series: *Economic Development and Environmental Sustainability*, Volume Editors: Ramon E. Lopez, and Michael Toman. Series Editor: Joseph E. Stiglitz. Oxford University Press, 2006.

Copeland, Brian R. , "How does trade affect the environment?" June 2008 (available in supplementary readings file on course page). Just read p 1-20.

#### 8. Global Environmental Problems

Field and Olewiler, Ch. 22-23.

Supplementary readings to be added.