New York University
Environmental Studies Program
V36.0450.002, Fall 2009

Professor Maria Damon
Office: Puck 3004
Office Hours: M W, 2-3pm

ECONOMICS AND THE ENVIRONMENT

Course Time: Mondays and Wednesdays, 11am-12:15pm
Location: 194 Mercer St., Room 287

Course Description

Environmental economics is the study of how the earth's scarce resources are allocated by individuals and society, and how economic tools can contribute toward solutions to environmental challenges. Economics can offer unique perspectives on incentives to deplete and/or protect environmental resources, and can provide insights on valuing environmental resources and incorporating these values into policy design.

The goal of this course is to familiarize students with the role that economic thinking can play in understanding contemporary environmental issues. We explore ways that economics can be used to define, analyze, and resolve environmental challenges, emphasizing the optimal role of public policy. Broad concepts considered include: market failure; sustainability; valuation of social benefits provided by the environment; estimating social costs and benefits of alternate environmental policies; determining desirable levels of pollution control and choosing policies to achieve it; and managing natural resources, both renewable (e.g. forests, fisheries, and water) and non-renewable resources (e.g. oil and minerals).

Requirements

The class format will consist of lectures, discussions, and group projects. Grading is based on a midterm exam (35%), a group project (15%), and a comprehensive final exam (50%). The group project will be discussed in more detail subsequently.

Required Readings

The required text for the course is *Environmental and Natural Resource Economics: A Contemporary Approach* (2nd Edition), by Jonathan M. Harris. It is available at the Shakespeare & Co. Bookstore (http://www.shakeandco.com/index.php).

Other required readings are available online or on the course Blackboard site. When available, links to the readings are provided in the course schedule, below. All other readings, and/or instructions for accessing them on the web, will be made available on Blackboard throughout the semester.

Many of the assigned articles can be found in *The RFF Reader in Environmental and Resource Policy*, 2nd Edition, Wallace E. Oates, editor, Washington: Resources for the Future, 2006. Students are encouraged to purchase this book, but it is also available on reserve, and the assigned readings from this book are also available online (if logged into the NYU system).

Plan of Action

Below is a tentative list of topics and required readings. Each class period, specific readings will be assigned for the upcoming week. The reading assignment will be posted on the last slide of each class period's lecture notes, and the slides will be available on Blackboard.

NOTE: Because many issues related to climate and energy policy will be evolving this fall, with actions by the Senate and with the upcoming Copenhagen meetings, topics and readings in the second half of the semester might be substantially updated.

Optional readings, which may be used by students to supplement knowledge and understanding of particular subjects, are indicated with asterisks (*).

Topic	**Readings** ***(note: * indicates that a reading is optional)***
Course Overview	
Introduction to Environmental, Resource, and Ecological Economics	Harris Ch. 1 & 2 Mankiw, N.G. "10 Principles of Economics", pp. 3-12 in Economic Principles. (Blackboard)
Supply and Demand Theory	Harris, Appendix to Ch. 3, pp. 63-72. The Economist, 2007. "Briefing - Food Prices: Cheap No More", Dec. 8. (Blackboard) The Economist, 2009. "Whatever Happened to the Food Crisis?", Jul. 4. (Blackboard)
Markets and Efficiency	Environmental Policy Update #1: Gasoline Prices and Energy Supply (Blackboard) Fullerton D., and R. Stavins. "How do economists really think about the environment?" RFF Discussion Paper 98-29, 1998. http://www.rff.org/Documents/RFF-DP-98-29.pdf
Market Failure: Externalities	Harris, Ch. 3 and pp. 91-93. Frank, R.H., 2008. "Economic View: The Invisible Hand Is Shaking." The New York Times, May 25. (Blackboard)
Externalities, cont.	RFF Reader, Ch. 14: Parry, I. "Is Gasoline Undertaxed in the United States?" Resources, 2002. http://www.rff.org/RFF/Documents/RFF-Resources-148-gasoline.pdf

Topic	Readings *(note: * indicates that a reading is optional)*
	Mankiw, G.N., 2006. "Raise the Gas Tax." The Wall Street Journal, Oct. 20 (Blackboard)
	** Coase, R. 1960. "The Problem of Social Cost." Journal of Law and Economics. (Blackboard)*
Market Failure: Public Goods and Common Property Resources	Harris Ch. 4
	Hardin, G. 1968. "The Tragedy of the Commons." Science, 162(Dec. 13):1243-1248 http://www.sciencemag.org/cgi/reprint/162/3859/1243.pdf
Benefit-Cost Analysis	Harris Ch. 6
	"How much climate change is too much?" Jason Shogren and Michael Toman (RFF Reader: Ch. 37) http://www.rff.org/RFF/Documents/RFF-CCIB-25.pdf
Valuing the Environment: Theory, Methods, and Applications	Krupnick, A. and Juha Siikamaki. "How people value what nature provides." Resources. Spring 2007: 14-16. http://www.rff.org/rff/News/Features/upload/28493_1.pdf
	Polasky, S. "What's nature done for you lately: measuring the value of ecosystem services." Choices. 2008: 43-46. http://www.choicesmagazine.org/magazine/pdf/article_20.pdf
	RFF Reader, Ch. 5: Brennan, T. "Discounting the Future: Economics and Ethics" (On reserve.)
	Goulder, L. H. and R. N. Stavins, 2002. "Discounting: An Eye on the Future", Nature, 419, Oct. 17, 673-674 http://www.nature.com/nature/journal/v419/n6908/pdf/419673a.pdf
	"Contingent Valuation and Lost Passive Use: Damages from the Exxon Valdez Oil Spill", Richard T. Carson, Robert C. Mitchell, Michael Hanemann, Raymond J. Kopp, Stanley Presser, and Paul A. Ruud, Environmental and Resource Economics (25) No. 3, July 2003. http://are.berkeley.edu/~hanemann/Exxon%20Valdez%20Oil%20Spill.pdf
	Banzhaf, H.S., D. Burtraw, D. Evans, and A.J. Krupnick, 2005. "Forever Wild, But Do We Care? How New Yorkers Value Natural Resource Improvement." Resources: Summer 2005. http://www.rff.org/Publications/Resources/Documents/158/RFF-Resources-158_ForeverWild.pdf
	"The Viewing Value of Elephants", G. Brown, Jr., in Economics and Ecology: New Frontiers and Sustainable Development, E.B. Barbier, ed., Chapman and Hall, London, 1993. (On reserve.)
MIDTERM EXAM	**OCTOBER 21st, in class**

Topic	Readings *(note: * indicates that a reading is optional)*
Economics of Pollution Control	Harris Ch. 16
Policy Instruments: Standards, Taxes, Tradable Pollution Permits	RFF Reader: Ch. 9 "Market based approaches to environmental policy. Resources." Paul Portney. http://www.rff.org/rff/Documents/RFF-Resources-151-Marketapproaches.pdf RFF Reader: Ch. 38 "Choosing price or quantity controls for greenhouse gases." William Pizer http://www.rff.org/RFF/Documents/RFF-CCIB-17.pdf ** To learn more about the Acid Rain market and other links to pollution trading markets in general, see: http://www.epa.gov/airmarkt/progsregs/arp/basic.html and http://www.epa.gov/airmarkets/trading/index.html*
Guest Lecture: Nathaniel Keohane, Director of Economic Policy and Analysis Environmental Defense Fund	Harris Ch. 18
Information Disclosure (if time permits)	Tietenberg, T., 1997. "Information Strategies For Pollution Control", Keynote address at the Annual conference of the European Association of Environmental and Resource Economists, Tilburg, Netherlands, June. http://www.colby.edu/personal/t/thtieten/info_strat_full.pdf
Energy	Harris Ch. 13
Guest Lecture: Matthew Rudey CEO of Just Energy	Smith, R., 2007. "The New Math of Alternative Energy: Does Going Green Finally Make Economic Sense?" *The Wall Street Journal*, Feb. 23. (Blackboard)
Renewable Resources: Fisheries	Harris Ch. 14 Tierney, J, 2000. "A Tale of Two Fisheries", New York Times Magazine, August 27. (Blackboard)
Ecological Economics and Sustainability	Harris Ch. 7 & 8 RFF Reader: Ch. 18 "Greening the GDP." Joel Darmstadter http://www.rff.org/rff/Documents/RFF-Resources-139-greengdp.pdf ** RFF Reader: Ch. 41. "The difficulty in defining sustainability." Michael Toman. (On reserve)*
Climate Change and a Closing Policy Perspective	To be determined.
FINAL EXAM	**DECEMBER 14th, in class**