Economics 332: Environmental Economics
Rutgers University
Fall 2009

MW 2:50–4:10 pm; Campbell Hall A5
Professor Hilary Sigman, E-mail: sigman (at) econ.rutgers.edu
Office hours: New Jersey Hall 419, Monday 10:00 – noon, or by appointment

Course overview: This course uses economics to analyze public policies for environmental protection. It discusses the role of environmental policy in a market economy, conventional and incentive-based approaches to environmental policy, and tools for evaluating public policies. We will study examples from U.S. and international environmental policy.

Learning outcomes: Students will build on their understanding of microeconomics and learn to apply economic analysis to environmental issues. They will solve problems designed to capture major concepts from the class; these problems use and reinforce basic calculus and other mathematical and graphical analysis skills. Students will develop their understanding of econometrics in practice by learning about empirical studies in environmental economics. The course will also provide new knowledge about environmental challenges and public policy institutions.

Prerequisites: Intermediate Microeconomics and Econometrics. This is an "upper-level" elective for the Econ major.

Readings:

- Required text: Callan and Thomas, *Environmental Economics and Management*, 4th edition, Cengage, 2007 (ISBN 9780324320671). Do not get the version packaged with supplemental material. You may buy the old 3rd edition to save money; it should be nearly as good as the current one. Page numbers for the old edition are available on the class website.
- Recommended (more advanced) text: Charles Kolstad, *Environmental Economics*, Oxford, 1999 (ISBN 9780195119541). It should also be available at the bookstore and on reserve at Alex.
- Supplemental readings are available through Alex electronic reserves. The website and attached calendar have information on the supplemental readings. These readings are required.

Problem sets: Six problem sets will be distributed during the term. Timely submission of these problem sets will count for 10% of your course grade. You may drop one problem set and still get full credit for the problem sets. This dropped problem set gives you an automatic excuse for a date when you have a conflict, illness, or transportation problem. Otherwise, no problem sets will be excused for any reason, even very good reasons. Problem sets are due at the beginning of class on their due date. Late, faxed, or emailed problem sets will not be accepted, even with the best excuses.

Class web site: The class has a Sakai website. Under Resources, you will find problem sets, solutions, and sample exam questions. I will try to make lecture outlines available on the web before each class. The website also provides links to background information elsewhere on the web and a discussion board. Any emergency announcements (e.g., weather-related cancellations) will be sent through Sakai, so please make sure that the email address listed on Sakai is one that you check regularly.

Exams: Two in-class midterm exams (**October 12** and **November 9**) and a *cumulative* final exam at the time scheduled by the Registrar (**Tuesday, December 22, 12-3 pm**). The exams will be based on the lectures, readings, and the problem sets. Although the lecture and readings will not always cover the same material, you are responsible for the material in both. Please check to be sure that you can attend all the exams before deciding to take the class. **There will be no alternative exam dates**.

Grading policy: Course grades will be based on problem set completion (10%), midterms (22.5% each), and final (45%). All course grades will be curved to the average grade distribution of Economics 300 level classes. This grading policy will be followed strictly. No extra credit assignments will be available to students dissatisfied for any reason and no other criteria will be used in assigning grades.

Academic Integrity: Students must follow the Rutgers policy (http://academicintegrity.rutgers.edu/integrity.shtml). Academic integrity is a serious matter. All suspected violations will be referred to external authorities.

Rutgers Economics 332
Environmental Economics
Fall 2009 Calendar
Professor Sigman

Day	**Topic**	**Reading** (pp. in Callan & Thomas text)	**Problem set due dates**
W, 9/2	Introduction	Chapter 2, Supp. reading 1	
Tu, 9/8	Public goods	pp. 46–54	
W, 9/9	Externalities	pp. 54–61	
M, 9/14	The role of property rights	pp. 61–66	
W, 9/16	Design of environmental policy; Standards	Chapter 4	PS 1
M, 9/21	Taxes and subsidies	pp. 86–96	
W, 9/23	Tax and subsidy example: Municipal solid waste	Chapter 18	
M, 9/28	No class		
W, 9/30	Marketable permits	pp. 100–107	
M, 10/5	Marketable permit example: SO2 allowances	App 5.2, pp. 219, 223, 231–233	PS 2
W, 10/7	Review		
M, 10/12	**First Midterm Exam**		
W, 10/14	Legal liability as environmental policy and example: Superfund	pp. 335–343, Supp. readings 2 & 3	
M, 10/19	Monitoring and enforcement	Supp. reading 4	
W, 10/21	Measuring benefits of environmental policy	Chapter 7	PS 3
M, 10/26			
W, 10/28	Measuring costs of environmental policy	Chapter 8	
M, 11/2	Cost benefit comparisons	Chapter 9	
W, 11/4	Review		PS 4
M, 11/9	**Second Midterm Exam**		
W, 11/11	Clean Air Act	Chapters 10, 11, and 12	
M, 11/16			
W, 11/18	Incidence of environmental policies	Supp reading 5	
M, 11/23	Growth and the environment	pp. 392–394 (on EKC), Apps 1.2 (p. 12) and 1.3 (p. 14)	PS 5
M, 11/30	International trade and the environment	pp. 399–404, Supp. reading 6	
W, 12/2	Climate Change	pp. 247–258, Supp. reading 7	
M, 12/7			PS 6
W, 12/9	Review		
Tuesday, 12/22 12-3 pm	**Final Exam** (cumulative)		