

Economics 332: Environmental Economics, Section 2 (220:332:02)
Rutgers University
Fall 2013

MW 1:10-2:30 pm in Campbell Hall A4

Professor Hilary Sigman, E-mail: hsigman@rutgers.edu Phone: 848-932-8667

Office: New Jersey Hall 422, Office hours: Mondays, 10:30 – 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 apply the analysis to U.S. and international environmental policies.

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 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 factual knowledge of environmental challenges and public policies.

Prerequisites: Intermediate Microeconomics and Econometrics. This is an “upper-level” elective for the Economics major.

Readings:

- **Required text:** Callan and Thomas, *Environmental Economics and Management*, 6th edition, Cengage, 2012 (ISBN 978-1111826673). You may buy the 4th or 5th editions to save money; they should be nearly as good. Page numbers for the 4th and 5th editions will be available on the class website. Editions older than the 4th are not as good because the policy content has become out-of-date.
- **Required readings:** Available on the Sakai site. The website and attached calendar have information on these readings. They cover topics not in the main text.
- **Recommended text:** Charles Kolstad, *Environmental Economics*, Oxford, 2011 (ISBN 9780199732647). A more advanced text. It should also be available at the bookstore and on reserve at Alex. Page numbers for readings in this text will also be posted to the website.

Class web site: The class has a [Sakai website](#). Under Resources, you will find problem sets, solutions, readings, sample exam questions, class presentations, lecture outlines, and a chat room. The materials on the website are for your use only and *may not be reposted* to other sites.

Problem sets: Five problem sets will be posted. Timely submission of these problem sets will count for 10% of your course grade. You may drop one problem set without penalty. This dropped problem set gives you an automatic excuse: *save it* in case you need it because no additional problem sets will be excused, even for the very best reasons. Problem sets are due at the beginning of class on their due date. Late, faxed, or emailed problem sets will not be accepted.

Exams: Two in-class midterm exams (**Wed 10/9** and **Wed 11/13**) and a *cumulative* final exam at the time scheduled by the Registrar (**Wed, Dec 18, 8:30-11 am**). 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. Except in cases of documented medical necessity or family emergency, **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 with their grades for any reason. No other criteria or weights will be used to assign grades.

Attendance: Students are expected to attend all classes. If you expect to miss one or two classes because of illness or a family emergency, please use the University absence reporting website <https://sims.rutgers.edu/ssra/> to indicate the date and reason for your absence. An email is automatically sent to me. Reporting an absence through this system does not excuse missed exams and problem sets (see policies above). It is still your responsibility to find notes and make up any work you have missed.

Academic Integrity: Students must follow the [Rutgers policy](#). Academic integrity is a serious matter; all suspected violations will be referred to external authorities.

**Rutgers Economics 332
Environmental Economics
Fall 2013 Calendar
Professor Sigman**

Day	Topic	Reading (pp. in Callan & Thomas 6 th ed)	Problem set due dates
W, 9/4	Welfare economics and the environment	Reading 1 & Chapter 2	
M, 9/9	Public goods	pp. 52 – 61	
W, 9/11	Public goods		
M, 9/16	Externalities	pp. 61 – 69	
W, 9/18	The role of property rights	pp. 69 – 75	PS 1
M, 9/23	Valuing the environment	Chapter 7	
W, 9/25	Valuing the environment		
M, 9/30	Discounting	Chapter 9	
W, 10/2	Cost benefit comparisons		PS 2
M, 10/7	Review		
W, 10/9	First Midterm Exam		
M, 10/14	Design of environmental policy; Standards	Chapter 4, pp. 263–5	
W, 10/16	Taxes and subsidies	pp. 99–109	
M, 10/21	Tax and subsidy example: Municipal solid waste	Chapter 18	
W, 10/23	Marketable permits	pp. 114–120, Reading 2	
M, 10/28	Marketable permits	Reading 3	PS 3
W, 10/30	Legal liability as environmental policy	Readings 4 & 5	
M, 11/4	Liability example: Superfund	pp. 417–24	
W, 11/6	Monitoring and enforcement	Reading 6	PS 4
M, 11/11	Review		
W, 11/13	Second Midterm Exam		
M, 11/18	Example: US Clean Air Act	Chapters 10 and 12	
W, 11/20	Incidence of environmental policies	Reading 7	
M, 11/25	Income, growth, and the environment	pp. 483–5 (on EKC), Application 1.4	
M, 12/2	International trade and the environment	pp. 494–8, Reading 8	
W, 12/4	Public policies for climate change	pp. 299–322, Reading 9	
M, 12/9	Public policies for climate change		PS 5
W, 12/11	Review		
W, 12/18 8:30-11 am	Final Exam (cumulative)		