

**Environmental Economics and Policy (Econ 231-01)**  
**Fall 2010, Macalester College**  
**T-Th, 1:20-2:50 PM**

**Professor:** Sarah West  
**Office:** Carnegie 310-G  
**Office Hours:** M: 9:15-10:45 AM; T, TH: 3:00-4:00 PM, and by appointment  
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**Course Homepage:** <http://www.macalester.edu/~wests/econ231>  
**Preceptor:** Nina Wellander      **Nina's office hours:**

**Course Description and Objectives:**

This course studies the economics of public policy toward the environment. We start by examining the problem of market failure in the presence of externalities and public goods. Then, we consider public policy responses to these market failures, including command-and-control regulations, tax and subsidy incentives, marketable pollution permits, voluntary programs, and information as regulation. We consider these policies in the contexts of local pollution, climate change, threats to biodiversity, environmental justice, international trade, and development. In addition, we learn how to measure the costs and benefits of pollution control. By the end of the semester, you will learn how economists think about environmental problems, understand the advantages and disadvantages of a range of environmental policies, be able to conduct a cost-benefit analysis, and have a complete economic analysis of an environmental problem of your choice.

**Texts (both required):**

*Environmental Economics and Management: Theory, Policy, and Applications*, fifth edition, by Scott J. Callan and Janet M. Thomas (Fort Worth, TX: The Dryden Press, 2010). Additional readings will be put on the course website, sent via email, or handed out in class.

**Course Policies and Tips for Success:**

The class itinerary is included in this syllabus. Please note exam dates and assignment due dates now. You may **reschedule an exam only** if you have a conflicting religious holiday. You must make arrangements to reschedule at least one week before the scheduled exam time.

The only excuses for a **missed exam** are verifiable medical emergencies or absences for those students who represent the College in college-sponsored activities as specified in Macalester's *Class Attendance and Absences Policy* (see [http://www.macalester.edu/deanofstudents/handbook/acad\\_pol.htm#004](http://www.macalester.edu/deanofstudents/handbook/acad_pol.htm#004)). In the event of an excused missed exam, a weighted average of the other exam grade and the research paper grade will serve as the grade of the missed exam. I do not accept late assignments or those handed in electronically (article summaries may be handed in electronically). All assignments are due at the beginning of the class period.

A substantial amount of course content will be presented only in class. I urge you to work together on your homework, but each of you must write up your own assignment. Homeworks are generally long, so starting them early and working on a section each day is a good idea. Read actively and write down questions. Visit me often to make sure that you are clear on ideas presented in class. Check your email regularly for class updates.

Turn off your cell phone before coming to class. Laptop use is prohibited except for specific in-class exercises.

**Prerequisite:** Principles of Economics.

**Academic Honesty:**

Cheating on exams, using another's homework solutions, or failure to acknowledge the contributions of others' work to your own are serious offenses. Cheating or failure to properly reference sources will result in a grade of **F** for the exam or assignment and may result in a failing grade for the course. All cheating and plagiarism will be reported to the Dean of Academic Programs. For additional information on academic honesty, please consult the *Student Handbook* and the MAX Center Academic Honesty sheet available on the course homepage. If you remain in doubt about what constitutes cheating or plagiarism, you must consult with me.

**Grading:**

Homework (6 total):	15%
Article Summaries:	10%
Research Paper	30%
Exam 1 ( <b>Thursday, October 21</b> )	20%
Exam 2 ( <b>Thursday, December 9</b> )	25%

**Homework:**

There will be six homework assignments that consist of problem solving and short essays, and will count for 15% of the final grade.

**Article Summaries:**

A short written summary of 10 of the 14 readings indicated by "\*" should be handed in **via email** before the class period in which the reading is to be discussed. Please put the summary number in the subject line of the email (e.g. "Summary 2" for your second summary), put the summary in the body of the email, and save a copy of the email for yourself. The summaries will be graded on a pass/fail basis and count for 10% of your grade. Exams will draw on material from these summaries. Guidelines will be handed out separately.

**Research Paper:**

Each student will complete a research paper on an economic issue that is relevant to environmental economics. This project is to be done in six stages. The six stages, percentages of final grade allocated to each stage (for a total of 30%), and due dates are:

	<u>% of Grade</u>	<u>Due Date</u>
1. Email/meet with me (varies)	1%	by September 16
2. Project Proposal (1-2 pages)	2%	September 28
2. Revised Proposal (1-2 pages)	2%	October 12
3. Literature Review (5-6 pages)	5%	November 4
4. Final Paper Draft (12-15 pages)	5%	December 1
6. Final Paper (12-15 pages)	15%	December 16

All written submissions should be double-spaced and of 12 point Times New Roman font, have one-inch margins, and include references. Sources should be fully and properly referenced (see paragraph on Academic Honesty above). Please include page numbers. Please print papers double-sided, preferably on recycled paper, or single-sided on used paper. The page maximum is not negotiable; the limit **INCLUDING** references, tables, and figures, is 15 pages. **Papers that do not conform to these specifications will receive zero points. For the final paper, each spelling error after the fifth error will result in one drop of a grade (from B to B-, for example).** A simple way to find typos and errors is to read your paper aloud. Due to problems with software compatibility and server reliability, I do not accept electronic versions. Additional guidelines will be handed out separately.

**Tentative Course Schedule and Readings (Subject to Change)**

		Due
<p><b>Week 1: September 7, 9</b>                      <b>Introduction, Market Failure</b></p>		
<b>T</b>	Callan and Thomas, Chaps. 1 and 2 *“Climate Change,” Krugman, Paul. ( <b>link on course homepage</b> )	
<b>Th</b>	Callan and Thomas, Chap. 3: Public goods and externalities *“The Tragedy of the Commons,” Garrett Hardin ( <b>link on course homepage</b> )	
<p><b>Week 2 : September 14, 16</b>                      <b>Market Failure, Sustainability</b></p>		
<b>T</b>	Callan and Thomas, Chap. 3: Public goods and externalities	
<b>Th</b>	“Sustainable Development: Defining the Concept,” Tom Tietenberg ( <b>sent via email</b> )	<b>Last day to email re: paper</b>
<p><b>Week 3: September 21, 23</b>                      <b>Sustainability, Regulations</b></p>		
<b>T</b>	*“Sustainability: An Economist’s Perspective” by Robert M. Solow ( <b>link on course homepage</b> )	<b>Homework 1</b>
<b>Th</b>	Callan and Thomas, Chap. 4	
<p><b>Week 4: September 28, 30</b>                      <b>Market-Based Incentives</b></p>		
<b>T</b>	Callan and Thomas, Chap. 5	<b>Proposal</b>
<b>Th</b>	* Taxes versus Standards: Policies for the Reduction of Gasoline Consumption,” Sarah West ( <b>on course homepage</b> )	
<p><b>Week 5: October 5, 7</b>                      <b>Morality, Measuring Benefits and Costs</b></p>		
<b>T</b>	*“It’s Immoral to Buy the Right to Pollute (with replies),” Michael J. Sandel ( <b>sent via email</b> )	
<b>Th</b>	Callan and Thomas, Chapters 7 and 8 *“Valuing the Oil Spill’s Effects on Nature,” James Sanchirico. RFF Weekly Policy Commentary ( <b>link on course homepage</b> ) and “Economics, Habitats, and Biological Populations: Finding the Right Value,” James Sanchirico and Peter Mumby ( <b>link on course homepage</b> ).	<b>Homework 2</b>
<p><b>Week 6: October 12, 14</b>                      <b>Regression Analysis, Measuring Benefits, Uncertainty</b></p>		
<b>T</b>	Regression Analysis ( <b>handout</b> ), *“The Effect of Open Space on Single-family, Residential Home Property Values,” Soren Anderson ( <b>on course homepage</b> )	<b>Revised Proposal</b>
<b>Th</b>	Uncertainty ( <b>notes on course homepage</b> )	
<p><b>Week 7: October 19, 21</b>                      <b>Review and Exam</b></p>		
<b>T</b>	Exam Review	<b>Homework 3</b>
<b>Th</b>	<b>Exam 1</b>	
<p><b>Week 8: October 26, 28</b>                      <b>Research Paper Workshop, Fall Break</b></p>		
<b>T</b>	Research Paper Workshop	<b>1 percent for class participation</b>
<b>Th</b>	<b>Fall Break: No class</b>	

<b>Week 9: November 2, 4</b>		<b>Cost-Benefit Analysis</b>	
<b>T</b>	Callan and Thomas, Chapter 9. “The Benefits and Costs of the Clean Air Act 1990 to 2010” and “Final Hiawatha Corridor LRT Benefit Cost Analysis” ( <b>links on course homepage</b> )		
<b>Th</b>	“Cost-Benefit Analysis: An Ethical Critique” Steven Kelman, and “Replies to Steven Kelman,” James V. DeLong and others ( <b>sent via email</b> )		<b>Literature Review</b>
<b>Week 10: November 9, 11</b>		<b>Stationary Source Pollution, Environmental Justice</b>	
<b>T</b>	Callan and Thomas, Chap. 12. *“The 1990 Clean Air Act Amendments: Who Got Cleaner Air—and Who Paid for it?” Ron Shadbegian, Wayne Gray, and Cynthia Morgan ( <b>on course homepage</b> )		
<b>Th</b>	* “Effects of Socio-Economic and Input-Related Factors on Polluting Plants’ Location Decisions,” Ann Wolverton ( <b>link on course homepage</b> )		<b>Homework 4</b>
<b>Week 11: November 16, 18</b>		<b>EKC, Trade and the Environment</b>	
<b>T</b>	Callan and Thomas, Chap. 20. “The Environmental Kuznets Curve: A Primer” Yandle et al. ( <b>on course homepage</b> )		
<b>Th</b>	*Offshoring Pollution: Is the United States Increasingly Importing Polluting Goods?” Arik Levinson ( <b>link on course homepage</b> )		<b>Work on paper draft</b>
<b>Week 12: November 23, 25</b>		<b>Climate Change, Thanksgiving</b>	
<b>T</b>	Callan and Thomas, Chapter 13 *“Combating global warming: Is taxation or cap-and-trade the better strategy for reducing greenhouse emissions?” Ian W. H. Parry and William A. Pizer. ( <b>link on course homepage</b> )		<b>Homework 5</b>
<b>Th</b>	<b>Thanksgiving: No Class</b>		
<b>Week 13: November 30, December 2</b>		<b>Climate Change</b>	
<b>T</b>	*The Stern Review Report on the Economics of Climate Change, Executive Summary ( <b>on the course homepage</b> ) and “Is the Stern Review Economic Analysis?” Robert Mendelsohn ( <b>sent via email</b> ) Recommended: The Stern Review Report on the Economics of Climate Change, Chapter 6: Economic Modeling of Climate Change Impacts ( <b>link on the course homepage</b> )		<b>Final Paper Draft due Wednesday Dec. 1</b>
<b>Th</b>	*”The Stern Review of the Economics of Climate Change,” review by Martin Weitzman ( <b>link on the course homepage</b> )		
<b>Week 14: December 7, 9</b>		<b>Conclusion, Exam</b>	
<b>T</b>	* “Climate Change,” Paul Krugman ( <b>link on course homepage</b> )		<b>Homework 6</b>
<b>Th</b>	<b>Exam 2</b>		<b>Final Paper due Dec. 16</b>