PAI 777
The Economics of Environmental Policy
Spring 2019

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Office Hours (starting 1/29):
Monday 10:00-11:30
Tuesday 10:00-noon
or by appointment

Course Description: This course provides an introduction into the principles of environmental economics, with a focus on policy applications. The principal problem in any economics course is how to best allocate scarce resources. This holds true for environmental economics as well. However, environmental resources differ from other goods that economists study in that there is usually no market for them. Thus, government policies are needed to maintain and improve environmental quality.

We begin by examining how economic incentives lead to environmental problems, and discussing various policies that address these problems. Because economic analysis requires information on both costs and benefits, we next discuss methods for valuing the benefits of environmental amenities. The course continues with applications to various policy issues, including energy and water resources and the environment in developing countries. We conclude with a discussion of the political economy of environmental issues.

Goals of the course: The main objective of this course is for you to learn how to think critically about issues relating to environmental economics. Upon completion of this course, you should be able to explain the economic rationale for government involvement in environmental issues, and be able to discuss what the impact of such involvement will be. In particular, it is hoped that the class will provide you with a better understanding of current issues relating to the environment.

Accomplishing these goals requires not only a mastery of the theory of environmental economics, but also an ability to apply these theories to real world issues. As such, much of the content of the course will apply the basic tools of environmental economics to current event issues.

Learning to apply economics to the real world takes practice. The assignments for this class are designed to get you thinking and writing using economic analysis. In addition, classroom discussion plays an important role in developing the skills to apply economic theory to the real world. Active participation in discussions, both in class and via e-mail (discussed below) is vital to success in this course. For this reason, class participation will count towards ten percent of your course grade. Don’t be afraid to participate because you feel what you have to say isn’t important or may not be correct. Many of the things we will discuss in this class have no right answers. Your opinions matter! The class participation grade will consist of two components: participation in general class discussions and participation in discussions on the class e-mail discussion list. I will occasionally use the list to post follow-up questions to topics discussed in class.

Prerequisites: The prerequisite for this course is PAI 723, Economics for Public Decisions, or an equivalent course in microeconomics. If you have any questions about whether or not you have taken an appropriate course, please see me as soon as possible.
Class Home Page: The home page for this class is:

https://dcpopp.expressions.syr.edu/pai777/

You can also connect to the home page through my personal home page, which can be found at:

https://dcpopp.expressions.syr.edu

The web site includes information about assignments and links to other useful economic sites. These links may be particularly useful as you work on your research paper.

E-mail: All students in the class are required to have an e-mail account and to check e-mail regularly. An e-mail discussion list will be set up for the class, to which you should subscribe. Information on how to subscribe is included below. Participation in a class e-mail discussion list makes up part of your class participation grade. In addition, I will occasionally make announcements about assignments and class material via the discussion list. Not subscribing is not an appropriate excuse for missing these announcements.

E-mail discussion group: I have set up an e-mail discussion group for the class. All students are expected to subscribe to the mailing list. You may use this list for any class related activities, such as asking questions, continuing discussions from class, and instigating new discussions. I will use the list to keep you informed about assignments, answer questions, and instigate discussion. When messages are sent to the list, all students subscribed to the list will get the message.

I have already subscribed students who pre-registered for the course. If you have not yet been subscribed, please send an e-mail to listserv@listserv.syr.edu with the following message:

SUB EnviEcon Jan Smith

Note that this is all that need be in the body of the message, and that it must be typed in exactly as written, except, of course, that you should replace your name for Jan Smith. When you sign up, you will receive a message with detailed instructions for participating in the mailing list. This message will ask that you reply, so as to confirm that you intended to join the list. It is important that you remember to reply, or else you will not be added to the list!

A couple of technical notes: E-mails sent to the list are sent to EVERYONE who subscribes to the list. If you want to send a personal e-mail to a specific class member (or to me), use their e-mail address, not the list's address. The list is a good place to ask questions about class materials, because everyone can see the answer. It is not the way to let me know that you are going to miss class on Monday. For that you should send an e-mail to me personally. Also, I am considered the owner of this list. If you experience any problems, please e-mail me directly. My e-mail address is dcpopp@maxwell.syr.edu.
Reading: Two books are required for this class. They are:


Both texts are available at the Orange Bookstore. Older editions of either text are fine. The Stavins book is a compilation of readings from various sources. Thus, older editions may not have all of the articles that the new edition includes. However, if you choose to buy a used older edition, you should be able to find these articles elsewhere. In addition to these readings, there are several additional articles intended to supplement the text. The class web site includes links to these articles. When possible, direct links to the articles are provided. The remainder are available through the course reserve system at the Syracuse University library – a link to Blackboard, where these items can be found, is included for these articles.

The readings in Stavins and the supplemental readings have two purposes: to expose you to influential work in environmental economics and to highlight the relevance of environmental economics to current events. The first goal is accomplished through journal articles written by professional economists. Many of these are contained in Stavins. At times, these articles may get quite technical. When that occurs, you are encouraged to focus on the main arguments and conclusions of the paper, and to simply browse through the technical parts. The second goal is met be several shorter articles taken from current events publications. Articles in the *Review of Environmental Economics and Policy* and *Journal of Economic Perspectives* are particularly useful, as they fall under both categories. These articles usually provide summaries of work done by professional economists on current events issues. You may also find it helpful to consult other articles in this journal for paper ideas. In addition, I would be happy to help any student find the appropriate readings to fit their interests.

In addition to required readings, the syllabus also includes optional articles. These are marked with an asterisk (*). They are not included on the on-line reading list, but should be available at the library, usually in electronic form. Optional articles provide more detail on selected topics, and may be helpful for your research papers. In particular, Ph.D. students should find the optional articles a useful way to increase their exposure to the economic literature in the field.
Grading: Masters’ Students: Your grade in this course will be based on four take-home quizzes (16.5% each), and a research paper (34%). The first three take home quizzes will be handed out in class. Both the dates they are handed out and due are stated on the syllabus. These quizzes will focus on applications of the material discussed in class, and will be in the form of short problems or essay questions. The final take-home quiz will be available for you to sign out at your convenience during the final exam period.

Ph.D. Students: Ph.D. students may choose to complete the assignments for masters’ students listed above, or to instead complete the following assignments designed to get you thinking about the research process. Ph.D. students should come talk to me as soon as possible to discuss which option is appropriate for them. Students choosing the Ph.D. option will not take the exams. Instead, these Ph.D. students will complete a referee report of a working paper in the field. This will be due by the end of the final exam period, on Wednesday, May 8. In addition, the requirement for the research paper will be different, and will be divided into two parts:

- First, PhD students will complete a critical literature review (approximately 10 pages) on a topic of their interest related to the course. Students should meet with me to discuss both possible topics and to generate a list of relevant papers. The goal of the literature review is to get you thinking about potential research topics. This literature review is due on Wednesday, March 6.
- Second, the final paper for Ph.D. students will be a research proposal. That is, in addition to identifying an interesting question, you should think about how you would go about answering the question. Note that, given the time constraints of a one-semester course, it is not necessary that you carry out the research. This will be due at our last class meeting on Monday, April 29.

The grading for Ph.D. students choosing this option will be: the referee report (25%), the literature review (25%) and the research proposal (50%)

Finally, note that if you miss a class, it is your responsibility to find out if you missed any assignments or handouts. Not being present when an assignment was given out is not an acceptable excuse for missed or late work!

Research Paper: The major assignment for this class is a semester-long research paper on a topic of your choosing. The research paper will be due on the last day of class. It should be between 10 and 15 pages, double-spaced. I will hand out more details on the paper, including suggestions for topics, further into the course. The paper should apply the materials of the course to a public policy question. It should include a summary of the relevant theory that applies to your topic, and apply the theory to the problem to reach a conclusion. To make sure that you are on the right track, a one-page statement of your proposed research topic is due Wednesday, March 6. In it, you should state the question that you wish to address, briefly describe why it is important, and propose the means by which you will analyze your proposed topic. The final paper will be due at our last class meeting on Monday, April 29.
Academic Honesty: Syracuse University’s Academic Integrity Policy reflects the high value that we, as a university community, place on honesty in academic work. The policy defines our expectations for academic honesty and holds students accountable for the integrity of all work they submit. Students should understand that it is their responsibility to learn about course-specific expectations, as well as about university-wide academic integrity expectations. The policy governs appropriate citation and use of sources, the integrity of work submitted in exams and assignments, and the veracity of signatures on attendance sheets and other verification of participation in class activities. The policy also prohibits students from submitting the same work in more than one class without receiving written authorization in advance from both instructors. Under the policy, students found in violation are subject to grade sanctions determined by the course instructor and non-grade sanctions determined by the School or College where the course is offered as described in the Violation and Sanction Classification Rubric. SU students are required to read an online summary of the University’s academic integrity expectations and provide an electronic signature agreeing to abide by them twice a year during pre-term check-in on MySlice. For more information about the policy, see http://class.syr.edu/academic-integrity/policy/. The Violation and Sanction Classification Rubric establishes recommended guidelines for the determination of grade penalties by faculty and instructors, while also giving them discretion to select the grade penalty they believe most suitable, including course failure, regardless of violation level. Any established violation in this course may result in course failure regardless of violation level.

Of particular importance in this class, while you are free to cite the views of others in your work, the final product must be in your own words, and any references to the works of others, whether directly quoted or merely paraphrased, must be cited.

Religious holidays: SU’s religious observances policy, found at http://supolicies.syr.edu/emp_ben/religious_observance.htm, recognizes the diversity of faiths represented among the campus community and protects the rights of students, faculty, and staff to observe religious holy days according to their tradition. Under the policy, students are provided an opportunity to make up any examination, study, or work requirements that may be missed due to a religious observance provided they notify their instructors before the end of the second week of classes. For fall and spring semesters, an online notification process is available through MySlice/Student Services/Enrollment/My Religious Observances from the first day of class until the end of the second week of class.

If you believe that you need accommodations for a disability, please contact the Office of Disability Services (ODS), http://disabilityservices.syr.edu, located in Room 309 of 804 University Avenue, or call (315) 443-4498 for an appointment to discuss your needs and the process for requesting accommodations. ODS is responsible for coordinating disability-related accommodations and will issue students with documented disabilities Accommodation Authorization Letters, as appropriate. Since accommodations may require early planning and generally are not provided retroactively, please contact ODS as soon as possible.
Course Outline

I. Introduction
January 14 – What is Environmental Economics?
Reading: Field, Chapters 1 & 2

II. Tools of Economic Analysis
January 16 – Market Failures
Reading: Field, Chapter 3 (review: optional)
Field, Chapter 4
“Commons sense,” The Economist, August 2, 2008, p. 76.

January 23 – Modeling Pollution
Reading: Field, Chapter 5

III. Government Intervention in Environmental Policy
January 28 – Should the Government Intervene?
Reading: Field, Chapters 9 & 10
January 30 – Command and Control Policies for the Environment

Reading: Field, Chapter 11


February 4 & 6 – Emissions Fees and Subsidies

Reading: Field, Chapter 12


February 11 – Tradable Permits: theory

Reading: Field, Chapter 13
February 13 – Permit Trading Policy in Practice  


Take-home quiz 1 handed out in class on Wednesday, February 13. Due in Class Wednesday, February 20.

February 18 – Policy Instrument Choice: Theory and Air Pollution  

February 20 – Policy Instrument Choice: Water  
Reading:  Field, Chapter 14  

February 25 – Federalism and Environmental Policy  
Reading:  “Federalism and Environmental Protection: Case Studies for Drinking Water and Ground-Level Ozone,” Congressional Budget Office, November 1997. You only need to read chapter 1, which covers the relevant theory.  
February 27 – Behavioral Economics and Policy: Energy Efficiency


Journal of Policy Analysis and Management Point/Counterpoint on Internalities:


Take-home quiz 2 handed out in class on Wednesday, February 27. Due in Class Monday, March 4.

IV. Valuing Environmental Benefits & Costs

March 4 – Revealed Preference Approaches

Reading: Field, Chapter 7, pp. 130-144.


Statement of paper topics due in class Wednesday, March 6
March 6 – Stated Preference Techniques

*Reading:* Field, Chapter 7, pp. 144-152.


March 18 – Estimating Benefits


“Are you being served?,” *The Economist*, April 23, 2005, pp. 76-78.


March 20 – The Costs of Environmental Policies
Reading: Field, Chapter 8

March 25 & 27 – Making Use of Value Measures – Benefit-Cost Analysis
Reading: Field, Chapter 6
"Future lives matter," The Economist, December 8, 2018, 75.
V. Energy and Water Resources
April 1 – Energy Pricing


“Peering inside the Permian,” The Economist, October 20, 2018, 57-59.


Take home quiz 3 handed out in class on Wednesday, April 3. Due in Class Wednesday, April 10.
**April 3 & 8 – Alternative Energy Technologies**


April 10 – Water as a Scarce Resource


“From paddles to puddles,” The Economist, May 19, 2018, 34-35.

“Sources of discord,” The Economist, November 17 2018, 30-31.


VI. The Environment in Developing Countries

April 15 – Growth and the Environment


“Painted into a corner,” The Economist, February 24, 2018, 51-52.


April 17 – Environmental Issues in Developing and Emerging Economies


“How the other half cooks,” *The Economist*, April 7, 2018, 50-51.


VII. International Environmental Policies

April 22 – Policies to Promote Environmental Protection in Developing Countries


“He who pays the paupers…,” *The Economist*, November 5, 2011, 90.

April 24 – International Trade Agreements

Reading:
Field, Chapter 19-20
“Atmospheric pressure,” The Economist, April 19, 2003, p. 64.

VIII. Political Economy

April 29 – The Political Economy of Environmental Policy

Reading:
Adler, Jonathan H., “Rent Seeking Behind the Green Curtain,” CATO Regulation, Fall 1996, 19(4), 26-34.
“The best is the enemy of the green,” The Economist, December 5, 2015, 75.

RESEARCH PAPERS DUE IN CLASS MONDAY, APRIL 29

Final take-home quiz available from Thursday, May 2 to Wednesday, May 8