

Seminar in Environmental and Natural Resource Economics

Class: MW 1-2:30pm in Seelye 304

Office Hours: Tues 3-4pm and Fri 1-2pm in my office (Seelye 305)

This course examines key issues in the economics of the environment and natural resources. Students must have successfully completed Intermediate Microeconomics (ECO 250) and Introduction to Statistics and Econometrics (ECO 220) or equivalent courses. A course covering environmental or other applied microeconomic policy issues would be helpful.

The course has two primary objectives. First, the course is designed to familiarize you with some of the current research in the field of environmental economics and to teach you to digest and critically evaluate original economic research articles in the field. Second, the course is designed to teach you to conduct your own economic research through the preparation of a major research paper.

Course Elements

Class Participation

Roughly 25% of your course grade will be based on your preparation for and active participation in class. You are expected to complete each week's readings before class and to come prepared to discuss the weeks' discussion questions (posted on Moodle). For some sessions, you may be asked to prepare written answers to the discussion questions, to complete written reviews of an article, or to complete a data analysis exercise.

Research Paper

Each student will complete a research paper on a topic of your choosing related to environmental and resource economics. The final paper should be 3500-4500 words (15-20 pages double-spaced). You will prepare a draft (10-15% of your grade), present your research to your classmates (5-10% of your grade), and submit a final version (roughly 40% of your course grade). The final paper should be 3500-4500 words (15-20 pages double-spaced) and include a bibliography. You should plan to come see me in office hours sometime during the first three weeks of the semester to discuss your ideas on paper topics. I recommend that your paper follow one of three models:

1. An analytical paper that uses economic theory to answer a specific question. If you choose this model, you will need to articulate a narrative economic model of some real world situation and use your model to analyze that situation. Your question can be explanatory (why is some particular phenomenon occurring?), predictive (what will happen as the result of some change?), or prescriptive (what should someone (often a policymaker) do in a particular situation?).
2. An empirical paper that uses statistical analysis to answer a specific question. If you choose this model, you will need to articulate a specific question, identify data that can be used to answer the question, analyze the data using appropriate statistical techniques, and present your conclusions.

3. A valuation study proposal that develops a specific study design to value a particular environmental amenity. If you choose this model, you will need to select a valuation method that is appropriate to the benefit you wish to estimate and develop all the details needed to implement the study, from survey design to data analysis. Depending on your specific question and approach, you may not need to actually implement the survey during the semester, although if you would like to do so, it is possible if you select your topic and start the process early.

There are a couple other paper approaches that you could consider including a benefit transfer study (where benefits estimates from one study and location are used to estimate benefits in a different region) or a cost-benefit analysis. If you are interested in adopting one of these approaches or have another idea, please come talk to me early in the semester so we can make sure that your idea is feasible and consistent with the assignment guidelines.

A brief pitch There are a number of opportunities to have your paper topic connect to campus or other local policy questions/concerns. For instance, you could use economic theory to recommend a specific policy that Smith should use to reduce its carbon footprint, develop a survey instrument to estimate the Smith community's willingness to pay for some amenity, look at some aspect of dining services policy, or any number of other ideas. If you decide to develop a survey, funding may be available from the Economics Department, CEEDS, and/or the Environmental Science & Policy program to implement your survey after the semester and this could lead to a special studies or honors project for any of you who will be here in the fall. If you are interested in pursuing a Smith or local project, let me know. Dano Weisbord, the Director of Campus Sustainability and Space Planning, and I are happy to set up a meeting with students interested in campus projects to discuss ideas and opportunities.

Drafts and Presentation of Research

During the last several weeks of class, we will meet to discuss your papers. We will discuss the details of the presentation schedule in our first class meeting. Your paper drafts will be due 2-4 days in advance of the day you present. Because the structure of these meetings requires everyone to have read your paper *before* your presentation, late drafts will be severely penalized.

Everyone is responsible for reading all the drafts and coming to class ready to discuss the paper and offer suggestions for improvements. Each paper will be assigned 2 discussion leaders (which means each student will serve as a discussion leader twice). The discussion leaders should plan in advance how to structure the discussion on the paper and will each provide a written 2-3 page review of the paper. Each student will also submit a 2-3 page review of one other paper and provide two written substantive suggestions for five remaining papers.

During these class sessions, the paper author will first deliver a 10 minute PowerPoint presentation that covers your question, your methodology, your data or your economic model, and your results and conclusions. The discussion leaders will then lead the class in a discussion of the paper for roughly 20 minutes. Your participation in reviewing and discussing your classmates' papers will count for roughly 15% of your course grade.

Course Policies

Email

I encourage you to email me at ssayre@smith.edu with questions. I will make every effort to respond to your emails within one business day (i.e. within 24 hours during the week and by the end of the day Monday for emails received over the weekend). I generally will not answer detailed conceptual questions in emails but will ask you to make an appointment to come by my office.

Technology in class

Please make sure that all mobile devices are silenced before class. If you have an emergency, quietly leave the classroom and take your call in the hallway. Laptop use in class tends to detract from class discussion because it places a barrier between seminar participants. Moreover, technology use can be distracting to fellow classmates, in part because the temptation to take “just a second” to check email or web updates is hard to resist. Finally, research demonstrates that students using a laptop to take notes typically retain less information than those taking notes by hand. If you feel that your learning will be hampered by not having access to your laptop for note-taking or other legitimate purposes, please speak to me. Otherwise, keep your laptop turned off and stowed away during class. If you have a tablet that lays flat and wish to use it to access readings electronically or take notes with a digital pen, please ensure that no alerts will appear on your device during seminar.

Late Work

It is your responsibility to come to class prepared for discussion and the details regarding late reading responses are provided above. Similarly, you must give your research presentation at your scheduled time; failure to do so will result in no credit for the presentation. For all other assignments, I will assess a penalty of 1/3 of a letter grade for each 24 hours or portion thereof late. Please note that by college policy I cannot accept papers after 5pm on Friday, May 6 unless you have been granted an extension by the Class Dean’s office.

Academic Honesty

As in any other course at Smith, you are required to adhere to the provisions of the Honor Code. I take academic honesty very seriously and will report any suspected violations of the Honor Code to the Honor Board.

Tentative Topics Schedule

The course outline below is tentative and may change based on your interest.

Week 1 (Jan 25-29): Introduction, externalities, common property and public goods

Week 2 (Feb 1-5): Price v quantity regulation

Week 3 (Feb 8-12): Valuation: revealed preference

Week 4 (Feb 15-19): Proposals, Rally Day

Week 5 (Feb 22-26): Valuation: stated preference

Week 6 (Feb 29-Mar 4): Environmental justice

Week 7 (Mar 7-11) Solid waste and recycling

SPRING BREAK

Week 8 (Mar 21-25): Impact of environmental policies

Week 9 (Mar 28-Apr 1): Unintended consequences

Week 10 (Apr 4-8): Economics of climate change

Week 11 (Apr 11-15): TBD

Weeks 12-13 (Apr 18-29): Presentations