AAE 643 FOUNDATIONS OF ENVIRONMENTAL AND RESOURCE ECONOMICS  
SPRING 2017

INSTRUCTOR:

Prof. Daniel J. Phaneuf (pronounced fa-neff)  
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Location:  Taylor Hall B30  
Lectures:  Tues/Thurs 2:30pm to 3:45pm  
Office hours:  11:30am to 12:30pm Tues/Thurs and by appointment

CAPSULE STATEMENT:

This course will provide a survey of historical topics and contemporary research questions in environmental and resource economics. Focus areas include foundational models of human/environment interaction, definition and evaluation of the suite of environmental policy instruments, measuring environmental costs and benefits, and examining natural resource use.

LEARNING OBJECTIVES:

This course is designed to provide graduate students with interest in environmental and resource economics with a broad overview of the field’s historical development, and its place in contemporary economics and policy. Students will come away with an appreciation for the breadth of topics that have been investigated, the analytical and applied tools used by environmental economists, and the field’s evolution from niche area into mainstream economics. Although the class will use quantitative methods, the emphasis is not on the mastery of technique. Instead, students will gain knowledge of the techniques that need to be mastered, in order to pursue research in the various topical areas.

PREREQUISITES:

Students should have familiarity with micro theory at the level of AAE 635 and applied econometrics at the level of AAE 636.

TEXTBOOK AND READINGS:

The main textbook will be


You can order the book from Amazon or directly from the CUP website (make sure you order the paperback version). If there are availability problems I will distribute PDFs of the early chapters.

I will augment the book with journal articles designed to illustrate the contemporary application of ideas covered in the text.

COURSE REQUIREMENTS

Your course grade will be based on your performance on one in-class exam, the final exam, several homework/reading summary assignments, a writing assignment, and participation in class. The following percentages will be used to determine your final mark:
Midterm Exam 25 percent  
Final Exam 25 percent  
Homework/reading assignments 20 percent  
Paper 20 percent  
Participation in class 10 percent  

The midterm exam will be sometime around week 9 of the semester. The final exam is scheduled for **Wed 10 May at 12:25 pm.** I may, however, move the exam into the last week of class.

Homework assignments will be a mixture of analytical exercises, empirical analysis, and short reviews of current literature.

For the paper you will prepare a 10-15 page literature critique on a contemporary empirical topic that we will agree on together. A literature critique is more than a literature review in that it should go beyond simply describing what has been written on a topic. I will give you more specific guidance during the semester, but here are a few examples of things your paper should cover:

- Historical motivation for the topic
- Identification of key legacy and recent papers
- Summary of theoretical and empirical knowledge
- Data sources and methods used in the area
- Discussion of limitations in the current literature
- Suggestions for research that would fill existing knowledge gaps.

If you are taking another course that also requires a paper, I encourage you to select a topic that can be used for both assignments. I will set up a meeting with each of your during the first half of the semester to discuss ideas for topics. A first draft of your paper will be due by week 14 of the semester, with the final draft due the last day of class.

**GRADING**

I will determine your grades based on the following percentages, which will arise from the numerical scores I assign to each of the components:

- \(\geq 93\%\) A
- \(< 93\% \& \geq 88\%\) AB
- \(< 88\% \& \geq 83\%\) B
- \(< 83\% \& \geq 78\%\) BC
- \(< 78\% \& \geq 70\%\) C
- \(< 70\% \& \geq 60\%\) D
- \(< 59\%\) F
PRELIMINARY TOPICS AND TIME ALLOCATIONS

The following describes the preliminary topic list and my estimates on the amount of time we will spend. All that follows should be considered preliminary – I will make adjustments as the semester progresses. Most of the journal articles are recent empirical contributions that we will discuss after covering background material from the textbook.

**Economics and the Environment (2 weeks)**

Phaneuf and Requate, Ch. 1, 2, 3


**Environmental Policy (5 weeks)**

Phaneuf and Requate, Ch. 4, 5, 7, 8, 9


**International Topics and Climate (2 weeks)**

Phaneuf and Requate, Ch. 12, 21


**Non-Market Valuation (4 weeks)**

Phaneuf and Requate, Ch. 14-19


**Health and the Environment (2 weeks)**

Phaneuf and Requate, Ch. 20


**Energy and the Environment; other Empirical Questions (time allowing)**