ECON 330, Environmental and Natural Resource Economics
Professor Hamilton, Fall 2022

Instructor Info

Email: thamilt2@richmond.edu
Office Hours: Tuesday 1:30 – 3:30 (BUS 250)
Thursday1:30 – 3:30 (via Zoom)

https://urichmond.zoom.us/j/5590015163

Blackboard

Blackboard will be used extensively to post course documents: https://blackboard.richmond.edu/

Reading

There is no text book for this course. However, there will be readings assigned throughout the semester that will come from a variety of sources. These will all be posted in pdf format on Blackboard.

Course Objectives

This course offers a rigorous treatment of environmental and resource issues using a framework of economic analysis. We will examine problems that arise related to environmental management, including air pollution, climate change, land degradation, resource extraction, and fisheries management, as well as solutions to these problems, including environmental taxes and permit markets. The objective is to generate an understanding of the theoretical models and economic concepts behind environmental issues, as well as the mechanisms behind proposed solutions.

This course will have a heavy focus on technical analysis based in calculus. While the mathematical skills are not an end in themselves, they are imperative to understanding complicated concepts and for deriving important results.

It is expected that you will spend approximately 10-14 hours each week on this course, including attending lectures and assignments outside of the classroom.

Course Expectations

See the document *Prereq_Content.pdf* for assumed content understanding.

Students are expected to take an active part in this course, including being prepared to discuss text book material in class and take part in class exercises. This requires keeping up with assigned reading, homework, and practice problems. The building-block nature of this course requires consistent study habits. For that reason I expect you to attend all lectures, ON TIME, and to have read the text as-signment before class. If you are having trouble with material covered in previous classes, please do not hesitate to come to me for help.

This course will focus on technical theory, economic intuition, and policy application. All are equally important and complement each other. You must be ready to think about abstract concepts, pay attention to nuanced technical details, and apply what you learn in an original way.

You are expected to attend all lectures, on time, and to have properly prepared for class. I will call on you to answer questions. I expect nothing more and nothing less than your best effort.

Grading

Grades for this course will be determined through a combination of homework, a dataset project, class participation, and exams. Homework will be assigned consistently throughout the semester. R Assignments are additional homework assignments for which you will submit your code. The dataset project requires you to construct your own dataset and conduct an econometric analysis in R. Components of the course grade are weighted as follows:

17%	Homework
18%	Project: (Paper =12%, Presentation =6%)
5%	Class Participation
60%	Equally divided between THREE (3) Exams

Homework

Homework will be assigned regularly throughout the semester. Assignments will be posted on Blackboard. All homework should be completed individually. Homework should be submitted as a hard copy. Final numerical answers should be obvious and all discussion should be in complete sentences.

You must show all work in a neat, legible, and presentable way.

Paper

See the document *Project_Assignment.pdf* for details.

Presentation

See the document *Project_Assignment.pdf* for details.

Honor Policy

Students are expected to abide by the University of Richmond's Honor Code:

https://studentdevelopment.richmond.edu/student-handbook/honor/statutes.pdf

Course Outline and Reading:

- All readings have accompanying discussion questions in *Reading_Questions.pdf*.

Course Outline (tentative)

Topic	**Readings**
Review and Intro	Notes 01 Pearce (2002) Fullerton and Stavins (1998)
Pollution	Notes 03 Hartman et al. (1997) Auffhammer (2018)
Policies	Notes 04 Parry and Small (2004) Schmalensee and Stavins (2013)
Private Information and Uncertainty	Adar and Griffin (1976)
Valuation	Morse-Jones et al. (2012) Timmins and Gamper (2013) Kling et al. (2012)
Nonrenewable Resource Extraction	Pindyck (1978)
Renewable Resources	…
Renewable Common Resources	…
Climate Change	Hsiang and Kopp (2018) Metcalf (2009)
Integrated Assessment Models	Tsigaris and Wood (2016)

Tentative exam dates are listed below. Any changes will be announced at least 2 classes ahead of time. Only serious reasons will be considered for a makeup examination and I will only consider allowing a makeup for planned University activities if I am notified in advance. I will not accept any homework after the due date without prior approval. Exams and homework that are missed without approval will result in a score of zero.

Exam Dates:

Exam I: Wednesday, February 16
Exam II: Monday, March 28

Final Exam

Wednesday, April 27, 2:00pm-5:00pm