

## **Econ 3466: Environmental Economics** **Spring 2023**

**Lecture Instructor:** Ling Huang  
**Email:** [ling.huang@uconn.edu](mailto:ling.huang@uconn.edu)  
**Lecture location:** MCHU 110  
**Lecture time:** TuTh 11:00am-12:15pm  
**Office Hours:** Thursdays 3:10pm-4:10pm or by appointment  
**Office:** Oak 329  
**Virtual Office:**  
<https://uconn-cmr.webex.com/j.php?MTID=m45a5a6d7e4b3916ff2a924569a8c7de4>

### **Course Description:**

The purpose of this course is to introduce you to a wide range of environmental issues and analyze them from an economic perspective. The course is divided into two parts. The first part will cover market failure, cost benefit analyses, air and water pollution, environmental valuation methods and the use of regulation and market-based mechanisms to control pollution. The second part of the course will focus on issues related to natural resources exploitation and problems on environmental justice. After completing this course, you are expected to be able to understand the basic environmental policy instruments and use economic tools to analyze real-world environmental problems and policies.

### **Prerequisites:**

Course prerequisites include both ECON 2201 and 2202. You need to have a strong micro-background to finish economic analysis projects.

### **Text Book and Readings:**

- [1] Tom Tietenberg and Lynne Lewis, *Environmental and Natural Resource Economics* (11<sup>th</sup> Edition), Pearson, Addison-Wesley, 2018.
- [2] Robert N. Stavins (Editor). *Economics of the Environment: Selected Readings*. (7<sup>th</sup> Edition), Harvard University Press, 2019.

I will also post additional materials to the HuskyCT. Please check your HuskyCT regularly.

### **Projects, Exams and Grading**

As shown in the more detailed course outline, there will be two in-class exams and one comprehensive final exam. I will provide exercise problems for you to prepare for the exam. You can study in groups on the exercises, but keep in mind that your own *unassisted* exam performance will determine your grade with the highest weight. There will be an economic analysis project (see guideline at the end of this syllabus). The weights of your grade are allocated as the following:

Participation	10%
First exam	15%
Second exam	20%
Final exam	30%
Project	25%

### **Rules on Make-up exam or project**

You must notify me in advance that you need to reschedule your exam. You must provide written evidence for rescheduling (for example, doctor's notice, travel letter from athlete office etc.). For fairness, if without written evidence, rescheduling will apply a 15% discount for the first time, 20% for the second time, and no permission for more.

### **Questions and Appointments**

If you have any questions, either join my office hours, or contact me by email ([ling.huang@uconn.edu](mailto:ling.huang@uconn.edu)) to arrange an appointment.

**Course Outline (subject to change)**

<b><u>Date</u></b>	<b><u>Topics</u></b>
<b><u>Week 1:</u></b>	Week of Jan 17, 2023 Syllabus Microeconomic review
<b><u>Week 2:</u></b>	Week of Jan. 23, 2023 Externalities and market failure Cost-benefit analysis
<b><u>Week 3:</u></b>	Week of Jan. 30, 2023 Environmental valuation: Revealed Preference
<b><u>Week 4:</u></b>	Week of Feb. 6, 2023 Environmental valuation: Stated Preference In-class Exercise (Feb. 9)
<b><u>Week 5:</u></b>	Week of Feb. 13, 2023 <b>Exam 1 (Tuesday Feb. 14, 2023)</b> Cost estimation
<b><u>Week 6:</u></b>	Week of Feb. 20, 2023 Discounting
<b><u>Week 7:</u></b>	Week of Feb. 27, 2023 Cost-effectiveness
<b><u>Week 8:</u></b>	Week of Mar. 6, 2023 Policy instruments for pollution control
<b><u>Week 9:</u></b>	Week of Mar. 13, 2023 Spring recess

- Week 10:** Week of Mar. 20, 2023  
Renewable resources  
In-class Exercise (Mar. 23)
- Week 11:** Week of Mar. 27, 2023  
**Exam 2 (Tuesday Mar. 28, 2023)**  
Non-renewable resources
- Week 12:** Week of Apr. 3, 2023  
Oil and climate change
- Week 13:** Week of Apr. 10, 2023  
Project Presentation
- Week 14:** Week of Apr. 17, 2023  
Project Presentation
- Week 15:** Week of Apr. 24, 2023  
In-class Exercise (Apr. 25)  
Reading and preparation for final
- Week 16:** Week of May 1, 2023  
**COMPREHENSIVE FINAL EXAM (Time: TBA)**

# Guidelines for Economic Analysis Project

Due: April 8<sup>th</sup>

This project includes 1) a brief report analyzing the economics of the policy question, and 2) project presentation at the end of the semester.

Imagine now you are a consulting analyst to evaluate the environmental policies. For the topic, you can either select one of the following policies or decide your own. Keep in mind that the purpose of the project is to provide the ECONOMIC evaluation of environmental policies using the tools we learned from the course. The report should be no more than 5 double spaced pages. You need to have an abstract (around 100 words) that lays out your key findings.

The potential topics include:

1. Since 2003, EPA launched the NO<sub>x</sub> Budget Trading Program that is similar in spirit to the successful sulfur dioxide emissions trading program. Analyze the economics of this program.

<http://www.epa.gov/airmarkets/programs/nox/index.html>

2. Since 2005, Bering Sea and Aleutian Islands (BSAI) crab fisheries have been managed under the Crab Rationalization Program with a core component of Individual fishing quota system. Evaluate the success of the rationalization program in restoring economic efficiency to Alaskan crab fisheries.

<http://www.fakr.noaa.gov/sustainablefisheries/crab/crfaq.htm>

3. Analyze the economics of the Bush administration proposal to allow drilling in the Alaskan National Wildlife Refuge (ANWR).

<https://www.politico.com/blogs/politico-now/2008/07/bush-lifts-executive-ban-on-offshore-drilling-010260>

4. Starting from February 2003, London began charging a 10 £ congestion toll for most motor vehicles traveling in central London. Analyze the economics of this congestion toll. You may want to compare the economic properties of this toll to other alternative congestion policies.

5. Follow the example in the class to design a contingent valuation.

You are expected to present the project individually. The presentation can include, but not restricted to, the main objective of your project, the model you use, and the main findings. You can and should use slides containing subsections, bullets, and other tools to make the key points immediately clear to your audience.