Overview:
This course provides an introduction to the economics of environmental policy. We begin by examining market failures from externalities and public goods. We then discuss public policy options to correct these failures, and develop tools to assess the costs and benefits of each approach. With this framework in place, the remainder of the course is spent evaluating specific environmental policies past and present. In addition to discussing local air pollution, congestion and conservation, we will spend a considerable amount of time discussing global climate change.

Prerequisites:
Principles of Microeconomics (ECON1131) is a prerequisite for this course. I will assume that you remember all important concepts from ECON1131, including supply and demand, consumer and producer surplus, opportunity cost, analysis of firms in competitive markets, etc. Math skills including summation, algebra and graphing will also be necessary. If you are feeling rusty on any of these concepts, please take the time to review them during the first week of classes.

Everyone must fill out a survey at http://goo.gl/forms/gXbBpG5vB7

Textbook:
The Economics of the Environment (1st Edition), by Peter Berck and Gloria Helfand

Optional texts:
Markets and the Environment (2nd edition), by Nathaniel Keohane and Sheila Olmstead

A more concise presentation of many of the topics we will cover. Useful to reinforce major points and as a cheap reference guide on the subject.


Contains many of the assigned readings for the class, as well as many other good articles for people interested in learning more about a particular topic.

Readings:
Readings for each class will be posted on Canvas. All readings are required unless otherwise stated. Exams will include at least one question from the non-textbook readings.
Key dates:
9/17 – problem set 1 due
10/1 – problem set 2 due
10/15 – problem set 3 due
10/20 – midterm
10/22 – policy memo assigned
10/29 – problem set 4 due
11/12 – problem set 5 due
12/1 – problem set 6 due
12/8 – memo due
12/12 – final exam (9 am)

Grading:
Problem sets – 10 percent
- There will be 6 problem sets. I will drop your lowest score.
- All problem sets are due at the start of class. Late problem sets will not be accepted.
- You are allowed to work in groups, but each person must hand in their own problem set.
- The problem sets will focus mainly on analytical problems. The exam problems will be similar, and this is your best way to learn these tools. Answers will be made available after the problem sets are due. It is up to you to make sure you understand the solutions, and to come to my office hours if they are unclear.

Policy memo – 15 percent
All students will be required to submit a short (2 page) memo on an environmental policy problem of their choosing. Additional information on this assignment will be given out after the midterm on 10/22. The memos will be due at the start of the final lecture on 12/8. Late memos will not be accepted.

Midterm exam – 30 percent

Final exam – 45 percent
Makeup exams will not be allowed. If you miss the midterm exam I will increase the weight of the final exam.

Participation:
While the course will be primarily lecture based, some classes will involve discussion of readings or case studies. Being prepared and engaged on those days can help you on the margin when final grades are calculated.

Grade distribution:
My expectation is that the distribution of grades in this class will be similar to other economics electives - i.e. the top 33% of students receive an A or A- and the average for the class will be a B/B+. If necessary, I will curve grades upward at the end of the semester to achieve this distribution. However, if the class does better than expected I will not curve grades downward.
Important policies

Regrade policy:
Answer keys for both exams will be provided. Students should go over them carefully. Anyone who feels he or she is entitled to more points than was awarded should type up a clear description of where they were incorrectly penalized and submit this to me, along with their exam, within two weeks of the exams being handed back. At that point, I will regrade the entire exam, and issue an updated exam grade (which could be higher or lower).

Attendance policy:
Attendance is mandatory. 3 absences will be allowed (for any reason). Beyond that, I will drop 1 point off your final grade for each absence. If you do not think you will be able to attend lecture, do not take this course.

Seating policy:
To facilitate attendance taking and classroom discussion, students will be required to sit in the same seats every class. Seats will be set on the third class (September 8).

Laptop policy: The use of laptops will not be allowed in class. If you need to use a laptop for medical reasons, please come speak to me after class.

Academic integrity:
Students are advised to carefully review and abide by the university’s policies on academic integrity. Any instances of cheating or plagiarism will be reported to the Dean’s office without exception.

Lecture slides: will be posted on the course website prior to each class. I strongly suggest you print them out and take notes on them during class.

These slides draw extensively from courses taught by Hunt Allcott and, especially, Rob Stavins taught at MIT and Harvard respectively. Support from these two is gratefully acknowledged.
Course Outline*

Part 1 – Theory
1. Intro - Overview of environmental economics
2. Why do we need environmental policy? - Review of markets and market failure
3. Social choice and benefit-cost analysis - An economic approach to policy evaluation
4. Benefits of environmental policy – Theory and measurement
5. Costs of environmental policy – Theory and measurement
6. Designing Policy - Solutions to market failure

Midterm

Part 2 – Policy applications
7. Acid rain – What did we learn from the first cap-and-trade program?
8. Particulate matter – Local air pollution policy in 2015
9. Global climate change
   9.1. Overview of the problem
   9.2. Global cooperation options
   9.3. Mitigation
   9.4. Adaptation
10. Energy efficiency – behavioral economics and environmental policy
11. Innovation – push vs pull
12. Is trade bad for the environment?
13. Pollution problems in developing countries
14. Conservation – should we be doing more?

Final Exam

* This outline is tentative. Topics may be dropped or added during the semester depending on how the class is going.