

## ENVIRONMENTAL ECONOMICS

Econ 4545

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Fall 2014, August 21, 2015

### Course Description

Environmental Economics (Econ 4545) considers the efficient and equitable use of society's environmental resources, which like all resources are scarce. Environmental resources include the atmosphere, water, undeveloped land, wilderness, many parks (but not Disneyland), wildlife, genetic diversity, and ecological systems.

The environment is where we get the stuff that sustains us and determines our quality of life, the environment is also where we must dump our waste.

Environmental economics accepts, without much discussion, efficiency and equity as the goals for environmental policy. Note that many others, some environmentalists, politicians, and environmental studies majors (there are always tradeoffs).

Externalities and common-property work in this area. Recently I have been working on the BP spill in the Gulf of Mexico.

Use of environmental resources will be considered from four perspectives: the market allocation (how the market would allocate environmental resources if the market were left to its own devices (no government involvement)), efficient allocations, equitable allocations (environmental justice and government attempts some successful, some not), and more efficient and more equitable allocations of our scarce resources.

Courses in environmental economics and courses in natural resource economics both consider natural resources but differ in that natural resource courses have historically dealt with the intertemporal utilization (how much to use now and how much to save for the future) of conventional renewable and nonrenewable natural resources such as energy, minerals, and fish, whereas environmental courses have considered pollution and other environmental issues, historically

from a static perspective. This historical distinction is blurring.

Before we begin, I want to make a few comments about what economics is not. Economics is not about making money or how to run a firm. Economics is the study of the allocation of society's scarce resources. Economics per se is not pro

the form of energy but, with the exception of nuclear reactions, no matter or energy is created or destroyed. The word consumption is a misnomer when you eat a Big Mac, nothing is destroyed. Materials balance is of critical importance but it is not stressed in your other economics courses.

### Details

My hope is that the end of the semester you conclude the course was difficult but worth the

your understanding of the review questions

that the exams and assignments add to 100% of your grade, so any credit for class participation is on top of that. If you are in class almost all of the time (I will determine what that means) will add 5% to your course grade. In determining whether you get any participation points, why you were absent does not matter.

If you do better on the final than your aggregate midterm, the final will count 60% of your course grade and the aggregate midterm score will be will count 40% of your course grade.

If you get an A on the first midterm, you can make a private arrangement with me to do a course paper/project. How much the paper will count will depend on our arrangement. If you are doing well in the course and like to write and do research, this is strongly highly recommend

Some papers by past student of Econ 4545 and Econ 4535 can be found on the web page for Econ 4535 (<http://www.colorado.edu/Economics/morey/4535/4535home.html>) link forward to including your excellent paper or web project on the page.

If you are interested in writing a paper see <http://www.colorado.edu/economics/morey/4545/4545assg.html>

I grade on the following scale:

90% = A  
80% = B  
70% = C  
60% = D  
59% = F

In past semesters, some students, not many, have earned a D or an F, and have gotten that grade. I hate doing this, but will give a D or F if it is earned.

I try to grade on the basis of standards rather than on the basis of a curve. Even now, can get an A. That said, the Department has grading guidelines, I am supposed to aim for a course average grade of around 76% (middle to high C, so would get in trouble if every semester I gave mostly A's

Office hours these are posted on the home page for the course. If you make it to the office hours, catch me after class to schedule a time. My office is Econ 122. Please feel free to contact me by email [Edward.Morey@Colorado.edu](mailto:Edward.Morey@Colorado.edu) about setting up an appointment.



## Readings:

There is no course text book. If you want a reference text, I recommend Tietenberg's Environmental and Natural Resource Economics. You could check it out by borrowing, for a day or two, one of my copies. If you are so inclined, buy a used copy online or directly from the publisher. Rather than consider Tietenberg a standard undergraduate text on the topic of environmental economics.

If you bring me that book, or some other undergraduate text in environmental economics, I will try and tell you which chapters are relevant to the topics and issues we are discussing. Don't consider Tietenberg a substitute for either the course readings or class time. It is simply another way to study environmental economics.

Other possible resources are the course web pages for other environmental courses for undergraduate economics majors. This syllabus should include links to a few such courses, but for now does not. Maybe you could help me find some. Of course, I am responsible for the mistakes of other professors.

Your required readings consist of journal articles, magazine articles and newspaper articles. They vary in length from a few newspaper columns to two-page journal articles. Some of these articles will be discussed in class.

I will often draw review questions from these articles. You are responsible for the material in all of the articles for each section of the outline that is covered in class, even though not all of the readings will be explicitly discussed in class.

Many of these articles were suggested by students. I encourage your comments and feedback on these readings. Bring me articles (preferably email them to me as attachments in .pdf or .html) you feel would be good class readings, explaining why would be a good class reading. Also tell me which of the current readings have the greatest value and which have the least value.

The New York Times is a very good source of articles about the environment, particularly the Science section on Tuesdays. The New York Times is on the web ([www.nytimes.com](http://www.nytimes.com)). You can search by topic for articles previously published in the New York Times

I am in the process of trying to get all of the class readings onto the web page. The articles on the course web page are in either .pdf or .html format. Note that some of these files are large. See the course web page for details.

I will be revising and updating the list of articles during the semester.

Note that much of the material I will present in class does not appear in any of the readings.

Applications/topics Some of the applications/issues/topics we are likely to consider include extinction and animal preservation, pollution permits, parks and wilderness areas, valuation (travel-cost, contingent valuation, and choice experiments), global warming, conservation, mobile-source pollution (from cars and trucks), and acid deposition.

Class format: View the readings and my lectures as complements rather than substitutes.

A lot of the basic material that you will be responsible for will be presented in lecture and is material that is not explicitly in the readings. Class time will be devoted to lectures, problem solving and discussion. It is important that you do the appropriate readings before each lecture. Some class time will be devoted to working on the review questions. Prepare for these review sessions by answering the questions to the best of your ability. I will ask a lot of questions and will sometimes offer extra credit for correct answers. Expect to be called on.