University of Colorado
Department of Economics

ENVIRONMENTAL ECONOMICS--EC4545-001

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Spring 2019, ECON 117

Course Content

The study of environmental economics is interesting, thought-provoking, and controversial. This is both a strength and a weakness; the strength is that the inherently interesting nature of the subject matter results in greater student interest and involvement than might be the case for many of the other fields in economics. The weakness, however, is that the emotionally-charged nature of the topic tends to lead to fuzzy thinking--indeed, there is ample evidence that this problem is not unique to the academic setting; many of the worst examples of government spending and legislation have stemmed from perceptions of a "crisis," whether it is an energy crisis, a defense or terrorist crisis, a health-care crisis, or whatever.

The economist views environmental problems, like all problems, as being "resource-allocation problems." Another way to express this is that economists deal with **choices**. If a problem is not viewed as being a matter of choice, then it is a non-economic problem. To make a simple analogy, suppose you believe (for religious or other moral reasons) that it is wrong to steal, cheat or kill--for you this is not "a matter of choice;" it is not "something to decide upon." Economists also have various beliefs, but in their role as an economist, such issues are viewed as choices, something to decide about on the basis of benefits and costs. Depending on our individual beliefs, the costs may be high relative to benefits, or they may be low. If, however, costs are higher than benefits, and we abstain from stealing or cheating or killing, we are doing so-- from the economist's perspective--as a matter of choice (informed by our moral and other beliefs). But, while the observed behavior might look similar, this is quite different from arguing that there is no choice for such decisions. Some of you may recycle as much as you can because you believe it is the "right" thing to do, independently of personal costs and benefits; others of you hardly recycle at all feeling that the costs are greater than the benefits.

We begin with some basic economic and philosophical concepts as they relate to the environment. We then turn to an in-depth treatment of how the economic system interacts with the environmental system. The analysis will

build from a fairly simple model, adding layers of complexity until its relevance to environmental policy-making becomes clear.

Text:

Environmental Economics: An Integrated Approach. Boca Raton/London/New York: CRC Press, Taylor & Francis Group, 2014, 264 pp.
  All notes are not created equal--if you must miss class, get somebody's notes who is a good note-taker. I will make PowerPoints available, but they too are a poor substitute for class discussion.

Administrative Matters:

    There will be two midterms (30% each) and the final (40%). The test format is likely to be multiple choice--but this is dependent on how large the class is. If that proves to be the case, there are sample exams available at the links associated with the EC3545 course that will give you a sense of the nature of these tests. I will calculate your course grade as the largest number arising from the following alternative calculated scores:

"Score 1": .3(1st Mid Grade) + .3(2nd Mid Grade) + .4(Final Grade)

"Score 2": .4(2nd Mid Grade) + .6(Final Grade)

"Score 3": .4(1st Mid Grade) + .6(Final Grade)

That is, you can mess up either midterm (or miss one--there are **no makeups** for either midterm) without harming your grade--however, the final is fully comprehensive, so you will be responsible for the information from both midterms on that exam. Moreover, I will add enough points to each exam to have the average grade be a 78 (on the border of C+/B-)...that is, if the raw mean is, say, 72, then 6 points will be added to everyone's exam--if you got a 96 raw grade, that grade becomes 102. After that adjustment, 90-100 will be A, 80-90 B, 70-80 C, 60-70 D, and below 60 F, with the usual pluses and minuses if you are within two points of the various cutoffs.
    I will let the top 5% or so of students, based on the first two midterms, out of the final, an incentive to really learn the material--moreover this is good, as well, for those who do not get out of the final because its average will be lower, hence more points get added. Allowing some students to get out of the final results in the midterms coming later in the semester than is usual, so that more of the material is tested upon. The **Comprehensive Final Exam is Tuesday May 7th, 4:30pm to 7:00pm in our classroom.** Note that if you have three

exams in a day, it is the third exam that university policy allows you to reschedule, so this is likely to be a problem for this course this semester. The Economics Department has recently instituted some grade changes that have made it *extremely* difficult to give incompletes. The grade of IW has been completely eliminated, and the grade of IF is only given when circumstances completely beyond student control result in inability to complete the course requirements. Such cases must be brought to my attention immediately, otherwise a grade of F will be assigned.

Office: Economics 223 (Northwest corner, 2nd floor of the Economics Bldg) Hours: MWF 11:00am-12:00 noon and MWF 3:00-3:30 pm (also after class and by appointment at many other hours, if there are schedule conflicts). Phone: (303) 492-7021 (message machine-but I am not usually in the office on a daily basis). The best, recommended, approach to contact me: **e-mail: philip.graves@colorado.edu** or **philipegraves@gmail.com (e-mail d*efinitely preferred route of communication--I'm online daily usually 24/7 and at odd hours*).**

Note: 1) Students with disabilities who qualify for academic accommodations must provide a letter from Disability Services (DS) and discuss specific needs with me, preferably during the first two weeks of class. DS determines accommodations based on documented disabilities (303-492-8671, Willard 322, www.colorado.edu/sacs/disabilityservices). Campus policies (including those involving the new student honor code, plagiarism, classroom behavior policies, and the like) can be viewed at: http://www.colorado.edu/policies/index.html. Direct any questions you have about these policies to me.
   2)Campus policy regarding religious observances requires that faculty make every effort to reasonably and fairly deal with all students who, because of religious obligations, have conflicts with scheduled exams, assignments or required attendance. In this class, it is unlikely that this will be a problem, since I do not take attendance in any event. Should we be voting for a test date that conflicts with religious observances, point this out to me and that date will be eliminated from consideration. See full details athttp://www.colorado.edu/policies/fac_relig.html
   3)Students and faculty each have responsibility for maintaining an appropriate learning environment. Students who fail to adhere to such behavioral standards may be subject to discipline. Faculty have the professional responsibility to treat all students with understanding, dignity and respect, to guide classroom discussion and to set reasonable limits on

the manner in which they and their students express opinions. Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with differences of race, culture, religion, politics, sexual orientation, gender variance, and nationalities. Class rosters are provided to the instructor with the student's legal name. I will gladly honor your request to address you by an alternate name or gender pronoun. Please advise me of this preference early inthe semester so that I may make appropriate changes to my records. See polices at:http://www.colorado.edu/policies/classbehavior.html   and at http://www.colorado.edu/studentaffairs/judicialaffairs/code.html#student_code

    4)All students of the University of Colorado at Boulder are responsible for knowing and adhering to the academic integrity policy of this institution. Violations of this policy may include: cheating, plagiarism, aid of academic dishonesty, fabrication, lying, bribery, and threatening behavior. All incidents of academic misconduct shall be reported to the Honor Code Council (honor@colorado.edu; 303-725-2273). Students who are found to be in violation of the academic integrity policy will be subject to both academic sanctions from the faculty member and non-academic sanctions (including but not limited to university probation, suspension, or expulsion). Other information on theHonor Code can be found at http://www.colorado.edu/policies/honor.html and at http://www.colorado.edu/academics/honorcode/
The course will follow the book and class lectures, with tests organized as follows:

Midterm #1 will cover introductory material involving why economists like supply and demand and its extension, benefit-cost analysis. It will also cover externalities, public goods, and the Coase Theorem as well as the economic/environmental model that we will discuss, in possibly excruciating detail, in class. The specific date of the first exam will be voted on in class among a few possible dates, hopefully to get the "socially optimal" test date--the date is, however, a "public good" and voting does not always produce the best date, as we shall see. The first exam will be, however, approximately mid-way through the semester.

Midterm #2 will cover the (many) flaws in the approaches actually taken to implementing benefit-cost analysis, strongly suggesting that benefit-cost analysis is heavily biased against the environment. It will also cover the extensions to the economic/environmental model that are necessary to

allow it to inform "real world" environmental policy. The second exam date will also be voted upon, though it will come quite late in the semester (usually the last "legal" week for exams, which is the second to last week of the semester).

AGAIN: Comprehensive Final ExamComprehensive Final Exam is Tuesday May 7th, 4:30pm to 7:00pm in our classroom--Good Luck!