

<b>Basic Course Information</b>	
Contact:	Office: 309 Andersen Hall; Phone: (847) 491-8481, <a href="mailto:mwitte@northwestern.edu">mwitte@northwestern.edu</a> .
Class meets:	Annenberg G15, Mondays and Wednesdays from 2:00-3:20, occasional TA sections there 2:00 Fridays.
Office Hours:	Office Hours for Econ 309 and 370: Tuesdays 11-12:30, 2:00-3:30, and Wednesdays 3:30-5:00, in Andersen 309. I am also available other times by appointment. If those hours don't work for you, please ask me for an appointment and we'll find a time to meet. The TA is Jianjian Jin, ( <a href="mailto:JianjianJin2011@u.northwestern.edu">JianjianJin2011@u.northwestern.edu</a> ). His office hours will be Thursdays 4:00-6:PM in Andersen 328 (right by the elevators).
Text:	<i>Environmental &amp; Natural Resource Economics: A Contemporary Approach</i> , 2 <sup>nd</sup> ed. Jonathan M. Harris. 2006. Houghton Mifflin. ISBN 0-618-49633-5 Web notes and readings will be posted at the courses page for this class: <a href="http://courses.northwestern.edu/">courses.northwestern.edu/</a>

Class Date	Intended Lecture Topics and Other Important Info	Harris chapters covering material relating to this day's lecture (Other required readings will be posted)
Wed. Sept. 24	Intro, History, Van Thünen (No TA section this week)	H1,2
Mon. Sept. 29	Externalities	H3,
Wed. Oct. 1	Common Property, Fisheries	H4,14
Mon. Oct. 6	CBA, Contingent Valuation, Regret	H6
Wed. Oct. 8	Resource Allocation over Time, Hotelling	H5 ( <b>PN deadline Friday</b> )
Mon. Oct. 13	Cost-Benefit Analysis, Contingent Valuation, Regret	H6, Articles by Portney, Diamond & Hausman
Wed. Oct. 15	Pollution Control	H16, p. 390
Mon. Oct. 20	Pollution Control - Uncertainty	Weitzman
Wed. Oct. 22	Population, Food	H10,11
Mon. Oct. 27	Sustainability, Irreversibility, National Income, <i>Collapse</i>	H7, 8, Jared Diamond, Dasgupta, Page
Wed. Oct. 29	<b>Midterm</b>	<b>(Drop deadline Friday)</b>
Mon. Nov. 3	Non-Renewable Resources, Recycling	H12
Wed. Nov. 5	Energy	H13, p. 397
Mon. Nov. 10	Should we drill in ANWR?	ANWR readings
Wed. Nov. 12	Managing Renewable Resources, Endangered Species	H15
Mon. Nov. 17	Climate Change	H18, Nordhaus versus Dyson
Wed. Nov. 19	Stern Review on the Economics of Climate Change	Stern Review discussion
Mon. Nov. 24	Environment & International Trade	H19
Wed. Nov. 26	Conclusion	
<b>Wed. Dec. 10</b>	<b>Cumulative Final Exam, 9:AM-11:AM (45% of class grade)</b>	

Grading	Share of Class Grade
Midterm	35%
Final exam	45%
Problem sets (total)	10%
Empirical Exercise	10%

The following are questions that many of you will have about the class.

Q: What is the first assignment?

A: Please e-mail to me the following:

- 1) Your name and any preferred nickname.
- 2) Your year in school and major(s).
- 3) A list of the economics classes you've taken and the professors who taught them. Also list the math classes you've taken. Please mark with an "\*" any of these economics or math classes in which you're currently enrolled. If you can't remember, don't worry about it.
- 4) What do you want to do as a career? If you're a senior, what are your plans for next year?
- 5) Please write something interesting about yourself. Possibilities include your (condensed) autobiography, your experience working in government and fields relating to Environmental Econ, or why you're taking the class. This will hopefully serve as a mnemonic for me.

Q: I am not now nor have I ever taken the prerequisites. Am I in trouble in here?

A: Probably, this class uses the tools of Econ 310-1 a lot, 281 and 310-2 some as well.

Q: What more can you tell me about the empirical exercise?

A: We constantly hear about projected environmental effects, but are they credible? Can we make an informed opinion on our own? You will have to find interesting question relating to environmental or natural resource economics, access some data about it, and provide empirical support for your analysis of the situation. This could be projecting the rise in ocean levels, electricity uses in the US or India, CO<sub>2</sub> emissions from China, water use in Arizona, oil extraction from shale, hybrid car use, spread of malaria, prices of aluminum, etc. You will have to get your project approved by me before you start and you will need to post on Blackboard a significant part of your data by Friday, October 31<sup>st</sup>. Your final submission (about three pages of writing) must be posted to Blackboard by Wednesday, November 26<sup>th</sup>. Of course your submission should be well written and have appropriate references. Your grade will be determined by how interesting your question is, and how well you answer it. It helps to use tools from class and econometric analysis.

Q: What if I want to write a more in-depth paper?

A: That would be great. I would hope to see a quality piece of work running about 15 pages. It should combine a model with examples from the real world. Applying your econometric knowledge from 281 would be a real plus and/or so would building some sort of Econ 310-1 based model. I would like to be consulted at each stage of the process. A good paper could be expected to have a strongly positive effect on your grade, a weak one won't affect your grade in any fashion whatsoever.

Q: Can we work on the problem sets in groups?

A: Sure, in groups up to four, and you should hand in only one copy with all your names on it.

Q: I have a very active social life. Is it OK if my cell phone rings during class?

A: Sure, that would be OK, even a good thing, although answering phones in class is not acceptable. However, I want to make my policy on this clear. Since a loud phone disrupts class attention for approximately a minute (that is, creates a negative externality on your fellow students), and since each student is paying about \$2 per minute of lecture, if your cell phone sounds during class, you will be creating a negative externality of approximately \$130. So, if your cell phone interrupts class to a degree I find significant, you will lose all points from your problem sets until you make sufficient restitution to the class in the form of cookies or the like. I'm not joking; don't let this happen.

Q: What happens if I fall suddenly ill and am unable to make it to a test?

A: If you do not reach me or leave a message on my e-mail ([mwitte@northwestern.edu](mailto:mwitte@northwestern.edu)) or my office answering machine (847-491-8481), your misfortune will be doubled. You will get a zero on the test for a grade of F that cannot be made up. Don't make this mistake. Any problem that causes you to miss a test must be carefully documented by an independent source.

Q: Can I expect any leniency if I'm caught cheating or engaging in any unethical behavior?

A: No. I will probably give you a grade of "F" for the class and I will certainly notify the dean who will be notified and asked to pursue further action. I'm serious about this and busted three people last quarter. It's not fun for me and it's really not fun for them.

Q: If I suspect that during class I may fall prey to the urge to talk to a classmate, read the newspaper, or take a nap, what should I do?

A: Stay home.

Q: The lecture is running a few minutes over, what should I do?

A: Stay put and observe a rare occurrence.

Q: In studying for the tests, should I stress studying the notes, the book, or the readings?

A: All of the above...well, the notes. I'll make sure that I don't inflict any math problems on the exams that I haven't already given you on a problem set.

Q: I can see that half of the people in this class are smarter and harder working than I am and the other half of the students are dumber and lazier than I am. What grade will I get in here?

A: B-. You are the median or middle student. Half the class will get grades of B- or better and the other half will get grades of B- or worse.

Q: Averaging my grades, I come out very close to a higher grade. How about if you give it to me?

A: No...unless you are deserving of special consideration.

Q: Am I deserving of special consideration?

A: That depends. I may feel you deserve a higher grade than you earn on the tests if I feel that your comments in class and office hours improve the education of your fellow students and show you are able to and have been thinking intelligently about the material.

Q: What will the tests be like?

A: Some problem solving, some graphing, some essays. I'll try to give you examples of the sorts of problems I am apt to ask.

Q: Is there anything, you know, weird about the tests?

A: Yes. It is always a problem getting people to hand in their tests, especially in a large class. So since time is scarce and economics is about dealing with scarcity, your decision about when you hand in your test will be an economic one. If you hand in your test by the stated ending time, you will receive a bonus of four points, if you hand in your test after five minutes of the stated ending time, you will suffer a penalty of -5 points. The penalty will increase by 10 points per minute after that (by my watch) until it quickly hits zero. Oh yes, also the tests are too long, too unclear, too hard, very picky, and only test you on what you don't know.

We will also use a BS eliminator. If you leave a major question blank, you will be given a few points for knowing what you don't know, points that will be lost if you write anything on the problem, points that will have to be earned back by doing very well on the question. The points will generally amount to 20% of the total points available on the problem.

Q: What are the math requirements for this class?

A: You will need to be able to do really simple calculus, graphing, and algebra. I'll expect you to be able to use basic economic tools like present values, expected values, the Cournot model of oligopoly and regression analysis. I will do some more complicated math for the purposes of exposition but I will not ask you reproduce it on the exams although you should understand the underlying ideas. As a guide, I will try to preview any math or exposition you might need in a problem set or test preview.

Q: When the class is over, what will I wish that I had known at its start?

A: Beyond the obvious things, in the past some students wrote on their course evaluation forms that they wish they had known my tests would be so hard. I agree that my tests tend to be a bit long and I try to make them hard. Also, I'll admit there's some reading so be careful not to fall too far behind. Now you've been warned.

Q: Is it OK to send e-mails to [m-witte@northwestern.edu](mailto:m-witte@northwestern.edu) rather than [mwitte@northwestern.edu](mailto:mwitte@northwestern.edu)?

A: Sure, that's fine, and WCAS student Matt Witte finds it pretty hilarious, particularly when the content is very confidential and time sensitive. However, don't expect me to see it anytime soon.

Q: What is the most important thing?

A: "Most important, please be assured that I want students to learn and to receive the good grades they deserve. So please make an appointment with me should you have undue difficulty with your work in the course."

#### **A special warning to seniors who are on the job market:**

When I was a student, it was my experience that each term one class in my schedule would always become "King Klass." Such a class would take up most of my study time and emotional energy. For many seniors, that class won't be this one or any other class for which you are formally registered. Instead, it will be your job search. I say this to warn you that you may find it very tough to stay focused and caught up with your schoolwork. I will have sympathy for you if your academics slip a bit because of these distractions but I'm sure you would rather have an A or B than a C (or worse) with sympathy. Budget your time well starting with the beginning of the term and try to get ahead in the reading. (Then there is the "I've got a job and but now I just can't concentrate on my classes" crowd. The above analysis still holds but without the stuff about "sympathy.")

*Any student with a documented disability needing accommodations is requested to speak directly to the Office of Services for Students with Disabilities (SSD) (847-467-5530) and the instructor, as early as possible in the quarter (preferably within the first two weeks of class). All discussions will remain confidential.*