



Course Information

Course: Economics 238w – Environmental Economics

Prerequisites: Economics 108 or equivalent.

Meetings: Tuesday and Thursday, 11:05am - 12:20pm (Harkness 115)

Course Web Pages: There will be two web pages in use for this course, an administrative site

and an interactive educational site. The administrative site can be found here - it is the UR Blackboard site for the course. The interactive site is a

page on my own website and can be accessed at

http://theunbrokenwindow.com/teaching/economics-238/.

All course materials will be available on each site with the exception of *some* course readings, which must be placed on the Blackboard site. On my website I will put up links to interesting articles, create an area for

student comments and interaction, and provide links to other

environmental economics websites.

Instructor Information

Instructor: Michael Rizzo

Office Hours: (Official Hours) Monday, Wednesday, Friday 10:00am – 10:50am;

Tuesday, Thursday 12:30pm to 1:45pm or by appointment.

Office Location: 234 Harkness
Office Phone: 275-5273

E-mail: <u>michael.rizzo@rochester.edu</u>

Other Phone: 413-553-3136 is my home line and 859-319-1518 is my cell phone. I am

more than happy to chat with you from home if you need me. Please try not to call after 10:00pm. I urge you to leave a message if I do not answer, I am often found with my hands full and neglect to charge after a ringing phone due to concerns for my own, my wife's, our animals' and our children's safety! Or I am just a grouch that doesn't enjoy answering

phones on demand.

Course Description

Henry David Thoreau drew attention to simple living and an appreciation for natural surroundings over 150 years ago. John Muir laid the foundation of the modern conservation movement shortly after Thoreau's death. However, the quality of the American environment became a leading concern for national policy makers only roughly four decades ago.





Beginning on New Year's Day in 1970, the enactment of the National Environmental Policy Act (which requires the writing of environmental impact statements for major federal activities), ignited the passage of a wave of major environmental laws and policies, each with the intention of protecting and improving the quality of the environment, changing the way federal lands are managed, and imposing limits on private landowners.

Since that time, with few exceptions, the quality of the environment has improved dramatically. The air in almost every city is far cleaner today than in 1970 despite massive increases in the number of vehicles on the road; water quality is much improved; sewage is better treated and much hazardous waste has been removed; rivers are healthier; hundreds of plant and animal species are explicitly protected by federal statute; more land is forested today than at any time over the past century; and so on.

Despite these advances, many scientists, economists and even government officials are extremely dissatisfied with America's environmental program. This dissatisfaction is a direct result of the incontrovertible fact that improvements in environmental quality are not costless. The amount of environmental quality individuals (and government bureaucrats) seek and expect is virtually unlimited – particularly given the form that most environmental regulation takes place, and given how wealthy individuals in the United States have become. However, complying with environmental regulations is a major concern of American businesses – with direct costs exceeding \$100 billion per year (that is roughly what the Department of Homeland Security AND the Department of Education spend annually) and indirect costs that are likely just as large. In other words, environmental policy arguably has as large an impact on the American economy and landscape as virtually any other area.

In this course, we will explore the sources of improvements to, and degradation in, environmental conditions. In addition, we will explore the institutional framework that environmental policy has operated in during the past, as well as how institutions shape the type and effectiveness of environmental policy of the future. While we will examine ethical and popular considerations of the environment, the course will focus on the contributions of economic science to the environment. Scientific evidence often clashes with political, religious and other interests on environmental issues. For many, any goal short of perfection is unsatisfactory. For others perfection is not the desire, but neither is protection of the environment per se. Evidence of this abounds – current regulatory procedures for protecting the environment pay little attention to the environment, and lots of attention to production inputs; the *process* of protecting the environment seems to be more important than protecting the environment itself. But this course will emphasize that in environmental economics, just as in other areas of economics, it is necessary to balance competing interests – there are more competing claims for environmental property than there are property rights.

Thus, the central concern of environmental economics is the allocation of scarce environmental and natural resources to competing (and unlimited) uses. No resource is in unlimited supply, no matter how abundant. The course will focus on the role of prices and incentives in allocating these resources, as well as the importance of the system of property rights and legal rules in this process. These institutions can help students answer the question, "How clean should the environment be, and what should be conserved and preserved?"

The course will begin with a review of microeconomic analysis and move into a discussion of the importance of property rights in an economic system, particularly when environmental amenities are the





focus. Past, present and future notions of resource use, availability and sustainability will be considered. Several weeks will be spent introducing students to the theory of environmental economics – including notions of market failure, the economics of regulation, public choice economics and methods for applying values to environmental amenities and costs of environmental policies. We will then use this theory to analyze the economics of various renewable and non-renewable resources. Depending on time and student interest, several applications can be considered – including but not limited to: Superfund; Garbage and Recycling; Climate Change; Global Governance; Energy Policy; Recreation and Wildlife Management; Air Pollution, Water; Preservation and Land Use. The course will conclude with an analysis of the distinction and reconciliation between environmental economics and modern notions of environmentalism.

Our purpose will be to encourage students to think about and analyze environmental issues from both a scientific perspective and a common sense economic perspective. Environmental policy is made neither in a vacuum, nor is capable of producing perfect outcomes. Difficult decisions must be made, and the course will equip students with the tools to identify the tradeoffs that are inherent in all environmental policy choices, the tools to help their fellow citizens understand these tradeoffs, and the tools to help them contribute to the selection and implementation of wise policy choices.

Course Materials and Resources

The readings from this course will be drawn from a short pamphlet and a variety of online sources.

- 1. The only item that is required for purchase is the pamphlet called <u>Eco-nomics: What Everyone Should Know About Economics and the Environment</u>. This pamphlet provides a nice succinct review of basic economics principles and serves as an introduction to the more advanced topics that will be covered in the course. The author is Richard Stroup. The book can be purchased from the <u>University Bookstore</u> new \$9.95 or used for \$7.45.
- 2. The Blackboard site for this course and my website will contain a list/links of readings that come from a variety of economics journals, magazines, newspapers, blogs, working papers, books. I have not asked the bookstore to bind copies of the readings; you are free to read them directly online, or to print them out on your own as your wishes dictate. I was hoping to save you a bit of money by doing this ... and to perhaps save a few trees (or am I really saving trees by doing this?)
- 3. Roger Meiners' and Bruce Yandle's, <u>Taking the Environment Seriously</u>, is <u>available online</u> via Google in limited format. This book is not required, but several of the chapters will be used in lecture material. Print copies can be ordered on <u>Amazon</u> or from some other sites, such as <u>this used book site</u>. A copy will be on reserve in the library, and I have a copy in my office.
- 4. Note that we will not be using a textbook in the course. For students that are interested in having a textbook for additional reference and study support, I recommend that you access a good intermediate microeconomics textbook (or even a good principles book) as well as a used copy of an environmental economics text (note that one reason we are not using a text in this course is that I am not satisfied that the presentation and content in currently available environmental





economics texts are appropriate for this course). For the intermediate text (or principles), a good resource would be Professor Landsburg's <u>Price Theory and Applications</u> (7th edition); a good principles review can be found in Gwartney, Stroup, et al's <u>Economics: Public and Private Choice</u> (11th or 12th edition); My recommendation for a good introductory environmental economics text for non-environmental economists is Tietenberg and Lewis' <u>Environmental Economics and Policy</u> (or older editions by Tietenberg). This text is probably the most widely used for Environmental Economics courses that contain a mix of economics majors and non-majors. Majors might find the reading a bit simplistic, but overall it provides a respectable treatment of both environmental economics as well as a related field of thought known as ecological economics.

During the course of the semester I may periodically assign articles and papers to read that have not yet been listed on the syllabus. In all cases, you will have access to PDF or other online formats on the course web page in order for you to be able to access the readings anywhere a computer is available.

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Class Policies

1. Attendance – missed classes

We are all adults and I will treat you as such. While attendance is not mandatory, I would obviously prefer it if you came to each session as I believe the material is easier to digest the more times you get to see it. In addition, I do not simply follow the readings for the class sessions – the readings are meant as a complement, not as a substitute for class time.

While attendance will not be directly factored into your grade for the course, I will be evaluating you on things that happen inside the classroom, which can obviously not be "made up" when a class is missed. Note that if you miss a class, **you** are responsible for obtaining the material that was covered in that class and you are responsible for understanding any changes to the syllabus, schedule, assignments, etc. that may have occurred in your absence – I will not provide these to you.

If you are missing a class for a college sponsored event, please notify me at least one week in advance. You should try to secure notes from a classmate, and I will make arrangements with you to make up assignments, exams, quizzes, etc.

2. Attendance - late for class

Class time is limited and students entering class late are a distraction to both fellow students and the instructor. Students arriving late for class will therefore <u>suffer a penalty of 1/3 of a grade on the most recent homework or writing assignment</u> score for each day you show up late for class. It's not OK to show up late for a job and it will not be OK to show up late for a class either.

3. Rescheduling Assignments

If the timing of a certain assignment is extraordinarily difficult for you to satisfy, please see me BEFORE the assignment is due so that we can work out a solution together. When I say BEFORE, I do not mean midnight on the evening it is due, but three or more days advance notice is sufficient.





4. Late Work

Unanticipated <u>late work will not be accepted and will receive a grade of zero</u>. This policy is in effect in order to be fair to those students that do complete their work on time. Once again, late work on a job is not acceptable, nor is it acceptable in this class. Of course, students with medical or other emergencies will not be penalized if a note from Health Services or Student Support Services has been provided to me.

5. Please be Respectful of your Fellow Classmates

Please turn off all cell phones, beepers, etc. during class. If a phone or beeper as much as vibrates during class, I will enjoy speaking with the person that calls you to let them know you are in the middle of class. If the problem persists, I will enjoy the use of that device until the next time class meets - which will include me answering all calls on your behalf during that time!

Please present yourself neatly in class and be prepared to share any snacks or meals with your classmates. Of course, feel free to bring water with you.

6. You are permitted to make audio recordings of the class sessions.

7. Students with Special Needs

If you need special accommodation for classes and / or assignments, please see me BEFORE the assignment is due or class meets so we can work out something that will make you comfortable. Students who request an accommodation must provide appropriate documentation to the Disability Coordinator in their respective college or school. A list of the various coordinators for each school can be found here. General accommodations made to qualified individuals in the past have included provision of assisted listening devices, note takers, and interpreters and arranging for extended test time, alternative test locations, and use of adaptive equipment.

8. Feedback

I urge each of you to provide me with feedback throughout the term. You may simply e-mail me or see me or place a note in my mailbox or under my office door (anonymously if you like). I have also placed a <u>lecture evaluation link on the course website</u> if you prefer your critique be publicly viewable – you can also post anonymously to this forum.

Course Requirements

A. Mid-term Examination (20% of course grade)

- The midterm examination will take place *in class* on Thursday, October 16. The midterm will count as 20% of the course grade.
- There will be NO MAKEUP examination offered. An unannounced missed exam will result in a grade of F. If you are excused from the examination, you will be asked to complete two additional writing assignments (in addition to the 4 required see below) unless we can find a way to have the exam administered by a suitable supervisor.





- B. Writing Assignments (40% of course grade).
 - Choose any 4 assignments. I plan to offer 5 different assignment options throughout the course of the term. Each individual assignment will therefore be worth 10% of your course grade. Details of each assignment will be provided during class.
 - Particularly since this course will not be taught at a highly technical level, the ability to
 convey the ideas you learn in this course is essential. An ability to write clearly and concisely
 is not only important for this course, but it is vital for your success in most any career you
 pursue beyond your time here at Rochester.
 - The assignments will have some variety to them. You will be asked to write a couple of Op-Ed pieces, undertake a simple valuation project, analyze an environmental issue of the day, and to reflect on the relationship between environmentalism and environmental economics.
 - These assignments will be used to generate additional class discussion, so please be prepared to share your work with your classmates.
 - BONUS OPPORTUNITY #1: For any of the Op Ed pieces that I assign to you, bonus points will be awarded for evidence that you have submitted the piece to a newspaper or magazine, and that the piece is being considered for publication. I do not wish to inundate the Rochester Democrat and Chronicle with submissions, so I will look favorably upon submissions to your hometown papers or if you feel like your piece is of high enough quality, to a national paper or magazine. A published piece will result in an additional 10% added to your course grade with a grade of an "A" assigned to that 10%.
 - BONUS OPPORTUNITY #2: I place a high value on creativity and an entrepreneurial mind (probably because I am neither creative nor entrepreneurial). Rather than responding to my written assignments, students that are able to create their own writing assignment will be considered for bonus points. To receive the bonus, the assignment must be original, you must complete the assignment, and it must be an assignment that would be appropriate for your classmates to complete, or for future students of Eco 238. Each assignment that you create will result in an additional 5% added to your course grade, with a grade of an "A" assigned to each 5%. Therefore, you are eligible to have 20% added to your final grade.
 - To illustrate how the bonus opportunity works, suppose your course grade for the year averages out to 89 out of a 100. If you have an Op Ed piece published in the Danville Advocate-Messenger, for example, I will add 10 more points to your grade so your new course grade would be 99 out of 110. This would average to a 90 rather than an 89. By now you might have figured out (correctly) that this bonus is "progressive" in that those of you with lower course grades can benefit proportionately more from receiving the extra credit than those of you with higher course grades.
- C. Final Examination or Research Paper (40% of course grade, you have a choice).





- The final examination will count as 40% of your course grade (if you choose to take it) and will be a three-hour written examination. The final exam is scheduled for <u>Friday</u>, <u>December 19th 4:00pm to 7:00pm in Harkness 115</u>, our regular classroom. Like the mid-term exam, the exam will be writing intensive, and will not be a humongous multiple guess test.
- You must decide by the **beginning of class on Tuesday, September 30**, whether you wish to take the final exam, or wish to write a research paper.
- Students will have the option of writing a research paper instead of taking the final exam. The research paper is expected to be 3,500 to 6,000 words (note that 3,500 words is roughly 11 pages of Times New Roman, 11 point font, double spaced and 6,000 words is about 20 pages). The research paper is intended to be a semester long process, and will not be able to be successfully completed solely at the end of the semester. I will allow the research project to be done in groups, particularly for the more labor intensive projects, but note that I expect proportionally more in quality from a group project as well.
- The research papers will consist of:

Topic (5% of project grade)

Students should present to me potential environmental or natural resource topics. Every student interested in a research project must present at least one potential topic. If you wish to work with a group this is your opportunity to persuade others to work on the topic of your choice. You may also decide to work on an alternative topic presented – I will post these outside of my office and on the web page. You must turn in a one paragraph typed summary of your proposed issue. The topic may be a local, national or global environmental or resource problem in current or historical times. Each class member will prioritize their interest in the list of topics. This topic is due on the day you decide whether to do the research paper or take the final, at the beginning of class, September 30.

Outline (10% of project grade)

The individual or group will define the research project. Each individual / group will type a one page outline introducing the natural resource or environmental issue, identifying existing institutions and current stakeholders, and noting existing and/or potential solutions. All group members will receive the same grade for the proposal which will be based on my evaluation of the topic outline. This outline is due by the beginning of class, Tuesday, October 21.

Presentation (30% of project grade)

Each individual or group will present their research findings to the class. The presentation should be about 5 minutes in length per person for a group project, 10-15 minutes for an individual project. It must define the issue, existing institutions, who is affected by it, and where. Economic analysis of the problem must be presented along with the policy implications. Each group member must be part of the presentation. Group members may present different sides of the issue (e.g., a role play of environmentalists and factory owners) or all may act as a single entity. Groups may also assign the audience a specific role (e.g., homeowners downwind of a factory). Be creative. The presentation grade will be based on an assessment by the audience, the listening class members and the professor. The presentations are to take place on <u>December 4 or</u>





sooner.

Paper (55% of project grade)

Each individual or group will write a single paper identifying and analyzing the chosen environmental or natural resource issue. The paper should be 3,500 to 6,000 words in length with a cover page, stapled on the top left corner and with all authors' names on it. References must be cited in parenthesis (e.g., Rizzo 2008, 10) with a Chicago style bibliography (e.g. Rizzo, Michael. 2008. *Are We Frogs in a Pot?* American Institute for Economic Research, Great Barrington, MA). The paper will be assessed based on its content, understanding of the topic, the economic analysis, and creativity and feasibility of presented solutions. All papers are due on Monday, December 15 by 5:00pm, with absolutely no exceptions. Individual assessments for each of the group members are due at the same time. The individual assessments have the potential to raise or lower an individual's grade one letter grade relative to the group grade. Hence, group member grades may differ.

- Some possible topics for the research project include:
 - i. Chronicle the history of environmental legislation in the United States. Analyze the environmental economic problems that the legislation was intended to correct and analyze the impacts of the legislation both intended and unintended. Particularly good histories will also include research and observations on the institutional causes (and perhaps consequences) of the legislation; identification of the major stakeholders; and a comparison of how the legislation relates to what you would consider optimal environmental policy. Papers that include data on the environmental issues in question will be looked upon favorably.
 - ii. Write a Case Study of an important environmental policy issue. See me for examples of high quality (Masters level) papers.
 - iii. Perform an environmental valuation or benefit estimation project. Again, see me for more details.
 - iv. Identify two environmental groups that have as a core mission protection of some specific resource, or of preservation and conservation generally. Describe the methods each organization uses to achieve its goals. Evaluate why the organization chooses these methods from an ethical, political and economics standpoint. Using what you have learned in this class, evaluate the quality of the institutions' goals, policies and outcomes from an environmental economic point of view if, in fact, the actual goal of the organization is as it is stated. Discuss and analyze the relationship between each organization and American or global governmental institutions. Does each institution work in concert with government? In spite of government? And compare how well each institution achieves its objectives with those of existing or historical governmental bodies that intended to do the same thing. Finally, outline the future challenges and opportunities for each organization. Examples of such organizations include:





Environmental Defense Fund, the Nature Conservancy; Trust for Public Land; Sierra Club; National Parks Conservation Association; Natural Resources Defense Council; Earth First!; Greenpeace; Worldwatch Institute; World Wide Fund for Nature; National Audubon Society; Wilderness Society; the American Chestnut Foundation; the Cornell Lab of Ornithology; various outdoor recreation organizations such as the Appalachian Mountain Club, and many, many more.

- v. Student instruction of environmental economics topic in the community. Details will be coming soon.
- vi. A research project of your own choosing.
- D. Course Contributions and Classroom Productivity (my discretion)

This is not simply a verbal class participation requirement. A small portion of your final course grade will be a function of how well you are making use of your time outside of class. Due to the very short time span in which a large amount of the material is covered, it will be nearly impossible for you to appreciate the complexities of economics without doing all of the assigned readings and exploring in detail the many questions I will be asking. This is particularly the case given that the amount of reading you might do to introduce yourself to environmental economics is infinite plus I do not like to follow the readings precisely. That does not mean you are not responsible for all of that material. Your hard work and seriousness of purpose will benefit all of your classmates as it will vastly expand the number of things we can discuss and learn in class, but also enhance the depth of the debates that will take place. To the extent that you are able to raise the level of the conversations we have in class by your preparation and asking of serious questions in class, you will be rewarded in your grades. To the extent that you demonstrate a lack of respect for your classmates and the instructor by either not preparing fully for class, by not being fully attentive in class or by not pulling your weight in completing the assignments, your course grade will be negatively affected.

Grading Policy

To summarize from above, your course grade will be comprised of:

Midterm Exam (October 16) Ι.

20% 40%

Written Assignments (4 of them) П. III. Course contributions and productivity

my discretion

Items I, II and III above are mandatory. Then students can choose one of the following:

IV. Research Paper (presentation 12/4, paper 12/15) 40%

or

٧. Final Exam (December 19) 40%

Note that if you wish to take the final exam and also to complete the research project, I will drop your





two lowest writing assignment scores, and then allocate your grade as 20% midterm, 20% writing, 30% final, 30% research paper.

Grades will be based on your demonstration and mastery of knowledge and skills learned throughout the formal course meetings and on your ability to think critically about and to analyze the situations you encounter outside of the classroom.

Though the total of the above scores is 100% there will be ample opportunities to either improve upon or damage your grades. Some have already been pointed out; I will point out others as we move through the semester.

You are NOT in competition with your fellow classmates for grades. **Economics is NOT a zero-sum game, nor is learning**. I have no limits on the number of A's I will award. At the same time, I do not have a target number of scores to award either. You will receive the grade that you **earn**. While effort alone is not sufficient to secure a top grade, students that demonstrate a continued effort throughout the course will have many opportunities to improve upon a poor grade.

The grades will not be curved. Your total score for the course will be converted into a percentage (properly rounded). Then, I will use the following grade scale to determine your letter grade:

| 94% - 100% | Α |
|------------|----|
| 90% - 93% | A- |
| 88% - 89% | Вн |
| 83% - 87% | В |
| 80% - 82% | B- |
| 78% - 79% | C+ |
| 73% - 77% | С |
| 70% - 72% | C- |
| 60% - 69% | D |
| below 60% | F |

Regrading Policy

In cases where clear grading mistakes have been made (e.g. points are added up incorrectly) please notify me immediately and I will correct them.

In cases where there is a dispute over a grade, I ask that students not just "barge into my office" with a complaint. I will listen to all disputes as long as the student submits a written (or e-mailed) description to me as to why she/he feels the grade is incorrect before you come to see me. If it is clear that I have made a mistake, I will make the change. In cases where complaints are non-specific and your submission does not address the economics of the question asked, I will not consider the request.

Some other thoughts on grades:

For those of you that are nostalgic about higher education, I pulled the following grading guidelines from a professor at an elite liberal arts college in the early 20th century:

Students shall receive a letter grade of:





A when students have excellent command of the subject matter and demonstrate an ability to apply their knowledge beyond the specificity of the course materials. Their knowledge of the subject matter includes some of the finer points of economics and may include information not specifically addressed in any one lecture. These students would be able to break down this material and explain it to people with no prior knowledge of the subject. This presentation often takes a different form than the way it was presented to them in class;

B when students have a very good command of the main ideas of the subject matter. These students would be able to give out the course material in a manner similar to which it was given to them;

C they are similar to a B student accept that command of the main ideas is rudimentary and fragmented;

D when students have very little knowledge of the subject matter, but demonstrate at the very least that they recognize some of the material that has been presented to them;

F when students have clearly made no effort to learn. Their performance is indicative of such and their work shows no interest in the subject matter and does not demonstrate that the material is even familiar to them.

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Academic Honesty

Academic honesty is a serious matter; students in this course are expected to strictly abide by the College of Arts and Science's Academic Honesty Policy. The entire policy can be <u>read here</u>. More information about these policies can be found at this <u>website</u>. If I suspect a student of compromising their honesty or integrity, I am bound by university policy to report the incident to the Board of Academic Honesty. Note that by university policy I am <u>not</u> permitted cases of suspected dishonesty on my own with the exception of there being a very clear cut case of misunderstanding.

Course Topics

We have 14+ weeks of class and only 36+ class hours to work with. In order to keep the pace of the course flexible and the content adaptable, I will include an outline of the topics and readings I'd like to cover, but the specific dates (as well as the topics) and relevant readings are subject to change. I will put supplemental readings on the course readings section of the blackboard webpage and my webpage. The mandatory readings can be found in the list below. Links to the required readings, and a more extensive supplemental reading list will be handed out, and are available on the course website.

| Date | Topic | Readings |
|------|------------------|-----------------------------------|
| 9/2 | Introduction | Stroup Ch1; Fullerton and Stavins |
| 9/4 | Economics Review | Schenck |
| | | |





| | Institutions, Welfare and | |
|-------|--|---------------------------------|
| 9/9 | Efficiency | Hayek; Adler |
| | Property Rights and the | |
| 9/11 | Environment | Stroup Ch2; Stroup (2004) |
| | | |
| | Property Rights and the | |
| 9/16 | Environment | Alchian; Demsetz |
| | Ethics and Environmental | |
| 9/18 | Economics | Power and Rauber |
| | | |
| | Ethics and Environmental | |
| 9/23 | Economics | Schulze and Kneese; Sagoff |
| - / | | |
| 9/25 | Running Out of Resources | Solow; Diamond; Malthus |
| | | |
| 9/30 | Running Out of Resources | Bailey; Ausubel; Simon |
| | Theory I: Externalities (Common | <u> </u> |
| 10/2 | Property Experiment) | Hardin; Coase; Gordon |
| | | |
| | Fall Break, Monday | y October 6 |
| | | |
| 10/7 | Theory I: Anti-Commons | Heller |
| | | GAO; Stewart; Schulze and |
| 10/9 | Theory II: Regulation and Coase | D'Arge |
| | | 9 |
| | Theory III: Standards and | |
| 10/14 | Permits (possible experiment) | Sandel; Stavins |
| 10/14 | тенниз (роззыве ехренитент) | Sander, Stavins |
| 10/16 | MI DTERM EXAM | |
| | | |
| | Political Economy of Government | Stroup Ch3; Yandle; Roberts; |
| 10/21 | Regulation | Adler |
| | Political Economy, Cont'd: Is | |
| 10/23 | There a 3rd Way? | Getz |
| | | 3312 |
| | Donofit Coot Archiving and the | Amoust of all Dalman at al. EED |
| 10/28 | Benefit-Cost Analysis and the Environment | Arrow et al; Palmer et al; EEB; |
| 10/28 | | Grist |
| 10/20 | Value of Statistical Life: Wages | Viscusi: Mallaby: CNN |
| 10/30 | and Job Risks | Viscusi; Mallaby; CNN |





| Final | Friday | December 19, 2008 |
|-------|---|---|
| | | |
| 12/11 | Environmental Economics | (1993) |
| 12/7 | Environmentalism vs. | Olson; Nelson (2008); Nelson |
| 12/9 | Economics and Environmental Management | Stroup Ch4; Fretwell; Bailey |
| 12/4 | Breathing Room or Appli | cation: Students' Choice |
| 12/2 | Application: Global Climate Change | Rizzo; Nordhaus (1993 and 1990); McKibben & Wilcoxen; Schelling |
| | manksgiving break, wet | 13 1 17 20 at 110011 |
| | Thanksgiving Break, Wed | ds 11/26 at noon |
| 11/27 | NO C | CLASS |
| 11/25 | Application: Garbage and Recycling | White & Glod; Scarlett & Grogan; Weddle & Klein; EPA; Simon |
| 11/20 | Application: Superfund | Sunstein; Stroup (2001) |
| 11/18 | Renewable Resources: Water & Forests | Willey; Fairfax; Victor and Ausubel |
| 11/13 | Renewable Resources: Fisheries | Fujita, et al; Czech and Pister |
| 11/11 | Non-renewable Resources | Simon |
| 11/6 | Non-renewable Resources | Hotelling |
| 11/4 | Other Valuation Methods: CV, Travel Costs, Etc. (possible experiment) | Portney; Hanemann; Fix |

| Final | Friday | December 19, 2008 |
|-------|--------|-------------------|
| Exam | 4:00pm | Harkness 115 |