Course schedule: Monday 11:30 - 2:30  
Course location: FSS4012  
Office: FSS 9038  
Office hours: Thursday 11:30 - 1:30 (or just drop by my office another time - I’m usually in!)  
Telephone: x 1135  
E-mail: aheyes@uottawa.ca

Course Description

Awareness of environmental problems - and the need for society to develop mechanisms to better protect the natural environment - has increased markedly in the past 25 years. The field of environmental economics has also blossomed in that time, from being at the fringe of the discipline to being one of the major mainstream fields. The economic analysis of the environment is important and current. Environmental economists work in the private, government and third sectors, international agencies, etc. It is also very attractive as a research area (I am always actively looking for motivated students who want to progress to PhD). As a comparatively young field there remains lots of space to write important papers, something not true in more mature parts of economics. The key environmental issues are rapidly-evolving - as is our understanding of them - and most research topics are deeply trans-disciplinary. The next decade will be a great time to be working in this field.

This is a topics-based, graduate level course in environmental economics. Topics-based means that we don’t try to survey the whole field, rather we will explore particular parts of the
literature in greater detail. The aims are to understand general principles, see some applications, and get a feel for how economists working at the research boundary go about modeling environmental problems and policies.

The course will cover 10 topics, chosen to be important and interesting. For each topic a ‘cluster’ of readings is assigned. These are mostly journal articles, but some government documents and book chapters. Class time will be spent working through the articles, discussing their strengths and weaknesses, and connections between them. Some of the material I will present, some of it will be presented by participants.

There is no textbook for the course. However, if you want one to support your wider interest and learning in environmental economics, then my recommendation would be: Perman, R. Y. Ma, J. McGilvray ad M. Common *Natural Resource and Environmental Economics* (3rd Edition) Pearson-Addison-Wesley, which is a very good book and quite comprehensive. Much of what we do is too recent or specialized to make it into a textbook of this sort, however, so you do not need it - our focus will be on the articles on this reading list.

**Course Requisite**

Permission of instructor. Upper-level micro strongly recommended (caveat emptor!)

**Course Requirements**

1. **Readings and Exams:** You are expected to study ALL of the assigned readings. This will require dedicated study. Most of the readings are journal articles and in some cases are very challenging. You are not expected to ‘learn’ mathematical models, but understand the key features of the models, their implications and the connections between them. A 2 hour mid-term in class on October 20 will cover the first 5 topics and be worth 25% of your final mark. A 3 hour final exam at the end of term will cover all 10 topics and be worth 50% of your final mark.
2. **Presentation:** Each week participants will present one or more of the readings (the readings marked with asterisks below are for student presentations – though there may be some adjustment) and lead a discussion of its significance. Details of the presentation format are listed below. Presentations will be done in pairs with assignments made by lottery each week (e.g. on Nov 3 we will draw names of presenters for Nov 10). It is up to you to divide work and presentation duties between yourselves - teamwork is a vital part of almost every modern workplace. Everyone will present either once during the term, and each member of the pair will receive the same mark. You will receive structured feedback on each presentation, and the highest mark will count.

3. **Research Policy Paper:** Each student has the option to write a short paper that uses economic thinking to analyse a current policy problem or question. In determining your mark for the course I will take the HIGHER of your midterm score and your score on the Research Policy Paper. It is not compulsory that you submit a paper, and I suggest that you only do so if you are disappointed with your performance on the mid-term. We will talk about what makes a good topic later in the term. Please get your title approved by me before you start work on it. **If you choose to write a paper, it is due for submission no later than 9 pm on Dec 5.** Please email your paper to me at aheyes@uottawa.ca as a single PDF file. Papers should be 10 pages long, double-spaced with a 12 point font.

**Marking Scheme**

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<tr>
<th>%</th>
<th>Description</th>
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<tbody>
<tr>
<td>25</td>
<td>Presentation Score</td>
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<tr>
<td>25%</td>
<td>Midterm OR Research Policy Paper</td>
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<td></td>
<td>(submission of paper optional - highest score counts)</td>
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<td>50%</td>
<td>Final Exam</td>
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**Presentations**
Oral presentation is a vital skill in most professional settings and is an important element of this course. A presentation should last 25 minutes, and be followed by a discussion period of 5 minutes. You will be expected to regulate time yourself, and induce/manage the discussion. Slides should be a simple PDF file that you bring to class on a memory stick.

The presentation should identify succinctly: (a) the research question (b) the key novelty in the modeling/empirical strategy and (c) main insights. Do not get bogged down in presenting too much of the math, or literature review: identify and present the key bits. Doing this requires careful reading and contemplation of the paper. You are encouraged to be critical, and to locate briefly the contribution in the literature.

In addition, you should finish you talk by presenting an idea of a research project inspired by the paper (in other words, suggest another paper that could be written). The idea could be a twist to the assumptions in a theoretical model, or an idea for how/where a testable hypothesis could be tested.

You will be marked on the clarity of your presentation, your ability to distil the key elements, and the quality of your research idea.

**Schedule**

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<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Notes</th>
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<tr>
<td>September 8</td>
<td>Topic 1</td>
<td>Pollution Control Instruments</td>
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<tr>
<td>September 15</td>
<td>Topic 2</td>
<td>Enforcement</td>
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<td>September 22</td>
<td>Topic 3</td>
<td>Behaviour and regulation</td>
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<td>September 29</td>
<td>Topic 4</td>
<td>International Environmental Agreements</td>
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<tr>
<td>October 6</td>
<td>Topic 5</td>
<td>Green Activism</td>
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<td>October 13</td>
<td>No class</td>
<td>Study Break</td>
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<tr>
<td>October 20</td>
<td>Midterm</td>
<td>On Topics 1 - 5</td>
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<tr>
<td>October 27</td>
<td>Topic 6</td>
<td>Cost-Benefit Analysis: Principles</td>
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<tr>
<td>November 3</td>
<td>Topic 7</td>
<td>Revealed Preference Methods</td>
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<td>November 10</td>
<td>Topic 8</td>
<td>Contingent Valuation</td>
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<tr>
<td>November 17</td>
<td>Topic 9</td>
<td>Irreversibility and Discounting</td>
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Readings (asterisk denotes item for student presentation)

**Topic 1 - Pollution Control Instruments**

**Topic 2 – Enforcement**

**Topic 3 - Behavior and Regulation**

**Topic 4 - International Environmental Problems**
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**Topic 5 - Green Activism**

Heyes et al (2013) “Contest Models and Environmental Policy” in Encyclopedia of Energy, Natural Resources and Environmental Economics (I will distribute this a week before class)

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**Topic 6 - Cost Benefit Analysis: Principles**


Case studies to be added for student presentation.

**Topic 7 - Revealed Preference Methods**


“Hedonic Pricing Methods” at [http://www.ecosystemvaluation.org/hedonic_pricing.htm](http://www.ecosystemvaluation.org/hedonic_pricing.htm)

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**Topic 8 - Contingent Valuation**
Perman, R. et al Natural Resource and Environmental Economics (3rd Edition) Section 12.5, pp 420 - 435 (I will distribute copies of this a week before class).

**Topic 9 - Irreversibility and Discounting**
Weitzman, M. (2001) “Gamma Discounting” American Economic Review (don’t get too bogged down with Weitzman’s mathematics, you might prefer and example such as that in Eric Rasmussen's blogpost at [http://www.rasmusen.org/t/2008/06/weitzmans-gamma-discounting.html](http://www.rasmusen.org/t/2008/06/weitzmans-gamma-discounting.html) *

**Topic 10 - To be determined - something topical and reflecting participant interests**

**Absence from an examination or late submission of an assignment**
Absence from any examination or test, or late submission of assignments due to illness, must be justified; otherwise, a penalty will be imposed. The Faculty reserves the right to accept or reject the reason offered. Reasons such as travel, employment, and misreading the examination schedule are not usually accepted.

Beware of Academic Fraud!

Academic fraud is an act committed by a student to distort the marking of assignments, tests, examinations, and other forms of academic evaluation. Academic fraud is neither accepted nor tolerated by the University. Anyone found guilty of academic fraud is liable to severe academic sanctions.

Here are a few examples of academic fraud:

- engaging in any form of plagiarism or cheating;
- presenting falsified research data;
- handing in an assignment that was not authored, in whole or in part, by the student;
- submitting the same assignment in more than one course, without the written consent of the professors concerned.

In recent years, the development of the Internet has made it much easier to identify academic plagiarism. The tools available to your professors allow them to trace the exact origin of a text on the Web, using just a few words. In cases where students are unsure whether they are at fault, it is their responsibility to consult the University’s Web site at the following address: http://www.socialsciences.uottawa.ca/eng/writing_tools.asp « Tools for Writing Papers and Assignments ».

- Persons who have committed or attempted to commit (or have been accomplices to) academic fraud will be penalized. Here are some examples of the academic sanctions, which can be imposed: a grade of « F » for the assignment or course in question;
- an additional program requirement of between 3 and 30 credits;
- suspension or expulsion from the Faculty.

Last session, most of the students found guilty of fraud were given an « F » for the course and had between three and twelve credits added to their program requirement.

For more information, refer to:
http://www.uottawa.ca/academic/info/newsletter/fraud_e.html