

Department of Economics and Finance

ECON*4930/6800 Environmental Economics Winter 2014



PROFESSOR ROSS MCKITRICK

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Course: Use Courselink page

Class Time: Tuesday and Thursday 2:30 – 3:50 PM

Location TBA

Office Hour: Tuesday and Thursday 1:00 – 2:00 PM or by appointment

It is your responsibility as a student to be aware of and to abide by the University's policies regarding academic misconduct, e-mail communication, maintaining copies of out-of class assignments, what to do when you cannot meet a course requirement, the drop date for this semester etc. To understand these policies, visit:

https://dev.web.uoguelph.ca/economics_d7/important-notice-about-students-responsibilities-and-university-policies

SYNOPSIS

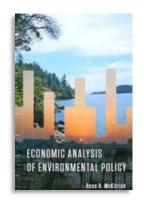
This course looks at the impact of economic activity on environmental quality, and the impact of environmental policy on the economy. We will cover the concept of externalities, growth and the environment, the optimal control of pollution, policy design and analysis, and specific issues like air pollution and climate change.



We will develop and apply systematic microeconomic tools for the analysis of environmental issues including the design and analysis of policies to respond to these impacts. Since environmental policy is having a growing impact on every aspect of society, the ability to think systematically about these questions will be of benefit whether you plan to work in the public or private sector. This course also provides a basis for those intending to do academic research and

graduate studies in the area of environmental economics.

Assignments will focus on giving you practice at integrating the theory into real world debates and policy discussions. The exams will be more focused on testing your grasp of the theory. We will set aside some class time to take up chapter exercises, but it will be important for you to take the time to work on the material yourself in order to be prepared for the exams.



COURSE MATERIALS

You must purchase *Economic Analysis of Environmental Quality* by yours truly, published by University of Toronto Press. I will also supplement the textbook with additional readings from time to time.

LAPTOPS, IPADS, BLACKBERRIES, IPOD TOUCHES, ETC.

The airplane rule applies: You many **not** use any of these items in class. If you have an electronic device with you when you arrive it must be powered down completely. I realize that some of you like to take notes on your laptops, but pen and paper will have to do. As far as keeping up with Facebook, Twitter, email etc., the world can do without you for 90 minutes.



PREREQUISITES

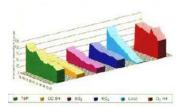
For students in ECON*4930 I assume you have taken 3rd year microeconomics. If you haven't, as long as you did a math econ course and you did reasonably well in 2nd year economics, you should be OK in this course. For students in ECON*6800 you definitely need to have taken an advanced microeconomics course.

Course work and Evaluation

There will be one midterm (10%), two assignments (20% and 30% respectively) and one final exam on ---. The assignments are as follows.

ASSIGNMENT NUMBER 1.

Using data available from Environment Canada, you will prepare a report on the evolution of air quality in a major Canadian city from 1974 to the present, and then present it to the class. ECON*6800 students must work on their own; ECON*4930 students may work in groups of up to three



students. By the end of the second week of class you need to tell me who is in your group and which city you will study. The list of available cities will be posted on the courselink page, along with the questions your report needs to answer.

Two classes will be set aside in February for students to present their reports. Your grade will be 60% based on your written report and 40% on your oral presentation.

ASSIGNMENT NUMBER 2.



You will participate in mock hearings on one of several topics. You will be assigned to act either on Team A (arguing for the issue), Team B (arguing against the issue), or on the Hearing Panel (making a ruling). The subjects of the hearings will be announced at the end of the third week when Team assignments are made.

If you are on a presenting Team (A or B) you need to research and write a Brief to be submitted to the Panel prior to the hearings, and then make presentations on the day of the

hearings. I will give some guidance on the class website about what a Brief should contain.

If you are on a Panel you must release terms of reference outlining specific issues you want Teams to address and questions you want answered. Then you must study the submissions, double check the information in them, cross examine each Team at the hearings and then issue a written finding shortly afterwards. Teams are not limited in their submissions to the terms of reference, they can raise other issues as they see fit.



50% of your mark will be based on your written work and 50% on the oral work. Your group's grade will be based on the quality of your work, the soundness of your economic reasoning, your presentations and your research, but not specifically on whether you prevail in the judgment or not.

The timeline of this assignment is as follows.

Teams announced January 23
Terms of reference due February 13
Team Briefs due March 4
Hearings 1 March 18
Hearings 2 March 20
Findings submitted March 27

Each Team will be given a copy of the opposing Team's brief only on the day of the Hearings. The hearings will proceed as follows.

Opening remarks Team A 10 minutes
Panel Examination of Team A 15 minutes
Opening remarks Team B 10 minutes
Panel Examination of Team B 15 minutes
Closing remarks Team A 5 minutes
Closing remarks Team B 5 minutes

COPYING AND PLAGIARISM

You are expected to know the University rules on academic misconduct. A synopsis is online at https://dev.web.uoguelph.ca/economics_d7/important-notice-about-students-responsibilities-and-university-policies. Due to repeated problems I have encountered in recent years, rather than me simply tell you what the rules are, I now require all students to certify their understanding of the rules by signing the last page of this course outline and returning it to me. I will not grade any of your work until I have a signed copy of the form from you.

COURSE EVALUATION

You will be asked to complete an evaluation of this course at some point during the last two weeks of the semester. The Department of Economics policy regarding the conduct and use of these evaluations can be found at:

https://www.uoguelph.ca/economics/course-evaluation At any time during the course you may also provide feedback directly to me by writing your comment on a twenty dollar bill and slipping it under my door.

CONTRIBUTIONS TO DEPARTMENTAL LEARNING OBJECTIVES

Skills Written Communication Ability to write with clarity, to provide a coherent

account of the work done and the findings, and to

edit and correct one's own writing.

Oral Communication Ability to condense one's written material into a

brief and informative presentation and to deliver it

with clarity.

Group work Ability to coordinate effort in teams and

collaborate.

Real world problem solving Ability to obtain relevant data, perform

appropriate analyses and present a written report arguing for valid conclusions. Ability to theorize about real world problems, develop an appropriate

analytical framework and use it to generate reasonable answers and persuasive arguments.

appropriately and to compute valid results using

econometric software.

Knowledge Microeconomic Modeling, Understanding of Specific Markets

Statistical and Econometric Methodology

Mathematical Methodology

ECON*4930/6800 Class Sequence and Readings

| DATES | TOPIC | READINGS |
|--------------------------------------|---|-----------------|
| Issues, Instruments and Institutions | | |
| Week 1 | Issues, Instruments and Institutions | Chapter 1.1—1.4 |
| | Economic growth and the environment | Chapter 1.5 |
| | | |
| | Environmental Microeconomics | |
| Week 2 | Valuation of the environment | Chapter 2.1—2.4 |
| | Discounting, Inequality & Risk | Chapter 2.5—2.9 |
| Week 3 | The Marginal Abatement Cost curve | Chapter 3 |
| | Optimal emissions level | Chapter 4.1—4.4 |
| Week 4 | In-class review exercizes | |
| | Non-point sources, dynamic efficiency | Chapter 4.5—4.7 |
| Week 5 | Urban AQ Presentations 1 | |
| | Urban AQ Presentations 2 | |
| Week 6 | Incentives and information | Chapter 5.1 |
| | MIDTERM EXAM February 13 | |
| Week 7 | Instrument choice under uncertainty | Chapter 5.2 |
| | | |
| | Policy Analysis | |
| | Standards | Chapter 6.1-6.2 |
| Week 8 | Monitoring and Enforcement | Chapter 6.3 |
| | Tradable Permits | Chapter 7 |
| Week 9 | Emission Taxes | Chapter 8 |
| | Bargaining and Tort Law | Chapter 9 |
| Week 10 | Mock Hearings 1 | |
| | Mock Hearings 2 | |
| Week 11 | International Trade and Pollution | Chapter 10 |
| | Defining and Measuring Sustainability | Chapter 11 |
| Week 12 | TBA/Review | TBA |
| | | |
| TBA | Final Exam 8:30-10:30 am | |

Agreement Concerning Plagiarism and Academic Misconduct Rules

I hereby acknowledge that I have reviewed Departmental and University policy on Academic Misconduct and plagiarism as outlined at the following links:

- http://www.uoquelph.ca/registrar/calendars/undergraduate/current/c01/index.shtml
- http://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08amisconduct.shtml

I acknowledge that I may not copy text, images or other material from internet sources, other students, or elsewhere, and present it as my own work. Any amount of text taken word-for-word from another source must either be presented as a quotation and its source acknowledged, or rewritten in my own words. Failure to do so constitutes plagiarism and is an Academic Offence.

I acknowledge that rewriting must constitute a comprehensive rephrasing of source material. It is not sufficient merely to make trivial changes while retaining the original wording. For example, comparing the following two sentences:

Academic misconduct is behaviour that erodes the basis of mutual trust on which scholarly exchanges commonly rest, undermines the University's exercise of its responsibility to evaluate students' academic achievements, or restricts the University's ability to accomplish its learning objectives.

Academic misconduct is behaviour that generally erodes the basis of trust on which scholarly exchanges commonly rest. It also undermines the University's exercise of its responsibility to evaluate all students' academic achievements, or it restricts the University's ability to accomplish all of its learning objectives.

the second is a trivial modification of the first. I acknowledge that presenting one's own work after only a trivial modification of the original source is plagiarism.

I further acknowledge that it is the policy of the Department of Economics and Finance that all cases of suspected Academic Misconduct must be referred to the Dean's Office, and that no special arrangements for reduced penalties can be negotiated between faculty and students. It is my responsibility, if I am unsure whether I am in compliance with University rules on plagiarism, to seek advice from the faculty prior to submitting the work in question.

| SIGNED: | |
|---------------------------|-----|
| Name and student ID (prin | t): |
| | |
| Date: | |