



# ECON\*6800 Environmental Economics F 2014

## 0.5 Credit

### General Course Information

**Instructor:** Ross McKitrick

*Email* ross.mckitrick@uoguelph.ca  
*Office Location* MacKinnon 730  
*Web Page* <http://www.uoguelph.ca/~rmckitri/ross.html>  
*Office Hours* Wednesday 11 AM  
*Department/School* Economics and Finance

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Monday & Wednesday, 2:30 – 4PM, MacNaughton 201

**Class Schedule:** NOTE: Some classes will be held concurrent with ECON\*4930 at 11:30 – 1PM in ALEX309, as long as this does not produce a scheduling conflict for anyone.

**Pre-requisites:** You need to have taken an advanced undergraduate microeconomics before taking this course.

### Course Description

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.

### Indicative Content

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 Assessment

			<b>Associated Learning Outcomes</b>	<b>Due Date/ location</b>
<b>Assessment 1:</b>	15%	This will be distributed via Course Link during the first week of the course. You will write a report on an Ontario community assessing how its air and water quality has changed as it has grown.	<b>SKILLS</b> -Written Communication -Numerical Problem Solving -Analytical Problem Solving -Problem Solving in a Real World Context -Computer skills <b>KNOWLEDGE</b> - Historical and Global context	Sept 29 in class
<b>Assessment 2:</b>	10%	You will write a short essay on a topic to be assigned via Courselink	<b>SKILLS</b> -Written Communication -Analytical Problem Solving -Problem Solving in a Real World Context <b>KNOWLEDGE</b> - Historical and Global context	October 22 in class
<b>Assessment 3:</b>	20%	You will write a literature review on one of 4 topics: <ul style="list-style-type: none"> <li>• Discounting under uncertainty or over very long time scales</li> <li>• Tax interaction effects and the double dividend</li> <li>• Carbon leakage effects</li> <li>• Trade liberalization and pollution</li> </ul>	<b>SKILLS</b> -Written and oral Communication -Numerical Problem Solving -Analytical Problem Solving -Problem Solving in a Real World Context -Computer skills -Group Work <b>KNOWLEDGE</b> - Historical and Global context	October 22 in class
<b>MidTerm:</b>	15%			Oct 15 in class
<b>Final:</b>	40%			
<b>Total</b>	<b>100%</b>			

## 6800 Course Sequence

Week 1	<ul style="list-style-type: none"><li>▪ Issues, Instruments and Institutions</li><li>▪ Economic growth and the environment</li></ul>	Chapter 1.1—1.4 Chapter 1.5
Week 2	<ul style="list-style-type: none"><li>▪ Valuation of the environment</li><li>▪ Discounting, Inequality &amp; Risk</li></ul>	Chapter 2.1—2.4 Chapter 2.5—2.9
Week 3	<ul style="list-style-type: none"><li>▪ The Marginal Abatement Cost curve</li><li>▪ <u>In-class review exercises</u></li></ul>	Chapter 3
Week 4	<ul style="list-style-type: none"><li>▪ Optimal emissions level</li><li>▪ Non-point sources, dynamic efficiency</li></ul>	Chapter 4.1—4.4 Chapter 4.5—4.7
Week 5	<ul style="list-style-type: none"><li>▪ Incentives and information</li><li>▪ <u>In-class practise exercises</u></li></ul>	Chapter 5.1
Week 6	<b>MIDTERM EXAM October 15</b>	
Week 7	<ul style="list-style-type: none"><li>▪ Instrument choice under uncertainty</li><li>▪ Standards</li></ul>	Chapter 5.2 Chapter 6.1-6.2
Week 8	<ul style="list-style-type: none"><li>▪ Monitoring and Enforcement</li><li>▪ Tradable Permits</li></ul>	Chapter 6.3 Chapter 7
Week 9	<ul style="list-style-type: none"><li>▪ Emission Taxes I</li><li>▪ Emission Taxes II</li></ul>	Chapter 8
Week 10	<ul style="list-style-type: none"><li>▪ Bargaining and Tort Law</li><li>▪ International Trade and Pollution</li></ul>	Chapter 9 Chapter 10
Week 11	<ul style="list-style-type: none"><li>▪ Defining and Measuring Sustainability</li><li>▪ State-Contingent Pricing</li></ul>	Chapter 11 TBA
Week 12	<ul style="list-style-type: none"><li>▪ Climate Change I</li><li>▪ Climate Change II</li><li>▪ Review</li></ul>	TBA TBA

## Course Resources

### Required Texts:

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

### Other Resources:

You are required to consult the Courselink page regularly for this course. Data will be disseminated online, as will some publicly-available readings.

## Course Policies

### Grading Policies

Written assignments are due (hard copy only) in class, at the start of class, on the indicated date. Late Assignments must be submitted to the Economics Main Office. Assignments received after class but prior to the end of the same day will receive a 15% penalty. Assignments submitted the following day will receive a 30% penalty. Assignments will not be accepted thereafter and will receive a grade of zero.

### Course Policy regarding use of electronic devices and recording of lectures

You may **not** use Laptops, Ipads, Tablets, Smartphones, Blackberries, Google Glass or any other electronic device, including recording devices, 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. You will not be called upon to do anything in class that requires an electronic device.

## **University Policies**

### **Academic Consideration**

When you find yourself unable to meet an in-course requirement because of illness or compassionate reasons, please advise the course instructor in writing, with your name, id#, and e-mail contact. See the academic calendar for information on regulations and procedures for

Academic Consideration: <https://www.uoguelph.ca/registrar/calendars/graduate/2014-2015/>

### **Academic Misconduct**

The University of Guelph is committed to upholding the highest standards of academic integrity and it is the responsibility of all members of the University community, faculty, staff, and students to be aware of what constitutes academic misconduct and to do as much as possible to prevent academic offences from occurring.

University of Guelph students have the responsibility of abiding by the University's policy on academic misconduct regardless of their location of study; faculty, staff and students have the responsibility of supporting an environment that discourages misconduct. Students need to remain aware that instructors have access to and the right to use electronic and other means of detection. Please note: Whether or not a student intended to commit academic misconduct is not relevant for a finding of guilt. Hurried or careless submission of assignments does not excuse students from responsibility for verifying the academic integrity of their work before submitting it. Students who are in any doubt as to whether an action on their part could be construed as an academic offence should consult with a faculty member or faculty advisor.

The Academic Misconduct Policy is detailed in the Graduate Calendar:

<https://www.uoguelph.ca/registrar/calendars/graduate/2014-2015/>

### **Accessibility**

The University of Guelph is committed to creating a barrier-free environment. Providing services for students is a shared responsibility among students, faculty and administrators. This relationship is based on respect of individual rights, the dignity of the individual and the University community's shared commitment to an open and supportive learning environment. Students requiring service or accommodation, whether due to an identified, ongoing disability or a short-term disability should contact the Centre for Students with Disabilities as soon as possible.

For more information, contact CSD at 519-824-4120 ext. 56208 or email [csd@uoguelph.ca](mailto:csd@uoguelph.ca) or see the website: <http://www.csd.uoguelph.ca/csd/>

### **Course Evaluation Information**

Please refer to: <https://www.uoguelph.ca/economics/course-evaluation>

### **Drop date**

The last date to drop one-semester courses, without academic penalty, is October 31<sup>st</sup>, 2014. For regulations and procedures for Dropping Courses, see the Academic Calendar:

<https://www.uoguelph.ca/registrar/calendars/graduate/2014-2015/>

## Course Learning Outcomes

Upon successfully completing this course, you will have acquired the following:

<b>Skills</b>	Written Communication	<i>Ability to write about issues relating to the course based on evidence and clear analysis.</i>
	Real world problem-solving	<i>Ability to obtain relevant data, perform simple analyses and construct an argument for valid conclusions.</i>
	Group work	<i>Ability to coordinate effort in pairs or small groups and make an effective contribution.</i>
	Computing skills	<i>Ability to use data and spreadsheet software to compute valid results and presentable graphics.</i>
<b>Knowledge</b>	Statistical and Econometric Methodology	
	Historical and Global Context	
	Economic Policy and Regulation	

# 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.uoguelph.ca/economics/node/1115>
- <http://www.uoguelph.ca/registrar/calendars/undergraduate/current/c01/index.shtml>
- <http://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-amisconduct.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 re-written 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:

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Name and student ID (print):

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Date:

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