

NATURAL RESOURCE AND ENVIRONMENTAL ECONOMICS  
ECONOMICS EC2172A-001  
Department of Economics  
Western University

**September 2019**

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**Office Hours:** M 10:30-11:30, W 12:30-1:30, or any time my office door is open  
**Classroom meeting time(s) & location:** T 10:30-11:30, TH 10:30-12:30 SEB 2202  
**Course website:** <https://owl.uwo.ca/portal>  
**Undergraduate inquiries:** 519-661-3507 SSC Room 4075 or [econugrd@uwo.ca](mailto:econugrd@uwo.ca)

**Registration:**

You are responsible for ensuring you are registered in the correct courses. If you are not registered in this course, the Department will not release any of your marks until your registration is corrected. You may check your timetable by using the Login on the Student Services website at <https://student.uwo.ca>. If you notice a problem, please contact your home Faculty Academic Counsellor immediately.

**Prerequisite Note:**

The prerequisite(s) for this course is (are) **Economics 1021A/B and Economics 1022A/B, or Economics 2001A/B.**

You are responsible for ensuring that you have successfully completed all course prerequisites, and that you have not taken any anti-requisite courses. Lack of prerequisites may not be used as a basis for appeal. If you are found to be ineligible for a course, you may be removed from it at any time and you will receive no adjustment to your fees. This decision cannot be appealed.

If you find that you do not have the course prerequisites, it is in your best interest to drop the course well before the end of the add/drop period. Your prompt attention to this matter will not only help protect your academic record, but will ensure that spaces become available for students who require the course in question for graduation.

## **Course Objectives:**

Environmental economics is a valuable means of inquiring why people behave as they do toward the natural environment and how we might restructure the current system to rectify harmful practices. Its strength lies in the fact that it can help design effective environmental policies, get more environmental improvement from the resources we devote to these programs, and help us learn more about the levels of environmental damages and the values people put on improving the environment. The aim of this course is to present students with the types of problems environmental economists work on and some of the approaches they might take.

## **Course Learning Outcomes:**

Students will be able to apply economic reasoning and methods effectively to the study of environmental issues.

Students will be able to use economic theories of market inefficiency to explain environmental problems.

Students will be able to identify major current environmental problems and their economic components.

Students will be able to identify major current policies to remedy environmental problems.

Students will be able to apply the concept of trade-off to environmental policies.

Students will be able to use elementary cost-benefit analysis to measure the effectiveness of environmental policies.

Students will be able to evaluate the impact of environmental policies on individual and social welfare.

## **Textbook:**

Barry Field and Nancy Olewiler, *Environmental Economics*, 4th Canadian edition, McGraw-Hill Ryerson, 2015.

The textbook is also available on 2 hr reserve at D.B. Weldon Library.

## Grading:

Midterm*	Scheduled for Friday, November 1, 6:00-8:00pm	40%
Final Exam*	To be announced by the Registrar's Office	60%

\*The midterm and final exams are each 2 hours in length and in multiple choice formats. Questions will be a mix of theory questions (in multiple choice format), true and false statements (in multiple choice format), problems (in multiple choice format), and questions based on information presented in tables and/or graphs (in multiple choice format).

**Note: Computer marked multiple-choice tests and/or exams may be subject to submission for similarity review by software that will check for unusual coincidences in answer patterns that may indicate cheating.**

**Note: Use of electronic devices (cell phones, iPods, iPads, laptops, etc) and dictionaries are not allowed during exams; electronic devices caught in a student's possession or on will be taken as an attempt to cheat. Students are also banned from wearing or having on their desk any kind of wristwatch/timepiece during exams (time will be displaced on either a wall clock, board or projector). During exams students may use only a non-programmable/non-graphing calculator (but lids/covers must be removed).**

**Note: Students who miss an exam (and approved through academic counselling) will be required to write a makeup exam. Students must notify me no later than 24 hours after the end of the excused period, to arrange the writing of their makeup. Makeups will be in the same format as the regular scheduled exam.**

## Course Website

<http://owl.uwo.ca>: This site gives you access to lecture notes for theory, applications (in the form of additional topics of discussion) for real-life examples, homework questions for numerical practice, review questions to further help prepare you for exams, and announcements. Answers to homework and review questions are posted on the site, with the exception of the answers to homework questions that will be taken up in class – answers to these questions will only be available from class, so if you miss class on the day a one of these homework questions is taken up, it will be your responsibility to obtain notes from a fellow student. Applications (in the form of additional topics of discussion) for real-life examples will be taken up in class, so again, if you miss class on the day an application is taken up, it will be your responsibility to obtain notes from a fellow student. **NOTE: The lecture notes posted on the course website are supplementary material and should not be regarded as a substitute for lectures. There will be many additional topics covered in class that are NOT in the posted lecture notes. Students are reminded that class material (including posted lecture notes and additional topics) and homework and review questions will ALL be subject to examination.**

## **Course Outline**

### **1. Introductory**

What is Environmental Economics? Chapter 1

Linkages between the Economy and the Environment: A Taxonomy, Chapter 2

### **2. Basic Microeconomic Foundations of Environmental Economics**

Benefits and Costs, Supply and Demand, Chapter 3

Economic Efficiency and Markets, Chapter 4

The Economics of Environmental Quality, Chapter 5

### **3. Cost-Benefit Analysis**

Framework of Analysis, Chapter 6

Benefit-Cost Analysis: Benefits, Chapter 7

Benefit-Cost Analysis: Costs, Chapter 8

### **4. Environmental Policy Analysis**

Criteria for Evaluating Environmental Policies, Chapter 9

Liability Laws, Property Rights, Moral Suasion, Green Goods, Chapter 10

Standards, Chapter 11

Emission Taxes and Subsidies, Chapter 12

Transferable Discharge Permits, Chapter 13

Environmental Policies in Perspective, Chapter 14

### **5. Environmental Policy in Canada**

Environmental Policy in Canada: An Overview, Chapter 15

Water Pollution-Control Policy, Chapter 16

Air Pollution-Control Policy, Chapter 17

Policy on Toxic and Hazardous Substances, Chapter 18

Recycling, Solid Waste Disposal, and Land Use, Chapter 19

Global Environmental Problems, Chapter 20

## Please Note

### Department Policies for 2019-2020

Remember that the University expects all students to take responsibility for their own Academic Programs. Students should also check their registration to ensure they are enrolled in the correct courses.

1. Guidelines and policies for the Faculty of Social Science and the Department of Economics are posted online in the current Western Academic Calendar at:  
<http://westerncalendar.uwo.ca>.
2. Students must familiarize themselves with the “Rules of Conduct for Examinations”  
[http://www.uwo.ca/univsec/pdf/academic\\_policies/exam/administration.pdf](http://www.uwo.ca/univsec/pdf/academic_policies/exam/administration.pdf).
3. **Cheating as an academic offence:** Students are responsible for understanding what it means to “cheat”. The Department of Economics treats cheating incidents very seriously and will investigate any suspect behavior. Students found guilty will incur penalties that could include a failing grade or being barred from future registration in other Economics courses or programs. The University may impose further penalties such as a notation on an official academic transcript, suspension or expulsion.
4. **Plagiarism:** Students must write their essays and assignments in their own words. When taking an idea/passage from another author, it must be acknowledged with quotation marks where appropriate and referenced with footnotes or citations. Plagiarism is an academic offence (see Scholastic Discipline for Undergraduate Students in the Western Calendar at [http://westerncalendar.uwo.ca/PolicyPages.cfm?Command=showCategory&PolicyCategoryID=1&SelectedCalendar=Live&ArchiveID=#Page\\_20](http://westerncalendar.uwo.ca/PolicyPages.cfm?Command=showCategory&PolicyCategoryID=1&SelectedCalendar=Live&ArchiveID=#Page_20)).

Western University uses software to check for plagiarism and students may be required to electronically submit their work. Those found guilty will be penalized as noted in point 3.

5. It is a Department of Economics policy that **NO** assignments be dated, stamped or accepted by staff. Students must submit assignments in class or to the instructor during office hours.
6. When appealing a mark, students should refer to the Student Academic Appeals section in the current Western Academic Calendar at:  
[http://westerncalendar.uwo.ca/PolicyPages.cfm?Command=showCategory&PolicyCategoryID=1&SelectedCalendar=Live&ArchiveID=#Page\\_14](http://westerncalendar.uwo.ca/PolicyPages.cfm?Command=showCategory&PolicyCategoryID=1&SelectedCalendar=Live&ArchiveID=#Page_14)

Please note the relevant deadlines.

The Department will not consider an appeal unless an attempt has been made to settle the matter with the instructor first. Students who remain dissatisfied with the outcome may proceed with a written appeal (e-mails are not acceptable) to the Undergraduate Director in Economics, stating the reasons for their appeal. A checklist is provided at:  
[http://economics.uwo.ca/undergraduate/program\\_counselling/responsibilities\\_policies.html#appeals](http://economics.uwo.ca/undergraduate/program_counselling/responsibilities_policies.html#appeals).

7. Systematic adjustments of a class grade distribution (either up or down) can occur in Economics courses. The fact that grades have been adjusted is **not** grounds for an appeal.
8. Note the following add and drop deadlines:  

Deadline to <u>add</u> a first term half course:	<b>Friday September 13, 2019</b>
Deadline to <u>drop</u> a first term half course:	<b>Tuesday November 12, 2019</b>
9. Faculty of Social Science policy states that oversleeping or misreading an exam schedule is NOT grounds for a makeup. This rule applies to midterm and final exams in the Department of Economics.

### **Policy on Tests, Final Exams and on Missed Academic Responsibilities**

Students who proceed to write a test or examination must be prepared to accept the mark. Rewriting tests or examinations, or retroactive reweighting of marks, is **not** permitted. Students must book travel arrangements AFTER final exam dates have been posted; travel is not an acceptable excuse for absence from a final exam.

Students who are temporarily unable to meet academic requirements due to extenuating circumstances can follow Western University procedures to request academic consideration through the following routes:

- a) Submit a Self-Reported Absence form if the conditions for submission are met (e.g., only for exams or assessments worth 30% or less of the course mark; not applicable to final exams; maximum 2 self-reported absences per academic year; see [link](#) for full list of conditions and info).

If the conditions for submission of a Self-Reported Absence form are not met, then:

- b) For medical absences, submit a Student Medical Certificate (SMC) signed by a licensed medical or mental health practitioner along with a request for academic consideration to Academic Counselling in the student's home Faculty (see [link](#) for full info) ; or
- c) For non-medical absences (e.g., religious or compassionate), submit appropriate documentation to Academic Counselling in the student's home Faculty (see [link](#) for full info).

It is strongly recommended that students notify their instructors as soon as possible. University policy is that students **must** communicate with their instructors no later than **24 hours** after the end of the period covered by either the self-reported absence or SMC, or immediately upon their return following a documented absence. Failure to follow University policy and procedures may result in denial of academic accommodation and a grade of zero. Students should also set up an appointment to meet with their instructor as soon as possible. If the instructor is not available, send an email message, copying the Undergraduate Coordinator at [econugrd@uwo.ca](mailto:econugrd@uwo.ca).

Note: Academic consideration is not normally intended for long-term, recurring absences, an existing disability, or high levels of stress related to academic performance. In such cases, students should consult their academic counsellor. See [link](#) for full information. In all cases, if the documentation submitted to request academic consideration is not acceptable, students will receive a grade of zero for the missed test, exam, or assignment.

**For full information about Western University's policies and procedures for student absences and requests for academic consideration, please visit this [link](#).**

### **Policies Regarding Academic Accommodation**

The Faculty of Social Science's policies regarding academic accommodation is found at [http://counselling.ssc.uwo.ca/procedures/having\\_problems/index.html](http://counselling.ssc.uwo.ca/procedures/having_problems/index.html).

"Academic Rights and Responsibilities" are also outlined in the Western Calendar at <http://westerncalendar.uwo.ca/PolicyPages.cfm?PolicyCategoryID=1&command=showCategory&SelectedCalendar=Live&ArchiveID=>. Claiming that "you didn't know what to do" is not an acceptable excuse for not following the stated procedures.

### **Policy Regarding Class Attendance**

If the instructor deems a student's class attendance as unsatisfactory, that student may be prohibited from writing the final examination. If there is intent to make use of this University policy, the student will be notified in writing.

### **Statement on Mental Health and Support Services**

Students under emotional/mental distress should visit [http://uwo.ca/health/mental\\_wellbeing/](http://uwo.ca/health/mental_wellbeing/) for more information and a complete list of resources on how to obtain help.