

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

September 2020

Instructor: Irene Trela

Virtual Office Hours (weekdays 8am-8pm Eastern Time):

Via e-mail: use your uwo e-mail to e-mail me at itrela@uwo.ca (you should typically expect a reply within 24 hours, except weekends and holidays)

Via Zoom: A student can request a zoom meeting by emailing me using their uwo e-mail and requesting a day/time in the Eastern Time Zone; I will then set up a Zoom meeting for that individual student

Course website: <https://owl.uwo.ca/portal>

Undergraduate inquiries: 519-661-3507 SSC Room 4075 or 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 C. Field and Martha K. Field, *Environmental Economics: An Introduction*, 8th edition, McGraw-Hill Ryerson, 2021.

Assessments and Grading:

Midterm Exam* worth 40% of your grade

This exam will be administered online on OWL. It will be scheduled by the Registrar's Office, and is tentatively set for Nov 1, 5:00PM (Eastern Time), but subject to change. Students will be notified once officially scheduled. It will be a 2.5 hour exam, tentatively covering Chpts. 1-8.

Final Exam* worth 60% of your grade

- This exam will be administered online on OWL. The due date of this 2.5 hour exam will be announced by the Registrar's Office. The final exam will be cumulative.

*The midterm and final exams will be open-book and in mixed format that may contain some or all of the following types of questions:

- True/False Questions
- True/False 'Grouped' questions
- Fill-in-the-blank Questions
- Fill-in-the-blank 'Grouped' Questions
- Multiple Choice Questions

'Grouped' questions are a series of questions pertaining to a diagram or word statement.

Policy Regarding Missed Assessments:

Students **must** follow Western University's procedures for approval of their absence from any exam in order to receive an accommodation. Please see the **Please Note Department Policies for 2020-2021** section of this syllabus for details on these procedures. If during the Fall 2020 term Western University announces any changes to these procedures, please follow those procedures.

STUDENTS WHO MISS ANY EXAM MUST ALSO E-MAIL ME OF THEIR ABSENCE FROM THE EXAM AT LEAST 1 HOUR PRIOR TO THE COMMENCEMENT OF THE EXAM.

Students with an approved absence from the original scheduled midterm exam AND who e-mailed me at least 1 hour prior to the commencement of the original scheduled midterm exam will have the choice to write a makeup exam or have the weight of the midterm transferred to the final exam. The midterm makeup exam may be zoom-proctored and have a different format than the original scheduled midterm exam.

Students with an approved absence from the original scheduled midterm exam but who neglected to e-mail me of their absence from the original scheduled exam at least 1 HOUR PRIOR to the commencement of the original scheduled exam will have the weight of the midterm transferred to the final exam.

Students with an approved absence from the original scheduled final exam AND who e-mailed me at least 1 hour prior to the commencement of the original scheduled final exam will be required to write a final makeup exam that may be zoom-proctored and have a different format than the original scheduled final exam. Students with an approved absence from the original scheduled final exam but who neglected to e-mail me of their absence at least 1 HOUR PRIOR to the commencement of the original scheduled final exam, will need to contact me for additional steps.

Online Proctoring Notice:

Makeup exams in this course may be conducted using Zoom. If so, you will be required to keep your camera on for the entire session, hold up your student card for identification purposes, and share your screen with the invigilator if asked to do so at any time during the exam. The exam session will not be recorded.

More information about the use of Zoom for exam invigilation is available in the Online Proctoring Guidelines at the following link:

<https://www.uwo.ca/univsec/pdf/onlineproctorguidelines.pdf>.

Completion of this course will require you to have a reliable internet connection and a device that meets the system requirements for Zoom. Information about the system requirements are available at the following link: <https://support.zoom.us/hc/en-us>

Please note that Zoom servers are located outside Canada. If you would prefer to use only your first name or a nickname to login to Zoom, please discuss this with your instructor in advance of the test or examination.

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, additional sample questions to further help prepare you for exams, and announcements. Answers to homework and additional sample questions are posted on OWL. **Students are reminded that posted lecture notes, additional topics of discussion, homework and additional sample questions will ALL be subject to examination.**

Course Outline

Do not read the textbook cover-to-cover as not all the material in the textbook will be covered in the course. Use the textbook as a cross-reference to what is posted in your lecture notes and in the additional topics of discussion; in other words, refer to the textbook only for *further clarification* on subject matters/topics that are posted on OWL. You will not be responsible/tested on material in the textbook that is not posted on OWL.

1. Introduction

What is Environmental Economics? Chapter 1
The Economy and the Environment, Chapter 2

2. Analytical Tools

Benefits and Costs, Supply and Demand, Chapter 3
Markets, Externalities, and Public Goods, 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
 - Decentralized Policies: Liability Laws, Property Rights, Voluntary Action, Chapter 10
 - Command-and-Control Strategies: Standards, Chapter 11
 - Incentive-Based Strategies: Environmental Charges and Subsidies, Chapter 12
 - Incentive-Based Strategies: Market Trading Systems, Chapter 13

5. Environmental Policy in Canada and Global Environmental Issues (we may not be covering these chapters in their entirety; details of what will be covered will be announced later)
 - Federal, provincial and local Environmental Issues in Canada, weakly referencing textbook Chapters 15-18 (which relate to the US)
 - International Environmental Agreements, Chapter

How to do well in the course:

1. Start each week by reading the course notes provided to you (including notes on the additional topics of discussion). Refer to the textbook for further clarification on subject matters/topics that are in your notes.
2. Work the questions in your notes as well as the homework questions and additional sample questions. These questions will not be graded but are vital in doing well in the course. So why the importance of working questions? Because economics requires active learning. The midterm and final exams will test students not on their ability to memorize the course material but rather on their ability to understand and use logical step-by-step reasoning to arrive at answers. Passively reading your notes and textbook rarely results in a passing grade.
3. If you have any questions, post them in the online Forum. Your classmates will be happy to discuss your questions with you, which will also be monitored by myself to address unanswered questions or, if necessary, to correct answers provided by other students.
4. Remember you can always email me if you require additional assistance or if there are personal matters you wish to discuss. I monitor my email account closely every weekday, and you should typically expect a reply within 24 hours, excluding weekends and holidays.

Copyright:

Course materials are protected by copyright. Students may take notes and make copies of course materials for their own educational purposes. Students may not reproduce (or allow others to reproduce), post or distribute lecture notes and other course materials publicly and/or for commercial purposes without written consent.

Statement on Recording of Remote Learning Sessions:

Some/All of the remote learning sessions for this course will be recorded. The data captured during these recordings may include your image, voice recordings, chat logs and personal identifiers (name displayed on the screen). The recordings will be used for educational purposes related to this course, including evaluations. The recordings may be disclosed to

other individuals under special circumstances. Please contact the instructor if you have any concerns related to session recordings. Participants in this course are not permitted to record the sessions, except where recording is an approved accommodation, or the participant has the prior written permission of the instructor.

Online Etiquette:

Some components of this course may involve online interactions (typically through one-on-one zoom office hours, but can potentially involve a group of students). To ensure the best experience, please honour the following rules of etiquette:

- please “arrive” to the meeting on time
- please use your computer and/or laptop if possible (as opposed to a cell phone or tablet)
- ensure that you are in a private location to protect the confidentiality of discussions in the event that a discussion deals with sensitive or personal material
- [for group meetings] to minimize background noise, kindly mute your microphone for the entire meeting until you are invited to speak, unless directed otherwise
- [for group meetings larger than 30 students] In order to give us optimum bandwidth and web quality, please turn off your video camera for the entire meeting unless you are invited to speak
- [suggested for cases where video is used] please be prepared to turn your video camera off at the instructor’s request if the internet connection becomes unstable
- unless invited by your instructor, do not share your screen in the meeting

The course instructor will act as moderator for the meeting and will deal with any questions from participants. To participate please consider the following:

- if you wish to speak, use the “raise hand” function and wait for the instructor to acknowledge you before beginning your comment or question
- remember to unmute your microphone and turn on your video camera before speaking
- self-identify when speaking.
- remember to mute your mic and turn off your video camera after speaking (unless directed otherwise)

General considerations of “netiquette”:

- Keep in mind the different cultural and linguistic backgrounds of the students in the course.
- Be courteous toward the instructor, your colleagues, and authors whose work you are discussing.
- Be respectful of the diversity of viewpoints that you will encounter in the class and in your readings. The exchange of diverse ideas and opinions is part of the scholarly environment. “Flaming” is never appropriate.
- Be professional and scholarly in all online postings. Cite the ideas of others appropriately. Note that disruptive behaviour of any type during online classes, including inappropriate use of the chat function, is unacceptable. Students found guilty of Zoom-bombing a class or of other serious online offenses may be subject to disciplinary measures under the Code of Student Conduct.

Please Note
Department & University Policies for 2020-2021

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

Academic Rights and Responsibilities: Students should be familiar with their “Academic Rights and Responsibilities” as outlined [here](#) in the Western Academic Calendar. Claiming that “you didn’t know what to do” is not an acceptable excuse for not following the stated procedures.

Guidelines and Policies for Students are posted online in the current Western Academic Calendar at <http://westerncalendar.uwo.ca>. Undergraduate information for the Faculty of Social Science can be found at: <https://www.ssc.uwo.ca/undergraduate/index.html> and for the Department of Economics at: <https://economics.uwo.ca/undergraduate/index.html>.

Rules of Conduct for Examinations: Students are expected to know the university’s Rules of Conduct for Examinations, available [here](#).

Cheating and Academic Offences: Students are responsible for understanding what it means to “cheat.” The Department of Economics treats cheating and other academic offences 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 Economics courses or programs. The University may impose further penalties such as suspension or expulsion.

Plagiarism: Plagiarism is an academic offence. Students must write their essays and assignments in their own words. Ideas/passages taken from another author must be referenced with footnotes or citations and acknowledged with quotation marks where appropriate. 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. See Scholastic Discipline for Undergraduate Students [here](#) in the Western Academic Calendar.

Academic Appeals: Students should refer to the Student Academic Appeals section [here](#) in the Western Academic Calendar. Please note the relevant deadlines.

Department Appeals Procedures: 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 submit a written appeal to the Undergraduate Director in Economics, stating the reasons for their appeal. Information on the Department of Economics’ appeals procedure and the appeals form are available [here](#).

Systematic Adjustments: Systematic adjustments of class grade distributions (either up or down) can occur in Economics courses. The systematic adjustment of a class grade distribution is **not** grounds for an appeal.

Add/drop deadlines:

Deadline to add a first term half course:

Thursday September 17, 2020

Deadline to drop a first term half course:

Thursday November 12, 2020

Oversleeping or Misreading the Exam Schedule: Faculty of Social Science policy states that oversleeping or misreading the exam schedule is NOT grounds for a makeup. This rule applies to all exams in the Department of Economics.

End of Term Travel: Students must book travel arrangements AFTER final exam dates have been posted; travel is not an acceptable excuse for absence from a final exam.

Rewriting Exams and Retroactive Reweighting are NOT Permitted: 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.

Accommodation Policies: Students with disabilities should work with Accessible Education (formerly SSD), which provides recommendations for accommodation based on medical documentation or psychological and cognitive testing. The accommodation policy can be found here: [Academic Accommodation for Students with Disabilities](#).

Academic Consideration for Student Absence: Students will have up to two (2) opportunities during the regular academic year to use an on-line portal to self-report an absence during the term, provided the following conditions are met: the absence is no more than 48 hours in duration, and the assessment for which consideration is being sought is worth 30% or less of the student's final grade. Students are expected to contact their instructors within 24 hours of the end of the period of the self-reported absence, unless noted on the syllabus. Students are not able to use the self-reporting option in the following circumstances:

- for exams scheduled by the Office of the Registrar (e.g., December and April exams)
- absence of a duration greater than 48 hours
- assessments worth more than 30% of the student's final grade
- if a student has already used the self-reporting portal twice during the academic year

If the conditions for a Self-Reported Absence are *not* met, students will need to provide a Student Medical Certificate if the absence is medical or provide appropriate documentation if there are compassionate grounds for the absence in question. Students are encouraged to contact their Faculty academic counselling office for more information about the relevant documentation. It is strongly recommended that students notify the instructor as soon as possible, ideally before the assessment, when they become aware of an absence. University policy is that students must communicate with their instructors no later than 24 hours after the end of the period covered by the SMC or immediately upon their return from their documented absence. Failure to follow University policy and procedures may result in denial of academic accommodation and a grade of zero.

Individual instructors are not permitted to receive documentation directly from a student, whether in support of an application for consideration on medical grounds or for other reasons. **All required documentation for absences that are not covered by the Self-Reported Absence Policy must be submitted to the Academic Counselling office of a student's Home Faculty.**

For Western University policy on Consideration for Student Absence, see:
[Policy on Academic Consideration for Student Absences - Undergraduate Students in First Entry Programs.](#)

For the Student Medical Certificate (SMC), see:
http://www.uwo.ca/univsec/pdf/academic_policies/appeals/medicalform.pdf.

Religious Accommodation: Students should consult the University's list of recognized religious holidays and should give reasonable notice in writing, prior to the holiday, to the Instructor and an Academic Counsellor if their course requirements will be affected by a religious observance. Additional information is given in the [Western Multicultural Calendar](#).

Policy Regarding Class Attendance and Engagement: If the instructor deems a student's attendance or engagement in the class to be unsatisfactory, that student may be prohibited from writing the final examination. Examples of unsatisfactory class engagement include frequent absences from an in-person or synchronous online class, lack of assignment submissions, and inadequate use of online course materials. Instructors who intend to make use of this policy will notify the student in advance.

Statement on Mental Health and Support Services: Students under emotional/mental distress should visit http://uwo.ca/health/mental_wellbeing/ for more information and a complete list of resources on how to obtain help.