

# Department of Economics Faculty of Arts

## Economics 487(L01) Environmental Economics

Instructor: M. Scott Taylor

Phone: 403-220-8912

Lecture Location: ZOOM Delivery
Lecture Days/Time: TR 12:30-13:45

Email: mstaylor@ucalgary.ca

Office: ZOOM Delivery

Office hours: TR 16:00-17:00 (https://ucalgary.zoom.us/my/mstaylor) Fall 2020

## **Course Description:**

This course provides an introduction to environmental economics. It is typical in that we will use mostly microeconomic theory to discuss the nature of externalities, their implications, and the relevance of government policy in addressing environmental issues. It is atypical in that after a review of basic theory, we will study in depth a key set of four environmental topics. As you are undoubtedly aware, there are many pressing environmental issues in the world today. Some are local in nature, for example the issue of orphan wells in Alberta, others are purely national such as species preservation, while others are international - climate change. The field of environmental economics is very broad, and we will make use of tools from both macro and microeconomics as well as discuss empirical work often. I will draw from your previous knowledge in all of these fields.

## **Course Objectives/Learning Outcomes:**

By the end of this course the student will have a very good understanding of basic environmental economics. They will understand the positive and normative implications of externalities and understand the incentives governments have to intervene in markets to address these market failures. They will understand the uses of various types of environmental policies and their limitations. They will also understand how economic growth and international trade can affect environmental outcomes and appreciate some of the difficulties in designing policy to address species loss and climate change.

## **Course Outline:**

I have organized the material around four very topical policy issues. There are 25 lectures in total during the course. I plan on spending the first four lectures reviewing microeconomic and macro theory as well as some basics of statistical analysis. One lecture will be taken up by the midterm, and the remaining twenty will be divided evenly across the four key questions we discuss. This gives us about 5 lectures per study area. I am hoping to stick to this plan for each topic, but it is possible we either run out of time or world events intervene making us spend more time on one topic than another.

Each of the four sections or modules will proceed in much the same way, and there are common elements to each section.

First, there will be a video from YouTube (or similar) introducing the issue (typically courtesy of an environmental group or government agency), together perhaps with some discussion by others (perhaps a clip from the PBS news hour).

Second, there is the lecture material I will provide that gives us the logical framework with which we can discuss the issue. This material will be presented in slides over Zoom. You will be responsible not only for the lecture material presented in class, but also for the additional readings I will assign in class.

Third, environmental policy discussions are often full of all kinds of minutiae and detail that I am not an expert on. To fill this gap, I will sometimes ask you to listen to podcasts. I will hopefully be able to find short (less than 20 minute) informative, and very detailed discussions of environmental policy issues.

Fourth, with the completion of every section there will be an assignment for you to do that will reinforce the material and hopefully prepare you for the examinations.

The four modules are, in brief, organized around the following policy issues:

- 1. Economic Growth and the Environment: Is economic growth sustainable in the long run? What does sustainability mean? How do population pressures and resource use affect the sustainability of economic growth?
- 2. Deforestation: What drives deforestation worldwide? Is it poverty, over population, international trade or corruption? How do economists think about deforestation and what is the state of the art in terms of our understanding of the drivers?
- 3. Trade vs the environment: Is liberalized trade good or bad for the environment? Do differences in environmental regulation drive firms to pollution havens? What role should trade policy play in environmental discussions?
- 4. Species extinction and conservation: what is the role of environmental policy in species preservation? Is the market economy driving species to extinction? Has it done so in the past? What if anything should be done to preserve biodiversity? How do we value biodiversity?

## Prerequisites/corequisites:

ECON 357, 359, and 395.

## **Required Textbook(s):**

There is no required textbook but I will assign readings for each section. We will discuss some of the readings in class, but you are expected to read and study them independently.

## Recommended Textbook(s):

None

## **Books on Reserve:**

None

## **Online Delivery:**

This course will be delivered online. Students are expected to be able to participate online in accordance with this Course Outline. Lectures, assignments, office hours, exams, readings and other course material, etc. all require online access and this access is the responsibility of the student.

In order to remotely participate in online courses, students will need to have: computer with a current and updated operating system (macOS or Windows will work with all university-supported online learning technologies), a current and updated web browser installed – the latest versions of Firefox, Safari, Chrome or Edge will help to avoid compatibility issues, secure and reliable internet, microphone / headphones, webcam (optional), scanner (or camera to scan your work).

### Desire2Learn:

This course will make use of the Desire2Learn (D2L) platform. Students who are registered in the course can log on at http://d2l.ucalgary.ca through their student centre. Please note that D2L features a class email list that may be used to distribute course-related information. These e-mails go to your University of Calgary e-mail addresses only.

#### Lectures:

Lectures will be delivered online at the Registrar scheduled times and delivered using ZOOM. The streaming interactive learning sessions will not be recorded, but slides from the lectures will subsequently posted to D2L for students whose Internet access may be disrupted during the interactive Zoom sessions.

#### **Grade Determination and Final Examination Details:**

There will be two examinations. One will be a typical midterm, and the other is a final exam scheduled by the Registrar. The midterm will be on Thursday the 22nd of October. The midterm exam will be take-home format. The exam will be available on D2L. Students will download the exam from D2L, complete the exam, scan it, and submit using Dropbox in D2L. The exam is intended to be completed in 75 minutes. The exam will contain both analytical problem-solving questions and an essay question. The analytical questions require you to manipulate and make use of economic modelling in a precise and mathematical way. The essay question will feature an introductory prompt I provide and require you to write a cohesive essay responding to the prompt. The essay must be a proper essay — no point form, logically written, and must make use of the materials learnt in the course. An essay is not an opinion piece, it is a logical argument and a good essay is no less precise in its construction than is an answer to a purely analytical question. The essay component and analytical components will each be worth 50% of the grade in any exam (including the final), so essay writing and analytical skills will both be required to do well in the course.

In addition, there will be a series of assignments due during the year. I plan on five assignments. These assignments will have due dates (approximately 10 days from receiving them) and will be marked and returned to the students. Answer keys for the assignments will be provided.

#### **Grade Determination and Final Examination Details:**

MIDTERM EXAM	30%
FINAL EXAMINATION	40%
ASSIGNMENTS	30%
	100%

The official grading system will be used. See <a href="http://www.ucalgary.ca/pubs/calendar/current/f-1-1.html">http://www.ucalgary.ca/pubs/calendar/current/f-1-1.html</a>.

Students must receive a passing grade on the final exam to pass the course.

If a student's letter grade on the final exam exceeds their midterm(s) letter grade, the weight of the midterm(s) may be transferred to the final exam at the discretion of the instructor. The student must have written the midterm(s) or provided supporting documentation for the absence(s) such as a medical note or statutory declaration.

As per the Writing Across the Curriculum Statement in the Calendar, writing and grading thereof will be a factor in the evaluation of student work. See <a href="https://www.ucalgary.ca/pubs/calendar/current/e-2.html">https://www.ucalgary.ca/pubs/calendar/current/e-2.html</a>.

Course material dealing with a particular assignment will typically be covered in class at least 7 days before the assignment is due; thus, assignments can be completed at any time up to and including the due date. Given these factors, only situations where someone can document illness or domestic affliction for an extended period (i.e., the entire 7 days prior to the due date) would possibly warrant shifting the assignment weight to the final exam. Furthermore, technical problems can be expected to occur with computer systems (and internet availability) so it may be a good idea to not wait until the last minute to submit your assignment.

The midterm exam(s) is take-home exam(s) designed and intended to be completed in 75 minutes. The exam(s) will be OPEN book. The exam(s) will be available on D2L. Student will download the exam from D2L, complete the exam, scan it, and submit using Dropbox in D2L. Student will have a 50%-time extension to complete the exam, at a time of your choosing, within a 24-hour period determined by the instructor.

The final examination will be take-home, comprehensive, and scheduled by the Registrar. Students will download the exam from D2L, complete the exam, scan it, and submit using Dropbox in D2L. Student will have 50% more time to complete the exam, at a time of their choosing, within the 24-hour period that begins 24 hours before the end date of the Registrar's scheduled final exam for this course. The exam is designed and intended to be completed in two hours. The exam will be OPEN book.

If a student cannot write their final exam on the date assigned by the Registrar's Office, they need to apply for a deferred exam <a href="https://www.ucalgary.ca/pubs/calendar/current/g-6.html">https://www.ucalgary.ca/pubs/calendar/current/g-6.html</a>. Under no circumstance will this be accommodated by the Department.

As per the Writing Across the Curriculum Statement in the Calendar, writing and grading thereof will be a factor in the evaluation of student work.

All other course components will also be accessed, submitted, and returned through D2L.

Non-programmable calculators WILL be allowed during the writing of tests or final examinations.

Tests and exams WILL NOT involve multiple choice questions.

THERE WILL BE NO MAKEUP OR DEFERRED QUIZZES/TESTS/EXAMS under any circumstances, nor may the quizzes/tests/exams be written early. Students unable to write the quizzes/tests/exams because of documented illness, family emergency, religious observance, or university-sanctioned event will have the weight shifted to the remaining exams; otherwise a grade of zero will be assigned. Documentation MUST be provided.

## Reappraisal of Grades and Intellectual Honesty:

For reappraisal of graded term work, see Calendar I.2 <a href="http://www.ucalgary.ca/pubs/calendar/current/i-2.html">http://www.ucalgary.ca/pubs/calendar/current/i-2.html</a>

For reappraisal of final grade, see Calendar I.3 http://www.ucalgary.ca/pubs/calendar/current/i-3.html

### **Academic Misconduct**

Academic Misconduct refers to student behavior that compromises proper assessment of students' academic activities and includes: cheating; fabrication; falsification; plagiarism; unauthorized assistance; failure to comply with an instructor's expectations regarding conduct required of students completing academic assessments in their courses; and failure to comply with exam regulations applied by the Registrar.

Student committing academic misconduct during the final exam will not receive a passing grade on the course.

For information on the Student Academic Misconduct Policy and Procedure please visit:

https://ucalgary.ca/policies/files/policies/student-academic-misconduct-policy.pdf

https://ucalgary.ca/policies/files/policies/student-academic-misconduct-procedure.pdf

Additional information is available on the Academic Integrity Website at <a href="https://ucalgary.ca/student-services/student-success/learning/academic-integrity">https://ucalgary.ca/student-services/student-success/learning/academic-integrity</a>.

## **Academic Accommodations:**

Students seeking an accommodation based on disability or medical concerns should contact Student Accessibility Services. SAS will process the request and issue letters of accommodation to instructors. Students who require an accommodation in relation to their coursework based on a protected ground other than disability should communicate this need in writing to their Instructor. The full policy on Student Accommodations is available at <a href="http://www.ucalgary.ca/policies/files/policies/student-accommodation-policy.pdf">http://www.ucalgary.ca/policies/files/policies/student-accommodation-policy.pdf</a>.

#### Freedom of Information and Protection of Privacy (FOIP) Act:

Personal information is collected in accordance with FOIP. Assignments can only be returned to the student and will be accessible only to authorized faculty and staff. For more information, see <a href="http://www.ucalgary.ca/legalservices/files/legalservices/faq-students.pdf">http://www.ucalgary.ca/legalservices/files/legalservices/faq-students.pdf</a> and <a href="http://www.ucalgary.ca/legalservices/files/legalservices/faq-faculty-0.pdf">http://www.ucalgary.ca/legalservices/files/legalservices/faq-faculty-0.pdf</a>.

## **Copyright Legislation:**

See the University of Calgary policy on Acceptable Use of Material Protected by Copyright at <a href="https://www.ucalgary.ca/policies/files/policies/acceptable-use-of-material-protected-by-copyright-policy.pdf">https://www.ucalgary.ca/policies/files/policies/acceptable-use-of-material-protected-by-copyright-policy.pdf</a>. Students who use material protected by copyright in violation of this policy may be disciplined under the Non-Academic Misconduct Policy.

Course materials created by instructors (including presentations and posted notes, labs, case studies, assignments and exams) remain the intellectual property of the instructor. These materials may NOT be reproduced, redistributed or copied without the explicit consent of the instructor. The posting of course

materials to third party websites such as note-sharing sites without permission is prohibited. Sharing of extracts of these course materials with other students enrolled in the course at the same time may be allowed under fair dealing.

## **Recording of Lectures:**

Recording of lectures is prohibited, except for audio recordings authorized as an accommodation by SAS or an audio recording for individual private study and only with the written permission of the instructor. Any unauthorized electronic or mechanical recording of lectures, their transcription, copying, or distribution, constitutes academic misconduct. See <a href="https://www.ucalgary.ca/pubs/calendar/current/e-6.html">https://www.ucalgary.ca/pubs/calendar/current/e-6.html</a>.

## **Important Dates:**

Please check: http://www.ucalgary.ca/pubs/calendar/current/academic-schedule.html

## **Student Organizations:**

Faculty of Arts Students' Association (F.A.S.A.):

**Economics Department Representative** 

Office: SS 803, E-mail: <a href="mailto:econrep@fasaucalgary.ca">econrep@fasaucalgary.ca</a> and Web: <a href="mailto:www.fasaucalgary.ca">www.fasaucalgary.ca</a>.

## Society of Undergraduates in Economics:

https://www.ucalgarysue.com/.

Society of Undergraduates in Economics is a student run organization whose main purpose is to assist undergraduate economics students to succeed both academically and socially at the University of Calgary. Services include access to the exam bank, career partnerships with the Career Centre through hosting industry nights and information sessions, recognizing achievements in teaching, and organizing social events for members. They invite you to join by contacting SUE at societyofundergradsineconomics@gmail.com.

## **Faculty of Arts Program Advising and Student Information Resources:**

- Have a question, but not sure where to start? The Arts Students' Centre is your information
  resource for everything in Arts! Drop in at SS102, call them at 403-220-3580 or email them at
  artsads@ucalgary.ca. You can also visit the Faculty of Arts website at
  <a href="http://arts.ucalgary.ca/undergraduate">http://arts.ucalgary.ca/undergraduate</a> which has detailed information on common academic
  concerns, including program planning and advice.
- For registration (add/drop/swap), paying fees and assistance with your Student Centre, contact Enrolment Services at 403-210-ROCK [7625] or visit them in the MacKimmie Library Block.
- Online writing resources are available at http://www.ucalgary.ca/ssc/resources/writing-support.

## **Student Support and Resources:**

- See <a href="https://www.ucalgary.ca/registrar/registration/course-outlines">https://www.ucalgary.ca/registrar/registration/course-outlines</a> for information on campus mental health resources, the Student Ombuds' Office, Student Success Centre, Safewalk, and Emergency Evacuation and Assembly.
- Online writing resources are available at <a href="https://ucalgary.ca/student-services/student-success/writing-support">https://ucalgary.ca/student-services/student-success/writing-support</a>.

## Notes:

1. Students are responsible for all assigned material, e.g., supplementary material posted on D2L, regardless of whether or not the material was covered in class.

MST 2020-08-13