Economics 677 Environmental Economics

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<tr>
<th>Instructor: Erica Myers</th>
<th>Lecture Location: SS 423</th>
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<tbody>
<tr>
<td>Email: <a href="mailto:erica.myers@ucalgary.ca">erica.myers@ucalgary.ca</a></td>
<td>Lecture Days/Time: TR 12:30-1:45</td>
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<tr>
<td>Office: SS 414</td>
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<td>Office Hours: Thursday 2-3 pm</td>
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**Course Description:**
This course provides an introduction to environmental economics at the graduate level. The first part of the course will focus on environmental policy. We will use microeconomic theory to discuss the nature of externalities, their implications, and the relevance of government policy in addressing environmental issues. In the second part of the course, we will turn our attention to methods that have been developed to estimate the damage and cost functions needed to implement policy. Each part of the course represents two sides of the same coin. Policy design involves using neoclassical welfare theory to derive optimal policy rules while valuation.

**Course Outcomes:**
By the end of this course the student will have a good understanding of graduate environmental economics and some knowledge of where the research frontier is on the topics covered. 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 be familiar with and able to perform environmental valuation techniques such as property value, recreation, mortality risk, and stated preference.

**Course Outline: Topics covered will include**

**Part 1: The Design of Environmental Policy**
- Theory of Externalities
- Environmental Policy Instruments
- Imperfect Information
- Competitive vs. Non-Competitive Output Markets
- Institutional Issues in Cap-and-Trade Programs
- Liability

**Part 2:**
- Applied Welfare Analysis
- Revealed Preference Models
- Discrete Choice Analysis
- Recreation Demand Valuation
- Property Market Valuation
- Mortality Risk Valuation
- Stated Preference Approaches
Prerequisites/corequisites:
Admission to the MA or PhD Economics Program.

Required Textbook(s):

Books on Reserve:
None

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 e-mail list that may be used to distribute course-related information. These e-mails go to your University of Calgary e-mail addresses only.

Grade Determination/Assessment:
Grades will be determined by performance on six problem sets, an end-of-term policy brief, and class attendance and participation as follows. For the policy brief, students will be required to describe a current energy-related policy problem, analyzing the economic drivers, regulatory and environmental issues, evaluate various policy solutions, and make recommendations. The details for the assignment is available on D2L. I will suggest several current policy problems for the brief, but students may choose their own topic subject to my approval. Students may meet with me during office hours for help developing the policy brief over the course of the semester.

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<th>Component</th>
<th>Percentage</th>
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<tr>
<td>Problem Sets</td>
<td>55%</td>
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<tr>
<td>Policy Brief</td>
<td>30%</td>
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<tr>
<td>Class Participation</td>
<td>15%</td>
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100%

Grade Determination and Final Examination Details
Department of Economics Criteria for Letter Grades. Economics professors use the following criteria when assigning letter grades:

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<tr>
<th>Grade</th>
<th>Grade Point Value</th>
<th>Description</th>
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<tbody>
<tr>
<td>A+</td>
<td>4.00</td>
<td>Outstanding</td>
</tr>
<tr>
<td>A</td>
<td>4.00</td>
<td>Excellent-superior performance, showing-comprehensive understanding of subject matter</td>
</tr>
<tr>
<td>A-</td>
<td>3.70</td>
<td>Very good performance</td>
</tr>
<tr>
<td>B+</td>
<td>3.30</td>
<td>Good performance</td>
</tr>
<tr>
<td>B</td>
<td>3.00</td>
<td>Satisfactory performance</td>
</tr>
<tr>
<td>B-</td>
<td>2.70</td>
<td>Minimum pass for students in the Faculty of Graduate Studies</td>
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<tr>
<td>C+</td>
<td>2.30</td>
<td>All grades below “B-” are indicative of failure at the graduate level and cannot be counted toward Faculty of Graduate Studies course requirements. Individual programs may require a higher passing grade.</td>
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A passing grade on any particular problem set or other component of the course is not required for a student to pass the course as a whole. Class participation will be determined based on engagement with in class exercises.

Bi-weekly problem sets will be due every other Friday at 5 pm. Each of the problem sets will carry equal weight in grade determination. Late problem sets will not be accepted. Students unable to turn in an assignment because of documented illness or family emergency will have the weight shifted to the remaining problem sets; otherwise a grade of zero will be assigned. You may (and are encouraged!) to work together on the problem sets. However, each student is required to turn in their own solutions (and code where relevant) described in their own words.

Reappraisal of Grades:
For Reappraisal of Graded Term Work, see Calendar I.2
http://www.ucalgary.ca/pubs/calendar/current/i-2.html

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 for the course.

For information on the Student Academic Misconduct Policy, Procedure and Academic Integrity, please visit: https://www.ucalgary.ca/pubs/calendar/current/k-3.html

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 https://www.ucalgary.ca/legal-services/university-policies-procedures/accommodation-students-disabilities-procedure

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 https://www.ucalgary.ca/legal-services/access-information-privacy

Copyright Legislation:
See the University of Calgary policy on Acceptable Use of Material Protected by Copyright at
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 https://www.ucalgary.ca/pubs/calendar/current/e-6.html.

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

Student Organizations:
Faculty of Grad Studies website: https://grad.ucalgary.ca/

Graduate Students Association: http://gsa.ucalgary.ca/

Professional Development for Grad Students
Workshops and resources can be found at http://www.ucalgary.ca/mygradskills/

Economics Graduate Association: http://econ.ucalgary.ca/ega/

Student Support and Resources:
• See https://www.ucalgary.ca/registrar/registration/course-outlines 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 https://ucalgary.ca/student-services/student-success/writing-support.
• 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 Tower.

Notes:
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.

ECM
2022-08-04