DALHOUSIE UNIVERSITY

Environmental Economics ECON 5517B
Course Outline

Winter 2023

Professor: Peter Burton peter.burton@dal.ca

Lectures: Tuesday, Thursday 0835-0955 McCain 2016

Office Hours: Monday 0830-1000
Tuesday 1000-1130
A11 6206 University Ave

Course Description

This course is designed as an introduction to the theory and application of environmental economics. It includes the theoretical analysis of
1) interpersonal and intertemporal decision-making criteria;
2) public goods and externalities (such as pollution) and the advantages/disadvantages of regulatory mechanisms;
3) valuation of environmental benefits or damages (e.g., compensating and equivalent variations);
4) preference revelation (e.g., surveys, hedonic pricing, and travel-cost methods); and
5) anthropocentric valuation of the environment (e.g., existence value, access value, option value and quasi-option value) and the possibility of nonanthropocentric decision making.

Empirical analyses will be discussed where the above approaches have been implemented.

FORMAT: Lecture, 3 hours per week

Course Prerequisites

ECON 5000.03 or ECON 5509.03 or ECON 6609.03

Course Objectives/Learning Outcomes

Students should have a basic understanding of modern environmental economics and be able to access much of the current literature

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Course Materials

Readings will also be assigned from current economic literature.
Supplemental material may be posted on Brightspace

Useful References

Johansson, P.O. (1987), The Economic Theory and Measurement of Environmental Benefits, Cambridge: Cambridge University Press

Johansson, P.O. (1993), Cost Benefit Analysis of Environmental Change, Cambridge: Cambridge University Press

Conrad, J. and C. Clark (1987), Natural Resource Economics: Notes and Problems, Cambridge: Cambridge University Press

Course Assessment

Component	Weight (% of final grade)	Date
Essay	**20%**	***** topic: Jan 26 *****
		***** due: March 16 *****
		***** revisions due: March 30*****
Midterm I	**20%**	***** Feb 2 *****
Midterm II	**20%**	***** March 9 *****
Final	**40%**	**to be decided in class**

Conversion of numerical grades to final letter grades follows

A+	90-100%	**B+** 77-79 %	**F** < 70 %
A	85-89 %	**B** 73-76 %	
A-	80-84 %	**B-** 70-72 %	

Course Policies

- Late assignments or essays will receive zero.
- The marks associated with a missed exam will be added proportionately to later exams.
- Exams or assignment due-dates that occur when the university closes (e.g., due to heavy snow) will be given/be due in the next regular class meeting time
- Students should adhere to the University Policy on Academic Integrity (below) for all individual and collaborative work
- Assignments, essays and revised essays may be required to be submitted through plagiarism software

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Course Content

Attitudes towards the environment

- Traditional Attitudes
- Attempted Nonanthropocentric Attitudes
- Anthropocentric Options

Social Decision Making

- Individual Well-Being
- Aggregating Individuals

The Environment: Flow Effects

- Externalities
- Public Goods
- Regulation/Mechanism Design
- Regulation Under Uncertainty

Measurement

- Contingent Valuation
- Travel Cost
- Hedonic Prices
- Combined Approaches

Intertemporal Decision Making

Intertemporal Social Decision Making

The Environment: Stock Effects

- Externalities
- Public Goods
- Regulation/Mechanism Design

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Essay: 20% of overall mark

The essay gives you the opportunity to explore an environmental issue in greater depth than can be done in class. You should (briefly) explore the ecological and social setting of the problem and any existing or proposed methods of alleviating it. In particular, what actions cause the problem (e.g., acid rain) and why do they occur (i.e., who benefits, what incentives do they have?)? What are the ultimate effects of these actions on the environment and people? You are expected to include some economic analysis of the problem including policy recommendations that are supported by a reasoned argument.

Examples of Possible Topics: you are not limited to these topics and will probably have to choose a more specific component of these topics (e.g., a particular heavy metal or pesticide or a particular region):

Acidification of lakes

Loss of biodiversity

Loss of the ozone layer

Loss of habitat

Introduced species

Noise pollution

Erosion

Pesticides

Heavy Metals

Electronic Waste

Deadlines (Hard copy in class):

Topic: January 26 Hand in a typed page mentioning the environmental issue to be covered, any geographic or time limits of your analysis and policy issues you want to explore. Include ideas of literature/information sources. **Your topic must be approved for future work to count!**

Paper due (10pts): March 16 This should be a your best effort at a finished, polished paper.

Revised paper due (10pts): March 30 This includes any revisions in response to comments made on the paper.

****** I do not accept electronic submissions but students are required to also submit electronic versions of their paper and revised paper (on the respective due dates) to Brightspace for electronic checking of plagiarism. ******

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Technical Details:
The paper should be typed, approximately 10 to 12 pages long (including everything), with line spacing of 1.5 or 2, font 11 or 12 pt with margins of approximately 2.5 cm. I will not be exact but will take off marks if the paper is obviously difficult to read.

It should include a title page (with title, date, your name and student number), an abstract of no more than one hundred words, and a "references" section (with a consistent method of citing sources). Do not use footnotes to cite sources. Pages should be numbered.

DALHOUSIE UNIVERSITY

Faculty of Science Course Syllabus (Section B) **(revised April-2022)**

Fall/Winter 2022-23

Environmental Economics ECON 5517B

University Policies and Statements

This course is governed by the academic rules and regulations set forth in the University Calendar and by Senate

Academic Integrity

At Dalhousie University, we are guided in all of our work by the values of academic integrity: honesty, trust, fairness, responsibility and respect (The Center for Academic Integrity, Duke University, 1999). As a student, you are required to demonstrate these values in all of the work you do. The University provides policies and procedures that every member of the university community is required to follow to ensure academic integrity.

Information: https://www.dal.ca/dept/university_secretariat/academic-integrity.html

Accessibility

The Advising and Access Services Centre is Dalhousie's centre of expertise for student accessibility and accommodation. The advising team works with students who request accommodation as a result of a disability, religious obligation, or any barrier related to any other characteristic protected under Human Rights legislation (Canada and Nova Scotia).

Information: https://www.dal.ca/campus_life/academic-support/accessibility.html

Student Code of Conduct

Everyone at Dalhousie is expected to treat others with dignity and respect. The Code of Student Conduct allows Dalhousie to take disciplinary action if students don't follow this community expectation. When appropriate, violations of the code can be resolved in a reasonable and informal manner—perhaps through a restorative justice process. If an informal resolution can't be reached, or would be inappropriate, procedures exist for formal dispute resolution.

Code: https://www.dal.ca/dept/university_secretariat/policies/student-life/code-of-student-conduct.html

Diversity and Inclusion – Culture of Respect

Every person at Dalhousie has a right to be respected and safe. We believe inclusiveness is fundamental to education. We stand for equality. Dalhousie is strengthened in our diversity. We are a respectful and inclusive community. We are committed to being a place where everyone feels welcome and supported, which is why our Strategic Direction prioritizes fostering a culture of diversity and inclusiveness

Statement: http://www.dal.ca/cultureofrespect.html

Recognition of Mi'kmaq Territory

Dalhousie University would like to acknowledge that the University is on Traditional Mi'kmaq Territory. The Elders in Residence program provides students with access to First Nations elders for guidance, counsel and support. Visit or e-mail the Indigenous Student Centre (1321 Edward St) (elders@dal.ca).

Information: https://www.dal.ca/campus_life/communities/indigenous.html

Important Dates in the Academic Year (including add/drop dates)
https://academiccalendar.dal.ca/Catalog/ViewCatalog.aspx?pageid=viewcatalog&catalogid=117&chapterid=-1&topicgroupid=31821&loaduseredits=False

University Grading Practices

https://www.dal.ca/dept/university_secretariat/policies/academic/grading-practices-policy.html

DALHOUSIE UNIVERSITY

Faculty of Science Course Syllabus (Section C) **(revised April-2022)**

Fall/Winter 2022-23

Environmental Economics ECON 5517B

Student Resources and Support

Advising

General Advising https://www.dal.ca/campus_life/academic-support/advising.html

Science Program Advisors: https://www.dal.ca/faculty/science/current-students/undergrad-students/degree-planning.html

Indigenous Student Centre: https://www.dal.ca/campus_life/communities/indigenous.html

Black Students Advising Centre: https://www.dal.ca/campus_life/communities/black-student-advising.html

International Centre: https://www.dal.ca/campus_life/international-centre/current-students.html

Academic supports

Library: https://libraries.dal.ca/

Writing Centre: https://www.dal.ca/campus_life/academic-support/writing-and-study-skills.html

Studying for Success: https://www.dal.ca/campus_life/academic-support/study-skills-and-tutoring.html

Copyright Office: https://libraries.dal.ca/services/copyright-office.html

Fair Dealing Guidelines https://libraries.dal.ca/services/copyright-office/fair-dealing.html

Other supports and services

Student Health & Wellness Centre: https://www.dal.ca/campus_life/health-and-wellness.html

Student Advocacy: https://dsu.ca/dsas

Ombudsperson: https://www.dal.ca/campus_life/safety-respect/student-rights-and-responsibilities/where-to-get-help/ombudsperson.html

Safety

Biosafety: https://www.dal.ca/dept/safety/programs-services/biosafety.html

Chemical Safety: https://www.dal.ca/dept/safety/programs-services/chemical-safety.html

Radiation Safety: https://www.dal.ca/dept/safety/programs-services/radiation-safety.html

Scent-Free Program: https://www.dal.ca/dept/safety/programs-services/occupational-safety/scent-free.html

Dalhousie COVID-19 information and updates: https://www.dal.ca/covid-19-information-and-updates.html