

**CARLETON UNIVERSITY**  
**Department of Economics**  
**ECON 3804**  
ENVIRONMENTAL ECONOMICS

**Professor Maya Papineau**

**FALL 2019**

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**COURSE INFORMATION**

**Lectures:** Mondays, 2:35pm-5:25pm

**Location:** 3328 Mackenzie Building

**Professor's Office:** Loeb Building A808

**Office Hours:** Mondays 5:30-6:30pm or by appointment

**Contact:** Email: [maya.papineau@carleton.ca](mailto:maya.papineau@carleton.ca), Tel 613 520-2600 (Ext. 3758)

**Class TA:** TBD

**Prerequisite:** ECON 1000, ECON 1001 or FYSM 1003. Students who believe they have taken a similar background course or courses from another university must provide appropriate documentation to the Department of Economics Undergraduate Administrator [Amanda Wright](#).

**cuLearn**

All course content will be available via [cuLearn](#).

**COURSE DESCRIPTION**

This course introduces students to the economic analysis of environmental issues. The objective is to familiarize students with the causes, consequences and possible solutions to local and global environmental issues. Topics covered include externalities, public goods, market failure, benefit-cost analysis, measuring non-market values, and policies for environmental regulation.

**REQUIRED TEXT**

B. Field and N. Olewiler, *Environmental Economics*, Third (or Fourth) Canadian Edition (McGraw-Hill Ryerson).

**Other (optional) readings:**

Students may also find the following documents useful. They are all available either through the Carleton library website or directly online. Follow the links below. Other relevant documents may also be posted on cuLearn during the course of the semester.

-R.N. Stavins, "[The Problem of the Commons: Still Unsettled After 100 Years.](#)" *American Economic Review*, vol. 101, No. 1, 2011.

-R.W. Hahn and R.N. Stavins, "[Economic Incentives for Environmental Protection: Integrating Theory and Practice.](#)" *American Economic Review*, vol. 82, No. 2, 1992.

-H. S. Banzhaf, D. Burtraw and K. Palmer, “Efficient Emission Fees in the US Electricity Sector.” *Resource and Energy Economics*, vol. 26, 2004.

-R.H. Coase, “The Problem of Social Cost.” *Journal of Law and Economics*, vol. 3, 1960.

-J.V. Krutilla, “Conservation Reconsidered.” *American Economic Review*, vol. 57, No. 4, 1967.

-M. Fowlie, C. Knittel, and C. Wolfram, “Sacred Cars? Cost-Effective Regulation of Stationary and Non-stationary Pollution Sources.” *American Economic Journal: Economic Policy*, vol. 4(1), 2012.

-D. Burtraw and S.J. Szambelan, “U.S. Emissions Trading Markets for SO<sub>2</sub> and NO<sub>x</sub>.” *Resources for the Future Discussion Paper*, 2009.

## COURSE OUTLINE

### 1. Overview of Environmental Economics

CH. 1: What is Environmental Economics?

CH. 2: Linkages Between the Economy and the Environment

### 2. Analytical Tools

CH. 3: Benefits and Costs, Demand and Supply

CH. 4: Economic Efficiency and Markets

CH. 5: The Economics of Environmental Quality

### 3. Benefit-Cost Analysis

CH. 6: Framework of Analysis

CH. 7: Benefit Cost Analysis: Benefits

CH. 8: Benefit Cost Analysis: Costs

### 4. Environmental Policy Analysis

CH. 9: Criteria to Evaluate Environmental Policies

CH. 10: Liability Laws, Property Rights, Moral Suasion

CH. 11: Standards

CH. 12: Emission Taxes and Subsidies

CH. 13: Transferable Emission Permits

CH. 14: Compliance Costs, Uncertainty, and Information

### 5. Selected Environmental Problems\*

SELECTED PAGES FROM FIELD AND OLEWILER, CH. 15-20

\*Time permitting. Note: all chapters are from the Field and Olewiler text.

## COURSE EVALUATION

Three Assignments (Due Oct. 7, Nov. 4, Dec. 2)	15%
One in-class quiz (Oct. 14)	10%
Mid-term Exam (Nov. 18)	30%
Final Exam	45%
	<u>100%</u>

ASSIGNMENTS: All assignments must be submitted *at the beginning of class*. The answers will be posted on cuLearn immediately after the deadline, therefore no late assignments will be accepted. Please be aware that plagiarism is a serious offence and one that should be recognized and avoided. For further information regarding this subject, please see Carleton's [Academic Integrity Policy](#).

QUIZ, MIDTERM EXAM DEFERRALS POLICY: There will be no deferred quiz or midterm exam. Students who can *document* a compelling reason for missing an assignment or one of the mid-term examinations will be excused and the assigned weight will automatically be added to the final exam (there will be no deferred exams). Students must inform me of any such an absence in advance, if possible. Having multiple midterms or quizzes in close succession to each other is not a satisfactory reason to miss an examination, nor is a family reunion or vacation. Any document must include a date AND clearly identify the contact information of the note-writer so that I can verify its authenticity. **Please note: travel for family events is *not* considered a valid reason to miss a test (with the exception of a death in the family).**

FINAL EXAM: The final exam will be based on the whole course. In order to write a deferred final exam students must contact the Registrar's office.

Please note that standing in a course is determined by the course instructor subject to the approval of the Faculty Dean. This means that final grades submitted by the instructor may be subject to revision. No grades are final until they have been approved by the Dean.

## EMAIL POLICY

Email is typically best reserved for questions relating to scheduling, administrative issues or urgent matters affecting your participation in the course. It is often not possible to effectively answer questions about class material by e-mail; a more effective approach is to reserve these questions for office hours. If you do e-mail me, I will respond within no more than 72 hours. Please include "Econ 3804" in the subject line of all emails.

## INFORMATION ON ACADEMIC ACCOMODATIONS

You may need special arrangements to meet your academic obligations during the term. For an accommodation request, the processes are as follows:

## **Pregnancy obligation or religious obligation accomodation**

Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details, visit the Equity Services website: [Student Guide to Academic Accomodation](#)

## **Academic Accommodations for Students with Disabilities**

If you have a documented disability requiring academic accommodations in this course, please contact the Paul Menton Centre for Students with Disabilities (PMC) at 613-520-6608 or [pmc@carleton.ca](mailto:pmc@carleton.ca) for a formal evaluation or contact your PMC coordinator to send your instructor your Letter of Accommodation at the beginning of the term. You must also contact the PMC no later than two weeks before the first in-class scheduled test or exam requiring accommodation (if applicable). After requesting accommodation from PMC, meet with your instructor as soon as possible to ensure accommodation arrangements are made. <https://carleton.ca/pmc>

## **Survivors of Sexual Violence**

As a community, Carleton University is committed to maintaining a positive learning, working and living environment where sexual violence will not be tolerated, and is survivors are supported through academic accommodations as per Carleton's Sexual Violence Policy. For more information about the services available at the university and to obtain information about sexual violence and/or support, visit: [Sexual Violence Support](#)

## **Accommodation for Student Activities**

Carleton University recognizes the substantial benefits, both to the individual student and for the university, that result from a student participating in activities beyond the classroom experience. Reasonable accommodation must be provided to students who compete or perform at the national or international level. Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. You can also view the University's policy on accommodations for student activities at:

[Policy on Accommodation for Student Activities](#)