

# ECON371 (Economics of the Environment)

## Course syllabus

This version: November 10, 2020

- Instructor: Patrick Baylis (contact via Canvas)
  - Office hours: By appointment, sign up on Canvas
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  - Office hours: By appointment, sign up on Canvas

## 1 Course details

**Description:** This is an intermediate economics course focusing on the economics of environmental problems and the solutions to those problems. We will learn to use economic tools to better understand and evaluate environmental questions relating to pollution, environmental amenities, sustainable development, and climate change. The course will consist of three parts: the first introduce the course content develop the foundational tools necessary for analysis, the second will examine the design of environmental policy, and the third will explore global issues in environmental economics.

**Remote learning:** For the fall of 2020, this course will be conducted entirely remotely per University policy. All lectures will be delivered asynchronously as videos and available for rewatching at any time. We will have synchronous weekly meetings and 1-1 office hours by appointment to answer questions you have.

Lecture videos: Lecture videos will be broken up into 5-10 minute segments and cover one topic. You can watch through our [Media Gallery](#) on Canvas.

Weekly meetings: We will hold weekly meetings over Zoom in order to answer questions about the course material or assignments. You may submit questions in advance via Canvas or ask (via voice or chat) in real-time. These are optional and will be recorded for students who cannot attend, so keep your video and audio off if you do not wish to be recorded.

By-appointment office hours: I will have a limited number of slots for 1-on-1 office hour available.

**Canvas:** Canvas is the central location for this course. I will communicate with you through announcements on Canvas, all course material will be posted on Canvas, including lecture slides and assignments, and all assignments and exams will be given, graded, and returned through Canvas.

### **Student learning outcomes:**

1. Define and understand the concepts of social optimums and efficiency as benchmarks for describing how goods and services are allocated in society.
2. Identify market failures and their causes, describe how they can result in inefficient equilibria, and interpret their effects across a range of settings.

3. Solve mathematical problems to compare and contrast market-based solutions to environmental problems.
4. Articulate some of the important intellectual contributions to the field of environmental economics.
5. Extend concepts from class to discuss other kinds of environmental problems using the tools and methods learned in this course.

**Textbook and other course materials:** The textbook for the course is Field and Field Environmental Economics (2020), abbreviated FF. Students are responsible for the content in the eighth edition, though previous versions, especially the seventh, will likely suffice for most of the material (but check with your peers to make sure you didn't miss anything crucial). I will make other assigned and optional material available through Canvas. You are responsible for the content of the assigned chapters and other required material, as well as the content of the lectures. Note that the content of the lectures will follow FF fairly closely, but will also provide additional content and ideas to enrich your learning experience.

**Related courses:** Related courses offered by the School of Economics include Economics 370 (Cost Benefit Analysis), 374 (Land Economics), 471 (Non-renewable Resources) and 472 (Renewable Resources).

**Prerequisites:** ECON101 (Principles of Microeconomics) and ECON102 (Principles of Macroeconomics)

**Course structure:** Each week will focus on concepts from one or two chapters in the course textbook.

**Learning activities:** Students will learn the course material by completing the assigned readings, watching lecture videos, responding weekly to discussion questions, completing problem sets, and taking the final.

**Assessments:** Your grade will be determined by your participation in weekly discussion quizzes, problem sets, and a final. Your final grade will be reported as a percentage per UBC Policy<sup>1</sup>.

**Discussion quizzes:** Each week, you will respond to a set of discussion questions on our weekly discussion quiz. You may write your own responses or respond to other students. So long as you submit thoughtful, constructive responses that substantively respond to the question, you will receive full marks. Discussion quizzes will constitute 20% of your grade. If you do not submit answers or submit evidently low-effort answers, your mark will be lower. As a loose guideline, expect to write at least two hundred words in total when you respond to these questions.

**Problem sets:** five problem sets, assigned two weeks in advance. In total they will be 50% of your grade. All problem set questions will be answered via the Canvas assignment form, but for some questions you may be required to upload proof of work as well.

**Final exam:** The final will be worth 30% of your grade and will be cumulative, i.e., it will cover material from the entire course. It will be open-note and you will have a limited timeframe to complete it.

**Missed assignments:** Assignments must be turned in electronically via Canvas by the due date and time exactly. Every day an assignment is late will reduce the grade percentage by 20 points. This happens automatically, so I recommend turning in your assignments with some time to spare.

**Academic concessions:** If you require an in-term concession (to turn in an assignment late or because you cannot attend an exam, for example), you must contact Arts Advising as soon as you are aware of the need (i.e., before the work is missed except in extraordinary circumstances). Please review their website for concession criteria as well as the process to follow. Students in other Faculties

1. <http://www.calendar.ubc.ca/Vancouver/index.cfm?tree=3,42,96,0>

should contact their Faculty advising office for direction. If you are granted a concession for a given assessment, I will reassign its weight to other assessments of the same type.

**Re-marking requests:** If you believe that an assessment was incorrectly by the TA, you can appeal by returning it to me with an attached note. However, to be fair, I will regrade the entire assessment, so your score may go up or down as a result. No appeals accepted more than 7 days after the assessment was returned.

**UBC-wide policy statement:** UBC provides resources to support student learning and to maintain healthy lifestyles but recognizes that sometimes crises arise and so there are additional resources to access including those for survivors of sexual violence. UBC values respect for the person and ideas of all members of the academic community. Harassment and discrimination are not tolerated nor is suppression of academic freedom. UBC provides appropriate accommodation for students with disabilities and for religious and cultural observances. UBC values academic honesty and students are expected to acknowledge the ideas generated by others and to uphold the highest academic standards in all of their actions. Details of the policies and how to access support are available [here](#).

**Accommodations:** I am happy to make necessary accommodations for students who require it. Please contact Access and Diversity to obtain an Academic Accommodation Letter and provide it to me within the first two weeks of the term. See UBC Policy 73<sup>2</sup> for more details.

**Academic integrity:** I expect all students to exhibit academic integrity in accordance with UBC Policy<sup>3</sup>.

**UBC statement on geopolitically sensitive topics:** I don't anticipate that we will discuss any such topics in the course, but the administration has asked me to include this statement in our syllabus:

During this pandemic, the shift to online learning has greatly altered teaching and studying at UBC, including changes to health and safety considerations. Keep in mind that some UBC courses might cover topics that are censored or considered illegal by non-Canadian governments. This may include, but is not limited to, human rights, representative government, defamation, obscenity, gender or sexuality, and historical or current geopolitical controversies. If you are a student living abroad, you will be subject to the laws of your local jurisdiction, and your local authorities might limit your access to course material or take punitive action against you. UBC is strongly committed to academic freedom, but has no control over foreign authorities (please visit <http://www.calendar.ubc.ca/vancouver/index.cfm?tree=3,33,86,0> for an articulation of the values of the University conveyed in the Senate Statement on Academic Freedom). Thus, we recognize that students will have legitimate reason to exercise caution in studying certain subjects. If you have concerns regarding your personal situation, consider postponing taking a course with manifest risks, until you are back on campus or reach out to your academic advisor to find substitute courses. For further information and support, please visit: <http://academic.ubc.ca/support-resources/freedom-ex>

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2. <http://www.universitycounsel.ubc.ca/files/2010/08/policy73.pdf>.

3. <http://www.calendar.ubc.ca/Vancouver/index.cfm?tree=3,286,0,0>.

## 2 Preliminary course schedule

The following weekly schedule is provided as preview of the direction of the course, but regular updates to the schedule, including changes to upcoming topics and required readings, will be posted on Canvas only.

Week	Topic(s)	Chapter(s)
1	Class overview; What is Environmental Economics?; The Economy and the Environment	1
2	The Economy and the Environment	2
3	Willingness-to-Pay; Benefits; Costs; The Equimarginal Principle	3
4	Markets; External Costs; Public Goods	4
5	The Economics of Environmental Quality	5
6	Decentralized Policies: Liability Laws, Property Rights, Voluntary Action	10
7	Command-and-Control Strategies: The Case of Standards	11
8	Incentive-Based Strategies: Environmental Charges and Subsidies	12
9	Incentive-Based Strategies: Market Trading Systems	13
10	Global Climate Change	18
11	International Environmental Agreements	19
12	Globalization	20
13	Economic Development and the Environment	21