

**ST. FRANCIS XAVIER UNIVERSITY**  
**Department of Economics**

**ECONOMICS 281: Environmental Economics**

**Instructor:** Dr. Patrick Withey

Fall 2019

**Lectures:** **8:15 – 9:30 AM Tuesday and 9:45-11:00 AM Friday MULH 3030**

Office: MULH 3067

Office Hours: Monday 8:30 - 9:30 AM and 11:15-12:15; Wednesday 10:00-11:00 AM  
and 12:45-2:45 PM or by appointment

Web page: Class info will be available through Moodle: <http://sites.stfx.ca/itservices/>

Email: [pwithey@stfx.ca](mailto:pwithey@stfx.ca)

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**Course Description (Calendar):**

As an introduction to the relationship between human economic activity and the environment, this course explores the economic concepts used to analyze the causes, consequences, and possible solutions to local and global environmental issues. Topics include: market failure; property rights; externalities; public goods; environmental valuation; environmental policies dealing with pollution and global issues such as global warming, ozone depletion, biodiversity, and sustainability.

**Course Goals:**

The main goal of this course is to introduce students to environmental issues and to demonstrate how economic theory and analysis can be used to understand the relationship between the economy and the environment, as well as to help devise efficient policy tools to manage the environment. Students will also become familiar with Canadian environmental policies.

**Required Textbook:**

Environmental Economics, 4<sup>th</sup> Canadian Edition, 2015. Barry Field and Nancy Olewiler.  
McGraw-Hill Ryerson Ltd.

**Prerequisites:** Econ 101

## **Grading:**

Your final grade will be determined as follows:

Midterm	30%	Friday, October 11, 2019
Assignments	20%	Tentative due dates: Sept 27, Nov 1, Nov 15 and Nov 29
Final examination	<u>50%</u>	TBA

You will take one midterm test during the term, which will be based on material from lectures, textbook and any supplemental reading that may be assigned. You must also complete four assignments, which will give you an indication of what to expect on the exams. Assignments will be given out one week in advance of the due date. You must write the final exam in order to pass the course. The final examination will be set by the examinations office and covers material from the entire course. All dates above are tentative and subject to change.

## **SYLLABUS**

The following topics and readings are tentative and changes may be made as the course progresses. Chapter references refer to Field and Olewiler.

1. Introduction to Environmental Economics Ch.'s 1 and 2
  - What is Environmental Economics? Environment and the economy
  - Climate change and the role of economics (my notes)
2. Analytic tools Ch.'s 3 -5
  - Review: Demand, willingness to pay and marginal benefit (Ch.3)
  - Markets and economic efficiency (Ch.4)
  - Market failures, externalities and private vs. social costs/benefits (Ch.4)
  - Economic-environmental modeling: optimal pollution levels (Ch.5)
3. Environmental Policy Analysis Ch.'s 9-13
  - Criteria for evaluation environmental policy (Ch. 9)
  - Analysis of policy instruments: property rights, standards, taxes, subsidies and permits (Ch.'s 10-13)
4. Benefit-Cost Analysis Ch.'s 6-8
5. Environmental Policy in Practice in Canada Ch.'s 15-19 (selected)
  - Environmental policy and institutions in Canada
  - Pollution-control policy: water and air
  - Policy on toxic and hazardous substances
6. Selected topics: Global climate change (Ch. 20); Renewable energy; Water; Biodiversity

**Policies:**

Approach to the course and class participation: Students are expected to attend all classes and be present in class on time. Students are expected to prepare for each week of lectures by reading the assigned chapters of the text in advance. The course will be lecture based and lectures will be based on the required textbook for the course. However, students are responsible for all material presented in class (e.g. diagrams, notes, etc.). Lectures will be mostly theoretical, but we will introduce real world examples and examine real world environmental policies, and the concepts and theory introduced in class will be reinforced through assignments throughout the term. The work you do outside of class will go a long way in determining your outcome for the course.

Missed midterm exams: Accommodations will be made for missed mid-term exams, as long as evidence of an illness, accident or family affliction is provided. In such an event, students should immediately consult with a physician, a counsellor, or another health professional to obtain official documentation. This documentation must specifically cover the date of the missed examination.

Travel Plans: Students are advised not to make travel plans until after the examination timetable has been finalized. Students who wish to finalize their travel plans at an earlier date should book flights that depart after the end of the examination period. *There will be no special accommodation if travel plans conflict with the examination.*