

Course Outline

Department of Economics
School of Business and Economics

ECON 3710-3
Environmental Economics (3,0,0)

Calendar Description

Students apply the tools of microeconomic analysis to environmental issues. Topics include property rights and efficient resource use, market failure, the over-utilization of common pool resources, the Coase Theorem, non-market valuation techniques, government policies designed to cost-effectively control pollution, and real-world strategies for controlling pollution.

Educational Objectives/Outcomes

Upon completing this course, students will be able to:

1. Compare the concepts of efficiency and sustainability.
2. Demonstrate that ownership externalities typically result in an inefficient use of resources.
3. Explain what a cost-effective pollution control strategy entails.
4. Determine whether a taxation scheme can be utilized to achieve a socially efficient level of pollution control.
5. Demonstrate that a marketable pollution permit scheme will control pollution in a cost-effective manner.
6. Describe the real-world strategies that have been utilized to control air and water pollution.
7. Review how the Kyoto Protocol was supposed to deal with global warming.

Prerequisites

ECON 1900

Co-requisites

Texts/Materials

T. Tietenberg and L. Lewis, Environmental and Natural Resource Economics, 8th Edition, Addison-Wesley, 2009.

Student Evaluation

| | |
|---------------------|--------|
| Participation | 0-20% |
| Assignments/quizzes | 0-20% |
| Project/term paper | 0-25% |
| Midterm(s) | 30-60% |
| Final exam | 30-50% |

Course Topics

1. Environmental Impact Assessment in Canada
 - Establishment and evolution of land preservation policy in B.C. and Canada
2. Concepts Used to Value the Environment
 - Static efficiency
 - Dynamic efficiency
3. Property Rights and Externalities
 - Efficiency and the characteristics of the structure of property rights
 - Ownership externalities
 - The problem with open-access
 - Public goods and inefficiency
 - Coase Theorem
4. Basic Tools of Analysis
 - Total economic value
 - Contingent valuation
 - Hedonic pricing
 - Travel-cost method
 - Valuation of life
5. Economics of Pollution Control
 - Requirement for a cost-effective pollution control strategy
 - Emissions standards
 - Pigovian taxes
 - Marketable pollution permits
6. Air Pollution
 - Air pollution control strategies in Canada and the U.S.
 - Kyoto Protocol
7. Water Pollution
 - Water pollution control strategies in Canada and the U.S.
8. Sustainability
 - Weak sustainability

- Strong sustainability
- Environmental sustainability

Methods for Prior Learning Assessment and Recognition

As per TRU policy

Attendance Requirements – Include if different from TRU Policy

As per TRU policy

Special Course Activities – Optional

Use of Technology – Optional