

## **Department of Economics**

### ECON2212 WDE ENVIRONMENTAL ECONOMICS

### Term: Winter 2023

#### **CONTACT INFORMATION**

Instructor:	TBD
Email:	ТВА
Office Location:	ТВА
Phone Number:	Not Applicable - Web Course; Use Email
Course Website:	Desire2Learn

Please post any questions regarding course content or administrative matters in the relevant D2L Discussion Forum.

All e-mail communications must originate from your LU e-mail account and include the following in the subject line: *your name, ECON2212.* 

### **COURSE OVERVIEW**

Current debates over environmental issues concern all of us. Should oil drilling be permitted in areas providing important wildlife habitat? Should developing countries reduce deforestation, at the risk of limiting economic development? Should society invest heavily in renewable energy to mitigate global climate change? Resolving such debates draws upon academic disciplines such as ecology, political science, ethics, and sociology. What is surprising to many people is that *economics* is at the forefront of such debates. It is a common belief that economic growth and environmental protection are not compatible – after all, isn't economics at the core of many environmental problems? Given the interrelationships between the economy and the environment, the challenge is to steer economic growth toward environmental sustainability. This is where the discipline of economics can make an important contribution.

#### **DELIVERY MODE**

Online Delivery (Web-based)



### **LEARNING OBJECTIVES**

Upon completion of this course, students will:

- ♦ be able to explain the different aspects of the connection between environmental quality and the economic behaviour of individuals and business firms.
- ♦ be able to explain and illustrate, algebraically and graphically, how markets allocate goods and why they fail to allocate environmental goods in a way that maximizes the wellbeing of society
- ♦ be able to apply microeconomic principles and tools to analyze environmental problems
- ♦ be able to explain the basic principles and procedures of benefit-cost analysis and its application to projects and policies aimed at environmental improvement
- ♦ understand the different ways in which economists infer willingness-to-pay for environmental goods
- understand how to apply microeconomic principles and tools to evaluate environmental policy options such as regulations, taxes, subsidies, and tradeable pollution permit schemes

There is no economics prerequisite for this course as key microeconomic concepts and principles will be introduced, developed, and applied as part of the course. However, you should be comfortable working with basic high school algebra and graphing. Economists use models as the primary tool to derive insights about environmental issues, and these models are often expressed in terms of mathematical functions and graphs. If your math and graphing skills are rusty, it is assumed that you are willing to brush up on these early in the term.

### **COURSE MATERIALS**

#### Textbook – Suggested, not Mandatory

Barry C. Field and Martha K. Field. <u>Environmental Economics: An Introduction</u>, 8<sup>th</sup> Edition Lecture slides and other appropriate readings and materials intended to enhance your understanding and practical application of course concepts will be posted in D2L.

### **EVALUATION**

3 Timed Tests	Opens 6:00AM EST and closes 11:59PM – See page 3 for dates	35%
9 Assignments	Due SUNDAYS @ 11:59PM – See page 3 for dates	30%
Exam	To be Determined	35%

#### **Timed Tests**

These will be written in D2L and will consist of true/false, multiple choice and fill-in-the-blank questions which require calculations. The tests will open at 6:00AM EST and close at 11:59PM on the due dates. Your scores and the correct answers will be revealed after the due dates.

#### Assignments



Analytical assignments involving the use of algebra and graphing to solve problems will be submitted into D2L assignment folders. Although you are encouraged to work in study groups and discuss problems with each other, you are responsible for submitting your own write-up of solutions. **Copying another student's work is a violation of the Student Code of Conduct**. <u>The name(s) of any student(s) in your study group must</u> be written on each assignment submitted.

#### **Cumulative Timed Exam**

To be completed in D2L, consisting of true/false, multiple choice and fill-in-the-blank questions (which require calculations). It will cover all course materials.

Dates	Topics	Material
Jan. 9 - 13	What is environmental economics? The economy and the environment.	Ch. 1, 2
Jan. 16 – 20	Benefits and Costs, Supply and Demand Assignment #1 due January 20	Ch. 3
Jan. 23 – Jan 27	Markets, Externalities and Public Goods Assignment #2 due January 30 Assignment #3 due February 6 Test #1 Ch. 1, 2, 3 and 4 - January 27	Ch. 4
Jan. 30- Feb. 3	The Economics of Environmental Quality Assignment #4 due Feb. 3	Ch. 5
Feb. 6 - 10	Frameworks of Analysis: Impact Analysis, Cost-Effectiveness Analysis, Damage Assessment, Benefit-Cost Analysis; Discounting Assignment #5 due Feb. 10	Ch. 6
Feb. 13 – 17	READING WEEK – No homework or assignments due	
Feb. 20 – Feb. 24	Valuing Benefits of Improved Environmental Quality Assignment #6 due Feb 24	Ch. 7
Feb. 27 - Mar 3	Decentralized Policies: Liability Laws, Property Rights, Voluntary Action Test #2 Ch. 5, 6, 7 and 10 - March 3	Ch. 10

### SELF-DIRECTED LEARNING SCHEDULE



Mar. 6 – 10	Command-and-Control Strategies: Standards Assignment #7 due March 20	Ch. 11
Mar. 13 – 17	Incentive-Based Strategies: Environmental Charges & Subsidies Assignment #8 due March 27	Ch. 12
Mar. 20 – Apr. 24	Incentive-Based Strategies: Market Trading Systems Assignment #9 due April 3 Test #3 Ch. 11, 12 and 13 – April 11 or TBA	Ch. 13

# COPYRIGHT

Students should be aware that all instructional, reference, and administrative materials prepared for this course are protected in their entirety by copyright. Students are expected to comply with this copyright by only accessing and using the course materials for personal educational use related to the course, and that the materials cannot be shared in any way, without the written authorization of the course instructor. If this copyright is infringed in anyway, students may be prosecuted under the Lakehead University Student Code of Conduct – Academic Integrity, which requires students to act ethically and with integrity in academic matters and to demonstrate behaviours that support the University's academic values.

# REGULATIONS

It is the responsibility of each student registered at Lakehead University to be familiar with, and comply with all the terms, requirements, regulations, policies and conditions in the Lakehead University <u>Academic</u> <u>Calendar</u>. This includes, but is not limited to, Academic Program Requirements, Academic Schedule of Dates, University and Faculty/School Policies and Regulations and the Fees and Refund Policies and Schedules (Lakehead University Regulations webpage, 2022-23).

# ACADEMIC INTEGRITY

A breach of Academic Integrity is a serious offence. The principle of Academic Integrity, particularly of doing one's own work, documenting properly (including use of quotation marks, appropriate paraphrasing and referencing/citation), collaborating appropriately, and avoiding misrepresentation, is a core principle in university study. Students should view the <u>Student Code of Conduct - Academic Integrity</u> for a full description of academic offences, procedures when Academic Integrity breaches are suspected and sanctions for breaches of Academic Integrity.

A copy of the <u>Code of Student Behaviour and Disciplinary Procedures</u> including sections on plagiarism and other forms of misconduct may be obtained from the Office of the Registrar.

The following rules shall govern the treatment of candidates who have been found guilty of attempting



to obtain academic credit dishonestly.

(a) The minimum penalty for a candidate found guilty of plagiarism, or of cheating on any part of a course will be a zero for the work concerned.

(b) A candidate found guilty of cheating on a formal examination or a test, or of serious or repeated plagiarism, or of unofficially obtaining a copy of an examination paper before the examination is scheduled to be written, will receive zero for the course and may be expelled from the University.

Students disciplined under the Code of Student Behaviour and Disciplinary Procedures may appeal their case through the Judicial Panel.

Note: "Plagiarism" shall be deemed to include:

1. Plagiarism of ideas as where an idea of an author or speaker is incorporated into the body of an assignment as though it were the writer's idea, i.e. no credit is given the person through referencing or footnoting or endnoting.

2. Plagiarism of words occurs when phrases, sentences, tables or illustrations of an author or speaker are incorporated into the body of a writer's own, i.e. no quotations or indentations (depending on the format followed) are present but referencing or footnoting or endnoting is given.

3. Plagiarism of ideas and words as where words and an idea(s) of an author or speaker are incorporated into the body of a written assignment as though they were the writer's own words and ideas, i.e. no quotations or indentations (depending on format followed) are present and no referencing or footnoting or endnoting is given

# SUPPORT FOR STUDENTS

There are many resources available to support students. These include but are not limited to:

<u>Health and Wellness</u> <u>Student Success Centre</u> <u>Student Accessibility Centre</u> <u>Library</u> <u>Lakehead International</u> <u>Indigenous Initiatives</u>

Lakehead University is committed to achieving full accessibility for persons with disabilities. Part of this commitment includes arranging academic accommodations for students with disabilities and/or medical conditions to ensure they have an equitable opportunity to participate in all of their academic activities. If you are a student with a disability and think you may need accommodations, you are strongly encouraged to contact Student Accessibility Services (SAS) and register as early as possible. For more information, please contact <u>Student Accessibility Services</u> (SC0003, 343-8047 or <u>sas@lakeheadu.ca</u>)