

Course Outline for Environmental Biology BIOL/ENST 3610 FDE Fall 2025
Department of Sustainability Sciences/Biology

Mode of delivery: Online

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Required Text Book: Environment: The Science Behind the Stories, 3rd Canadian Edition, Jay Withgott, Matthew Laposata and Barbara Murck (For availability and price at Pearson: <https://www.pearson.com/en-ca/subject-catalog/p/environment-the-science-behind-the-stories-canadian-edition/P200000002619/9780137878574>) \$77.00 ebook, \$246.00 print

Course objective: On completion of this course students will be able to:

- Understand the significance of renewable and non-renewable resources.
- Appreciate the basic principles of environmental sustainability.
- Recognize the contemporary environmental issues affecting biosphere.
- Appreciate and apply environmentally benign methods to protect our environment.
- Engage in activities that will help increase environmental conservation.
- Increase the awareness on environmental policies and laws.
- Value and respect environmental citizenship

Course outline

Week of (subject to change): 2025

Reading material for each class is the corresponding textbook chapter. Please note that slides only cover major points, questions for quizzes, midterm and final exams will cover contents of book chapters that may not be covered in the slides.

Sept 02 Chapter 1: An introduction to Environmental Science

 Chapter 2: Matter, Energy and the Physical Environment

Sept 08	Chapter 3: Earth Systems and Ecosystems
	Chapter 4: Evolution, Biodiversity and Population Ecology
Sept 15	Chapter 5: Species Interactions and Community Ecology
Sept 18 [Quiz#1, Chapters 1 to 5]	
	Chapter 6: Human Population
Sept 22	Chapter 7: Soils and Soil Resources
	Chapter 8: Agriculture, Food and Biotechnology
Sept 29	Chapter 9: Conservation of Species and Habitats
Oct 02 [Quiz #2, Chapters 6 to 9]	
	Chapter 10: Forests and Forest Management
Oct 06	Midterm on Oct 9 (Chapters 1-10)
	Chapter 11: Freshwater Systems and Water Resources
Oct 13	Reading Week
Oct 20	Chapter 12: Marine and Coastal Systems and Fisheries
	Chapter 13: Atmospheric Science and Air Pollution
Oct 27	Chapter 14: Global Climate Change
	Chapter 15: Fossil Fuels: Energy use and Impacts
Nov 03	Chapter 16: Energy Alternatives
Nov 06 [Quiz #3, Chapters 11 to 14]	
	Chapter 17: Mineral Resources and Mining
Nov 10	Chapter 18: Managing our Wastes
	Chapter 19: Environmental Health and Hazards
Nov 17	Chapter 20: Environmental Ethics and Economics: Values and Choices
Nov 20 [Quiz #4, Chapters 15 to 18]	

	Chapter 21: Environmental Policy: Decision-making and Problem-Solving
Nov 24	Chapter 22: Strategies for Sustainability
[Nov 28 is the deadline to submit two pages write-up on environmental issues with your suggested solution – see below for details]	

Final exam: Date to be announced (Chapters 11 to 22)

Additional Information and Requirements:

1). Additional Study Materials: Power point slides will be posted at the D2L course site. It is the responsibility of the students to look for additional information on the lectures from the required textbook as the power point slides capture only the major points of the chapter content. Live or recorded lectures are not part of the course. For quizzes, midterm and final there will be questions from outside the power point slides but from the textbook chapters, so the students are encouraged to read the chapters from the textbook and make notes for studying. The practice of repeated revisions of the contents before each quiz/test is a good recipe for scoring high grades. If materials outside the textbook are used, they will be duly posted on the course site from time to time.

2). Quizzes, midterm and the final will have multiple choice, fill in the blanks or very short answer type questions. The tests (quizzes, midterm and the final) will be available only on the respective days and durations as mentioned in the course schedule. The test windows will automatically become inactive at the end of each duration of the test/quiz. Approximately the following are the available durations for the tests:

Quiz: 15 questions - 15 min from the start with 2 min grace time (total 17 min)

Midterm: 80 questions – 80 minutes from the start with 5 min grace time (total 85 min)

Final: 100 questions - 100 minutes from the start with 5 min grace time (total 105 min)

Thus, each question gets 1 minute to answer, which is considered as a standard practice for the multiple-choice questions in online courses.

3). Additional videos and reading materials if available will be posted at the website from time to time.

4) Weightage:

Each quiz carries 5 % weightage [4 quizzes x 5 %]	20%
Midterm	30%
Final	35%
Written assignment	15%

5) Written assignment:

A one and a half page (1.5 page) written material about any pertinent issues in environmental biology, for example: climate change, water pollution, seawater warming, ocean acidity, over exploitation of resources, over fishing, effluent discharge, deforestation, invasive species, landscape alteration, microplastics in water, pharmaceutical compounds in water, etc. or any issues related to environment is needed to be submitted to the **Written Assignment** folder available at the course site before the deadline November 28th 11.59pm. Late submissions will lose marks 5% for one day late submission (i.e. by November 29th 11.59pm), 10% for 2 days late submission (i.e. by November 30th 11.59pm) and after November 30th 11.59 pm the entire 15% marks will be lost for the assignment.

The one and a half page (1.5 page) write-up should have at least 4 references (refereed journal papers preferred) with full citation in APA format given at the end. The last paragraph (3-4 sentences) should be the synthesis of the problem and your suggested solution. The citations can be fitted in the second page. References can be in single line spacing and can go to third page if necessary.

Format and style: 12 point font (Time New Roman) with 1.5 line spacing for text and single line spacing for the references.

A rubric for the written assignment will be posted separately at the course site.

The write-up will be strictly scrutinized for plagiarism and AI assisted text materials. AI assisted writing tools including the use of ChatGPT or similar web resources are strongly discouraged. If plagiarism or AI assisted texts are detected in the written assignment a grade zero will be given for the assignment. Please check the Lakehead University policy for academic dishonesty:

Academic Dishonesty

Plagiarism is an extremely serious academic offense and carries penalties varying from failure in an assignment to expulsion from the university. Students are encouraged to review the University Regulations regarding academic dishonesty and student code of conduct.

<https://www.lakeheadu.ca/faculty-and-staff/departments/services/provost-vice-president-academic/academic-integrity-plans-policies/academic-dishonesty-regulations>

If required more explanation, obtain a copy of the "Code of Student Behaviour and Disciplinary Procedures" from the Office of the Registrar.

Additional information about quizzes and tests:

Quiz and test availability:

Each quiz and test will be available for 24 hrs period on the respective dates mentioned in the schedule above. During these 24 hrs, once you begin a quiz or test the timer begins and the availability ends after the allocated duration (15 min + 2 min grace time for quizzes and 80 min + 5 min and 100 min + 5 min for midterm and final exam, respectively). Students must complete the quizzes and tests within the allocated time and hit the submit button for evaluation.

Duration

The duration of quizzes and tests works on a one question per minute basis. This is generally sufficient to complete the quizzes and tests comfortably within the allocated time. However, if students need more time, they are encouraged to contact Student Accessibility Services (SAS) to get an accommodation approved. Once the accommodation form from SAS indicating the recommended extra time is received, I will duly accommodate the duration on an individual basis for quizzes and tests.

Invigilation:

As this is an online web-based course, there will be no active invigilation for quizzes and tests. Students are allowed to use their textbook and teaching materials posted while answering quizzes and tests but are **strongly discouraged** to use internet browsing and answers from internet sources. If answers from internet sources are found, this will be considered as an academic integrity breach and a mark zero will be assigned for that question.