

Course Outline for Environmental Biology BIOL/ENST 3610 FDE Fall 2023
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

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): 2023

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 04 Chapter 1: An introduction to Environmental Science
 Chapter 2: Matter, Energy and the Physical Environment

Sept 11	Chapter 3: Earth Systems and Ecosystems
	Chapter 4: Evolution, Biodiversity and Population Ecology
Sept 18	Chapter 5: Species Interactions and Community Ecology
	Sept 21 [Quiz#1, Chapters 1 to 5]
	Chapter 6: Human Population
Sept 25	Chapter 7: Soils and Soil Resources
	Chapter 8: Agriculture, Food and Biotechnology
Oct 02	Chapter 9: Conservation of Species and Habitats
	Oct 05 [Quiz #2, Chapters 6 to 9]
	Chapter 10: Forests and Forest Management
Oct 09	Reading Week
Oct 16	Midterm on Oct 19 (Chapters 1-10)
	Chapter 11: Freshwater Systems and Water Resources
Oct 23	Chapter 12: Marine and Coastal Systems and Fisheries
	Chapter 13: Atmospheric Science and Air Pollution
Oct 30	Chapter 14: Global Climate Change
	Chapter 15: Fossil Fuels: Energy use and Impacts
Nov 06	Chapter 16: Energy Alternatives
	Nov 9 [Quiz #3, Chapters 11 to 14]
	Chapter 17: Mineral Resources and Mining
Nov 13	Chapter 18: Managing our Wastes
	Chapter 19: Environmental Health and Hazards
Nov 20	Chapter 20: Environmental Ethics and Economics: Values and Choices
	Nov 23 [Quiz #4, Chapters 15 to 18]
	Chapter 21: Environmental Policy: Decision-making and Problem-Solving

Nov 27 Chapter 22: Strategies for Sustainability

[Dec 04 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 points (in **pdf** format only) will be posted at the course site in D2L. It is the responsibility of the students to look for additional information about the lectures from the required textbook as the power points captures only the highlights of the chapter content. For quizzes, midterm and the final exams there will be questions from the contents outside the power point slides, but from the textbook. If materials outside the textbook are used, they will be duly posted at the course site from time to time. Recorded lectures are **not** available for this course.

2). Quizzes, midterm and the final exams will have multiple choice questions and some short answer questions. The tests (quizzes, midterm and the final) will be available for the students only on the respective days (anytime during the 24 hrs of that day) and durations as mentioned in the schedule above. The test windows will automatically become inactive at the end of each duration of the test. If you need additional time, please contact Student Accessibility Services for approval and paperwork. The following are the available durations for the tests:

Each quiz: ~ 15 questions - 15 min from start + 2 extra min

Midterm: ~ 80 questions – 80 minutes from start + 5 extra min

Final: ~ 100 questions - 100 minutes from start + 5 extra min

3). Additional videos and reading materials, if available, will be posted at the course site 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 two page written assignment 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, land scape alteration, microplastics in water, pharmaceutical compounds in water, aquifer drainage, fossil fuel burning, etc. or any issues related to environment is to be submitted to the **Written Assignment Folder available at the D2L course site** before the deadline December 4th 11.59pm. Late submissions will lose marks 4% for one day late submission (i.e. by December 5th 11.59pm), 8% for 2 days late submission (i.e. by December 6th 11.59pm) and 12% for 3 days late submission (December 7th 11.59 pm). After December 7th 11.59 pm the entire 15% marks will be lost for the assignment.

The two pages write-up (**in your own words**) should have at least 5 references (**articles from refereed journal papers and/or book chapters**) with full citation in **APA format** given at the end. The assignment will have a title followed by the first paragraph to introduce the problem/issue with references, second and third paragraphs will discuss the problem in the context of information available in the references cited and the last paragraph will provide a synthesis of the problem and your suggested solution. The citations (only) can be on the third page (if need be). A rubric for the assignment will be posted at the course site.

Format and style: **12-point font (Time New Roman) with 1.5 line spacing.**

The write-up will be strictly scrutinized for plagiarism with the available software. If plagiarism is detected, it will be reported to the concerned university authorities, and a grade ‘zero’ will be given to the assignment. Please see the following policies of Lakehead University on plagiarism:

Additional notes: There will not be any opportunities in this course to do a ‘make-up’ or ‘re-do’ of missed or failed assignments. Additional (extra) work to improve your grade is not an option as well. Therefore, students are encouraged to do good preparation and study well before doing an assignment.

Since all assignments (except the written assignment) are online, students please make sure your internet connection is good and uninterrupted during the tests and quizzes.

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 Section IX of the University Regulations regarding academic dishonesty.

(<http://calendar.lakeheadu.ca/current/contents/regulations/univregsIXacdishon.html>)

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