

Course Outline for Environmental Biology BIOL/ENST 3610 ADE Summer 2022
Department of Sustainability Sciences/Biology

Mode of delivery: Online

Instructor: TBA

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
- Awareness on Environmental policies and laws
- Understand Environmental citizenship

Course outline

Week of (subject to change): 2022

Reading material for each class is the corresponding text book 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.

July 4 Chapter 1: An introduction to Environmental Science
Chapter 2: Matter, Energy and the Physical Environment
Chapter 3: Earth Systems and Ecosystems

	Chapter 4: Evolution, Biodiversity and Population Ecology
July 11	Chapter 5: Species Interactions and Community Ecology
	[Quiz#1, Chapters 1 to 5]
	Chapter 6: Human Population
	Chapter 7: Soils and Soil Resources
	Chapter 8: Agriculture, Food and Biotechnology
July 18	Chapter 9: Conservation of Species and Habitats
	[Quiz #2, Chapters 6 to 9]
	Chapter 10: Forests and Forest Management
	Midterm (Chapters 1-10)
	Chapter 11: Freshwater Systems and Water Resources
	Chapter 12: Marine and Coastal Systems and Fisheries
	Chapter 13: Atmospheric Science and Air Pollution
July 25	Chapter 14: Global Climate Change
	[Quiz #3, Chapters 11 to 14]
	Chapter 15: Fossil Fuels: Energy use and Impacts
	Chapter 16: Energy Alternatives
	Chapter 17: Mineral Resources and Mining
August 1	Chapter 18: Managing our Wastes
	[Quiz #4, Chapters 15 to 18]
	Chapter 19: Environmental Health and Hazards
	Chapter 20: Environmental Ethics and Economics: Values and Choices
	Chapter 21: Environmental Policy: Decision-making and Problem-Solving
August 8	Chapter 22: Strategies for Sustainability

[**August 15** is the deadline to submit one page 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 D2L course website. It is the responsibility of the students to look for additional information about the lectures from the required text book as the power points captures only the highlights of the chapter content. There will not be any recorded lectures. Therefore, for quizzes, midterm and the final exams there will be questions from outside the power point slides, but from the text book. If materials outside the text book are used, they will be duly posted on the course website from time to time.

2). Quizzes, midterm and the final will have multiple choice questions and some short answers. The tests (quizzes, midterm and the final) will be available for the students only on the respective days and durations as mentioned in the schedule above. The test windows will automatically become inactive at the end of each duration of the test. The following are the available durations for the tests:

Each quiz: Approximately 15 questions - 15 min from the start.

Midterm: Approximately 80 questions – 80 minutes from the start.

Final: Approximately 100 questions - 100 minutes from the start.

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	40%
Written assignment	10%

5) Written assignment:

A one 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, 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 August 15th 11.59pm. Late submissions will lose marks 3% for one day late submission (i.e. by August 16th 11.59pm), 5% for 2 days late submission (i.e. by August 17th 11.59pm) and 8% for 3 days late submission (August 18th 11.59 pm).

After August 18th 11.59 pm the entire 10% marks will be lost for the assignment.

The one page write-up (**in your own words**) should have at least 3-5 references (**articles from refereed journal papers**) 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 paragraph discusses the problem in the context of information available in the references and the last paragraph (3-4 sentences) on the synthesis of the problem and your suggested solution. The citations (only) can be in the second page.

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:

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.