

Course Outline for Environmental Biology BIOL/ENST 3610 WDE Winter 2020
Department of Sustainability Sciences/Biology

Mode of delivery: Online

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Required Text Book: Environment: The Science Behind the Stories, 3th 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): 2020

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.

Jan 06	Chapter 1: Introduction to Environmental Science
	Chapter 2: Matter, Energy and the Physical Environment
Jan 13	Chapter 3: Earth Systems and Ecosystems
	Chapter 4: Evolution, Diversity and Population Ecology
Jan 20	Chapter 5: Species Interactions and Community Ecology

Jan 23 [Quiz#1, Chapters 3,4,5]

Chapter 6: Human Population

Jan 27 Chapter 7: Soil and Soil Resources

Chapter 8: Agriculture, Food and Biotechnology

Feb 03 Chapter 9: Conservation of Species and Habitats

Feb 06 [Quiz #2, Chapters 6,7,8]

Chapter 10: Forest and Forest Management

Feb 10 **Midterm on Feb 11 (Chapters 1-10)**

Chapter 11: Freshwater Systems and Water Resources

Feb 17 **Winter break: Feb 17 - 21**

Feb 24 Chapter 12: Marine and Coastal Systems and Fisheries

Chapter 13: Atmospheric Sciences and Air Pollution

March 02 Chapter 14: Global Climate Change

March 05 [Quiz #3, Chapters 12,13,14]

Chapter 15: Fossil Fuels: Energy use and Impacts

March 09 Chapter 16: Energy Alternatives

Chapter 17: Mineral Resources and Mining

March 16 Chapter 18: Managing our Wastes

March 19 [Quiz #4, Chapters 16,17,18]

Chapter 19: Environmental Health and Hazards

March 23 Chapter 20: Environmental Ethics and Economics: Values and Choices

Chapter 21: Environmental Policy: Decision-making and Problem Solving

March 30 Chapter 22: Strategies for Sustainability

Apr 03 [Deadline to submit one page write-up on any environmental issues
With your suggested solution – see below for details]

Apr 15 Final exam: April 15, 2020 (Chapters 11 to 22)

Additional Information and Requirements:

1). **Additional Study Materials:** Power points 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. Therefore, for quizzes, midterm and final there will be questions from outside the power point slides. 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 be multiple choice questions. 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 will be the available durations for the tests:

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

Midterm: 80 questions – 80 minutes from the start.

Final: 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 via email to the instructor (nkanavil@lakeheadu.ca) **not in the D2L email (not in the course site)** before the deadline April 3rd 11.59pm. Late submissions will lose marks 3 % for one day late submission (i.e. by April 4th 11.59pm), 5% for 2 days late submission (i.e. by April 5th 11.59pm) and 8% for 3 days late submission (April 6th 11.59 pm). After April 6th 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 first paragraph introduces the problem/issue with references, second paragraph discusses the problem with references and the last paragraph (3-4 sentences) should be the synthesis of the problem and your suggested solution. The citations (only) can be in the next 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:

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.