

**Course Outline for Environmental Biology BIOL/ENST 3610 ADE      Summer 2019**  
**Department of Sustainability Sciences/Biology**

**Mode of delivery:**    Online

**Duration:**                  July 02, 2019 to Aug 14, 2019

**Instructor:**                 Dr. Nanda Kanavillil

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**Required Text Book:** Environment: The Science Behind the Stories, 3<sup>rd</sup> Canadian Edition (2017) by Jay Withgott, Matthew Laposata and Barbara Murck

Publisher – Pearson Canada Inc.

ISBN 978-0-321-93146-7

**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): 2019**

**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.**

Jly 02                         Chapter 1: Introduction to Environmental Science

                                   Chapter 2: Matter, Energy and the Physical Environment

	Chapter 3: Earth Systems and Ecosystems
	Chapter 4: Evolution, Diversity and Population Ecology
Jly 8	<b>Jly 9 [Quiz#1, Chapters 2,3,4]</b>
	Chapter 5: Species Interactions and Community Ecology
	Chapter 6: Human Population
	Chapter 7: Soil and Soil Resources
	Chapter 8: Agriculture, Food and Biotechnology
Jly 15	<b>Jly 16 [Quiz #2, Chapters 5,6,7]</b>
	Chapter 9: Conservation of Species and Habitats
	Chapter 10: Forest and Forest Management
	<b>Midterm on Jly 19 (Chapters 1-10)</b>
Jly 22	Chapter 11: Freshwater Systems and Water Resources
	Chapter 12: Marine and Coastal Systems and Fisheries
	Chapter 13: Atmospheric Sciences and Air Pollution
	Chapter 14: Global Climate Change
	<b>Jly 26 [Quiz #3, Chapters 11,12,13]</b>
Jly 29	Chapter 15: Fossil Fuels: Energy use and Impacts
	Chapter 16: Energy Alternatives
	Chapter 17: Mineral Resources and Mining
	Chapter 18: Managing our Wastes
	<b>Aug 02 [Quiz #4, Chapters 15,16,17]</b>
Aug 05	Chapter 19: Environmental Health and Hazards
	Chapter 20: Environmental Ethics and Economics: Values and Choices
	Chapter 21: Environmental Policy: Decision-making and Problem Solving
	Chapter 22: Strategies for Sustainability

**Aug 9 [Deadline to submit one page write-up on any environmental issues**

**With your suggested solution – see below for details]**

**Aug 12      Final exam: Aug 14 (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. Audio on the lectures will not be provided. For quizzes, midterm and final there will be questions from outside the power point slides but from the text book content. 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. Approximately 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.

Thus each question will get 1 minute to answer, which is considered a standard practice for the multiple choice questions in online courses. In addition, there will be a 5 min grace time for each of these assignments than what is mentioned above.

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	35%
Final	35%
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, etc. or any issues related to environment is needed to be submitted via email to the instructor ([nkanavil@lakeheadu.ca](mailto:nkanavil@lakeheadu.ca)) before the deadline August 9<sup>th</sup> 11.59pm. Late submissions will lose marks 3 % for one day late submission (i.e. by Aug 10<sup>th</sup> 11.59pm), 5% for 2 days late submission (i.e. by Aug 11<sup>th</sup> 11.59pm) and 8% for 3 days late submission (Aug 12<sup>th</sup> 11.59 pm). After Aug 12<sup>th</sup> 11.59 pm the entire 10% marks will be lost for the assignment.

The one page write-up should have at least 3 references (from refereed journal papers) 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 three citations (only) can be in the next page.

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

The write-up will be strictly scrutinized for plagiarism. If plagiarism is detected, a grade of 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.