

Course Outline for Environmental Biology BIOL/ENST 3610 ADE Summer 2026
Department of Sustainability Sciences/Biology

Mode of delivery: Online
No zoom lectures or recorded lectures
Duration: July 02, 2026 to Aug 14, 2026
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Required Text Book: Environment: The Science Behind the Stories, 3th Canadian Edition (2017)
by Jay Withgott, Matthew Laposata and Barbara Murck

Publisher – Pearson Canada Inc.

ISBN 978-0-321-93146-7

Print: CAD 246

E-book: CAD 77.99

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

2026: Week starting (subject to change):

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

Jly 02	Chapter 1: Introduction to Environmental Science
	Chapter 2: Matter, Energy and the Physical Environment
Jly 06	Jly 9 [Quiz#1, Chapters 1,2,3,4]
	Chapter 3: Earth Systems and Ecosystems
	Chapter 4: Evolution, Diversity and Population Ecology
	Chapter 5: Species Interactions and Community Ecology
	Chapter 6: Human Population
Jly 13	Jly 16 [Quiz #2, Chapters 5,6,7,8]
	Chapter 7: Soil and Soil Resources
	Chapter 8: Agriculture, Food and Biotechnology
	Chapter 9: Conservation of Species and Habitats
	Chapter 10: Forest and Forest Management
Jly 20	Midterm on Jly 23 (Chapters 1-10)
	Chapter 11: Freshwater Systems and Water Resources
	Chapter 12: Marine and Coastal Systems and Fisheries
	Chapter 13: Atmospheric Sciences and Air Pollution
Jly 27	Jly 30 [Quiz #3, Chapters 11,12,13,14]
	Chapter 14: Global Climate Change
	Chapter 15: Fossil Fuels: Energy use and Impacts
	Chapter 16: Energy Alternatives
Aug 03	Aug 06 [Quiz #4, Chapters 15,16,17,18]
	Chapter 17: Mineral Resources and Mining
	Chapter 18: Managing our Wastes
	Chapter 19: Environmental Health and Hazards

Aug 10 Chapter 20: Environmental Ethics and Economics: Values and Choices
Chapter 21: Environmental Policy: Decision-making and Problem Solving
Chapter 22: Strategies for Sustainability

Aug 10 [Deadline to submit written assignment on any environmental issues

With your suggested solution in your own words – see below for details]

Final exam: Aug 14 (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 content, 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 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 (24 hrs from the beginning) will automatically become inactive at the end of each duration of the test/quiz. Approximately the following are the available durations for the tests:

Quizzes: 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 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 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 to the **Written Assignment** folder available at the course site before the deadline August 10th 11.59pm. The written assignment will have a first paragraph describing the background/introduction of the topic followed by discussion (drawing contents from the references) and a synthesis. The synthesis should contain the conclusion of the topic and your suggested solution to the problem.

Late submissions without prior permission will lose marks 5% for one day late submission (i.e. by Aug 11th 11.59pm), 10% for 2 days late submission (i.e. by Aug 12th 11.59pm) and after Aug 12th 11.59 pm the entire 15% marks will be lost for the assignment.

The write-up should have at least 4 references (refereed journal papers) with full citation given in APA format at the end. The citations can be fitted in the second/third page. Reference listing can be in single line spacing.

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. 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 above. During this period, once you start 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.