

# **THE ENVIRONMENT**

**GEOG/ENST 1170 Fall 2021**

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**Lab Instructors:**

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## **Description**

Current environmental issues will be examined using a geographical approach that stresses the interrelationships between environments and societies. The major physical and societal components of the earth/atmosphere system will be introduced to provide a base for the understanding of the nature and development of modern environmental concerns. Often these concerns are not completely new but have evolved over decades or even centuries. The histories, characteristics, and impacts of specific problems will be examined in detail and potential solutions will be evaluated through exploration of perspectives including technology, politics, economics, and planning and management.

## **Course Textbook**

Dearden, Philip, Bruce Mitchell, and Erin O’Connell (2020). *Environmental Change and Challenge (6th Edition)*, Oxford University Press, Don Mills, Ontario, Canada.

Students will be assigned readings from the text to complete *before each lecture*.

## **Evaluation Scheme**

|                      |            |             |
|----------------------|------------|-------------|
| <b>Lab Exercises</b> | <b>40%</b> | Weekly      |
| <b>Term Test 1</b>   | <b>12%</b> | October 4   |
| <b>Term Test 2</b>   | <b>12%</b> | November 3  |
| <b>Term Test 3</b>   | <b>12%</b> | November 24 |
| <b>Final Exam</b>    | <b>24%</b> | TBA         |

There will be weekly lab exercises, three term tests, and a final examination. All tests will be administered on-line in an open-book format.

## Lecture Times

Monday: 5:30 – 7:00 pm

Wednesday: 5:30 – 7:00 pm

## Lecture Schedule (subject to changes as necessary)

| Date         | Reading    | Topic                          |
|--------------|------------|--------------------------------|
| September 8  |            | Introduction                   |
| September 13 | Chapter 1  | Management and Sustainability  |
| September 15 | Chapter 2  | Responding to Global Change    |
| September 20 | Chapter 3  | Energy and Ecosystems          |
| September 22 | Chapter 3  | Biodiversity                   |
| September 27 | Chapter 4  | Ecosystem Dynamics             |
| September 29 | Chapter 4  | Ecosystem Change               |
| October 4    |            | <b>Term Test 1</b>             |
| October 6    | Chapter 5  | Biogeochemical Cycles          |
| October 11   |            | <b>Study Week</b>              |
| October 13   |            | <b>Study Week</b>              |
| October 18   | Chapter 5  | Disrupted Cycles               |
| October 20   | Chapter 8  | Climate Change                 |
| October 25   | Chapter 8  | Adaptation and Mitigation      |
| October 27   | Chapter 9  | Ocean Ecosystems               |
| November 1   | Chapter 9  | Ocean Management               |
| November 3   |            | <b>Term Test 2</b>             |
| November 8   | Chapter 10 | Forests                        |
| November 10  | Chapter 11 | Agriculture                    |
| November 15  | Chapter 11 | Sustainable Food Production    |
| November 17  | Chapter 12 | Water                          |
| November 22  | Chapter 12 | Water Resource Management      |
| November 24  |            | <b>Term Test 3</b>             |
| November 29  | Chapter 13 | Minerals and Energy            |
| December 1   | Chapter 14 | Urban Environmental Management |
| December 6   | Chapter 15 | Protected Areas                |

## **Learning Outcomes**

### **Knowledge**

- Understand the basics of ecosystem relationships and succession
- Follow the energy flows through ecological systems and the hydrosphere, lithosphere, and atmosphere
- Connect the relationships between ecological systems and the exploitation of natural resources, including ocean, forest, agricultural, mineral, and water resources
- Consider political and economic restraints on current systems and implications for change
- Apply these principles to current issues and case studies in Canada and around the world

### **Skill Development**

- Tracing through the major biogeochemical cycles and analysis of the consequences of various disruptions to these cycles
- Evaluation of practices for managing environmental impacts
- Application of sustainable development principles to environmental systems

## **Course Delivery**

In accordance with the safety protocols at Lakehead University during the pandemic of Fall 2021, this course will be delivered using on-line methods. The primary mode of contact will be synchronous lectures during the scheduled time periods each week.

Course materials and tests will be delivered through the **Desire2Learn** platform at MyCourseLink. Lectures will be hosted by the instructor using the **Zoom** platform; links to the sessions are in the MyCourseLink Calendar. Class activities will be shared among classmates using **Google Docs**.

Recordings of **Zoom** lectures and **Google Docs** will be made available asynchronously for students who are unable to attend the lectures at the scheduled times, due to technological limitations or other reasons. Students are responsible for keeping up with the class.

Lab exercises will be conducted in person when and where possible. Schedules and outlines of lab activities will be made available by the Lab Instructors.

### **LU Notice for Recording Lectures and Class Activities**

In GEOG/ENST 1170, in the context of remote instruction and participation, video and audio recordings of class activities will be made to ensure students' and instructors' easy and comprehensive access to those activities. The recordings are confidential and are intended only for the use of the course students and instructors. They may otherwise not be used or disclosed. During recording, to protect others' privacy, each student should ensure that no one else is present in the location where they are being recorded without that non-student's consent. The recordings are made under the authority of sections 3 and 14 of The Lakehead University Act, 1965. Questions about the collection of the images and sounds in the recordings may be directed to the Dean of Science and Environmental Studies, [ses@lakeheadu.ca](mailto:ses@lakeheadu.ca).

## **LU Accommodation Statement**

Lakehead University is committed to achieving full accessibility for persons with disabilities/medical conditions. Part of this commitment includes arranging academic accommodations for students with disabilities/medical conditions to ensure they have an equitable opportunity to participate in all of their academic activities. If you are a student with a disability/medical condition and think you may need accommodations, you are strongly encouraged to contact Student Accessibility Services (SAS) and register as early as possible. For more information, please email [sas@lakeheadu.ca](mailto:sas@lakeheadu.ca) or visit <https://www.lakeheadu.ca/faculty-and-staff/departments/services/sas>.