ENVS*1030 - Introduction to Environmental Sciences

Fall 2026 Course Outline
Section: 01
Credits: 1.00

Land Acknowledgement: Guelph

The University of Guelph resides on the ancestral lands of the Attawandaron people and the treaty lands and territory of the Mississaugas of the Credit. We recognize the significance of the Dish with One Spoon Covenant to this land and offer respect to our Anishinaabe, Haudenosaunee and Métis neighbours. Today, this gathering place is home to many First Nations, Inuit, and Métis peoples and acknowledging them reminds us of our important connection to this land where we work and learn.

Calendar Description

This course introduces students to what it means to think critically from an environmental sciences perspective. It covers an introduction to: philosophy of science, philosophy of the environment, the evaluation of scientific evidence, and scientific arguments. The course focuses on how we understand and recognize environmental problems, how we decide what to do about them, and what role science can and should play in these discussions.
Restriction(s): ENVS*1100. Registration in the BSC(Env) program or BBRM.EM.
Department(s): School of Environmental Sciences

Lecture Schedule

MonWedFri 4:30pm-5:20pm in MACN*105 (9/10 to 12/22)

Lab Schedule

Section	Day	Time	Location
0101	Wed	2:30 PM - 5:20 PM	MCKN 315
0102	Tue	2:30 PM - 5:20 PM	MINS 037
0103	Tue	8:30 AM - 11:20 AM	ROZH 109
0104	Tue	11:30 AM - 2:20 PM	MCKN 309
0105	Thu	2:30 PM - 5:20 PM	MCKN 305
0106	Mon	11:30 AM - 2:20 PM	MINS 101
0107	Fri	11:30 AM - 2:20 PM	MCKN 306
0108	Wed	11:30 AM - 2:20 PM	MCKN 305

Instructor Information

Neil Rooney
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Instructional Support Team

Lab Co-ordinator:

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Teaching Assistants:

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Teaching Assistant (GTA): Gillian Haig
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Cost of Textbooks and Learning Resources

Textbook / Learning Resource	Required / Recommended	Cost
None	None	$0

Course Learning Outcomes

1. The ability to describe the essential elements of proper scientific study design through: The discussion of course content during lecture periods, Designing and carrying out a scientific field study Course assignments and quizzes
2. An understanding of the options for employment in the environmental sciences sector through: The discussion of course content during lecture periods, An assignment that plots a course from undergraduate course selection to employment opportunities in the environmental science sector
3. The ability to describe the scientific process as it pertains to the environmental sciences through: The discussion of course content during lecture periods, Course assignments and quizzes
4. An understanding of how the philosophy of science can inform the environmental sciences through: The discussion of course content during lecture periods, Course assignments and quizzes
5. An appreciation for environmental ethics and the role that they play in the environmental sciences through: The discussion of course content during lecture periods, Course assignments and quizzes
6. The ability to determine the scientific evidence that underpins media portrayals of issues in the environmental sciences through: <ul> The discussion of course content during lecture periods Research and writing exercises that explore media portrayals of environmental issues
7. The demonstration of teamwork and oral communication skills through an analysis of the scientific evidence related to an environmental issue by arguing in a debate-style format
8. An appreciation of the broad nature of environmental science issues through: Attending online lectures that include guest scientists, Course assignments and quizzes
9. ***NOTE*** Course outcomes are slightly altered this year, as we have moved from a quiz format for evaluations to a midterm / final exam format.

University Learning Outcomes

In the process we will address a number of the University's Learning Objectives (see the Undergraduate Calendar), especially **Critical and Creative Thinking, Literacy,** and **Communicating**.

Lab / Seminar Schedule

Date	Topic
Week of September 14	No Lab
Week of September 21	Scientific study design (Assignment introduction)
Week of September 28	Scientific study design presentation
Week of October 5	Scientific study set-up
Week of October 12	No Lab
Week of October 19	No Lab
Week of October 26	Two activities this week: · Debate assignment introduction · Poster Workshop
Week of November 2	No lab

Week of November 9	Scientific study completion
Week of November 16	Debates
Week of November 23	Scientific study poster presentation

Teaching and Learning Activities

Dates	Topic
Fri, Sep 11	Introductory Class
Mon, Sep 14 - Fri, Sep 18	Experimental Design Principles in the Environmental Sciences
Mon, Sep 21 - Fri, Sep 25	Thinking Like a Scientist: Philosophy and Logic in Environmental Science
Mon, Sep 28 - Fri, Oct 2	Fundamental Principles of Environmental Science from Atoms to Ecosystems
Mon, Oct 5 - Fri, Oct 9	How We Know What We Know: Methods in Environmental Science
Wed, Oct 14 - Fri, Oct 16	Climate and Biogeochemical Cycles
Mon, Oct 19 - Fri, Oct 23	Ecosystem Structure and Function
Mon, Oct 26 - Fri, Oct 30	Anthropogenic Impacts and Environmental Change
Mon, Nov 2 - Fri, Nov 6	Sustainability, Management, and Policy
Month of November	Case studies in the Environmental Sciences
Mon Nov 30 - Fri Dec 2	Who or What Matters? Ethical Perspectives in Environmental Science
Throughout the semester	Guest speakers

Assessment Breakdown

Description	Due Date	Weight (%)
Group Contract 1	Week of September 21st (Day of Lab)	2.5
Scientific Study Design Presentation	Week of September 28th (Day of Lab)	5
The Job Search	October 9th	10
Midterm Exam	October 23rd	20
Group Contract 2	Week of Oct 26th (Day of Lab)	2.5
Media Article Analysis	October 30th	15
Debate	Week of November 16th (Day of Lab)	10
Poster Presentations	Week of November 23rd (Day of Lab)	15
Final Exam	TBD	20
Total		**100**

Last Day to Drop Course

The final day to drop Fall 2026 courses without academic penalty is the last day of classes: December 04

After this date, a mark will be recorded, whether course work is completed or not (a zero is assigned for missed tests/assignments). This mark will show on the student's transcript and will be calculated into their average.

Course Grading Policies

Grading Policies of Assignments

Written assignments and quizzes will be submitted via the dropbox on Courselink, before midnight on the due date. All late assignments will receive a 10% deduction for each day, or part thereof, that they are late. Contact Dr. Rooney if you wish to request an extension.

Course Policy on Group Work

You will work in groups for both the Scientific Study and the Debate assignments. Group members will draft and sign group contracts which will serve as the basis for agreed upon roles and responsibilities.

Standard Statements for Undergraduate Courses

Academic Integrity

The University of Guelph is committed to upholding the highest standards of academic integrity and it is the responsibility of all members of the University community – faculty, staff, and students – to be aware of what constitutes academic misconduct and to do as much as possible to prevent academic offences from occurring. University of Guelph students have the responsibility of abiding by the University's policy on academic misconduct regardless of their location of study; faculty, staff and students have the responsibility of supporting an environment that discourages misconduct. Students need to remain aware that instructors have access to and the right to use electronic and other means of detection.

Please note: Whether or not a student intended to commit academic misconduct is not relevant for a finding of guilt. Hurried or careless submission of assignments does not excuse students from responsibility for verifying the academic integrity of their work before submitting it. Students who are in any doubt as to whether an action on their part could be construed as an academic offence should consult with a faculty member or faculty advisor.

The Academic Misconduct Policy (https://calendar.uoguelph.ca/undergraduate-calendar/undergraduate-degree-regulations-procedures/academic-misconduct/) is outlined in the Undergraduate Calendar.

Accessibility

The University promotes the full participation of students who experience disabilities in their academic programs. To that end, the provision of academic accommodation is a shared responsibility between the University and the student.

When accommodations are needed, the student is required to first register with Student Accessibility Services (SAS). Documentation to substantiate the existence of a disability is required; however, interim accommodations may be possible while that process is underway.

Accommodations are available for both permanent and temporary disabilities. It should be noted that common illnesses such as a cold or the flu do not constitute a disability. Use of the SAS Exam Centre requires students to make a booking at least 10 business days in advance, and no later than November 1 (fall), March 1 (winter) or July 1 (summer). For students at the Guelph campus, information can be found on the SAS website. (https://www.uoguelph.ca/sas)

Accommodation of Religious Obligations

If you are unable to meet an in-course requirement due to religious obligations, please email the course instructor within two weeks of the start of the semester to make alternate arrangements.

See the Academic calendar for information on regulations and procedures for Academic Accommodations of Religious Obligations (https://calendar.uoguelph.ca/undergraduate-calendar/undergraduate-degree-regulations-procedures/academic-accommodation-religious-obligations/).

Copies of Out-of-class Assignments

Keep paper and/or other reliable back-up copies of all out-of-class assignments: you may be asked to resubmit work at any time.

Drop Date

Students will have until the last day of classes to drop courses without academic penalty. The deadline to drop two-semester courses will be the last day of classes in the second semester. This applies to all undergraduate students except for Doctor of Veterinary Medicine and Associate Diploma in Veterinary Technology (conventional and alternative delivery) students. The regulations and procedures for course registration are available in the Undergraduate Calendar - Dropping Courses (https://calendar.uoguelph.ca/undergraduate-calendar/undergraduate-degree-regulations-procedures/dropping-courses/).

Email Communication

As per university regulations, all students are required to check their <uoguelph.ca> e-mail account regularly: e-mail is the official route of communication between the University and its students.

Health and Wellbeing

The University of Guelph provides a wide range of health and wellbeing services at the Vaccarino Centre for Student Wellness (https://wellness.uoguelph.ca/). If you are concerned about your mental health and not sure where to start, connect with a Student Wellness Navigator (https://wellness.uoguelph.ca/navigators) who can help develop a plan to manage and support your mental health or check out our mental wellbeing resources (https://wellness.uoguelph.ca/shine-this-year). The Student Wellness team are here to help and welcome the opportunity to connect with you.

Illness

Medical notes will not normally be required for singular instances of academic consideration, although students may be required to provide supporting documentation for multiple missed assessments or when involving a large part of a course (e.g., final exam or major assignment).

Recording of Materials

Presentations that are made in relation to course work—including lectures—cannot be recorded or copied without the permission of the presenter, whether the instructor, a student, or guest lecturer. Material recorded with permission is restricted to use for that course unless further permission is granted.

Resources

The Academic Calendars (http://www.uoguelph.ca/registrar/calendars/?index) are the source of information about the University of Guelph's procedures, policies and regulations which apply to undergraduate, graduate and diploma programs.

When You Cannot Meet a Course Requirement

When you find yourself unable to meet an in-course requirement because of illness or compassionate reasons please advise the course instructor (or designated person, such as a teaching assistant) in writing, with your name, id#, and e-mail contact. See the Undergraduate Calendar for information on regulations and procedures for Academic Consideration. (https://calendar.uoguelph.ca/undergraduate-calendar/undergraduate-degree-regulations-procedures/academic-consideration-appeals-petitions/)