



ENVS*1040 - Natural History of the Great Lakes Region

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 is an introduction to the ecological regions, habitats and biodiversity of the Great Lakes watershed with a focus on Southern and Central Ontario. Beginning with a survey of the physical environment of the region, including topography, geomorphology and glaciation, soils, hydrology and climate, the course explores each of the major ecological regions and habitats of the watershed in terms of their defining characteristics and biological communities, including representative flora and fauna.

Restriction(s): Restricted to students in BIESP, BIESPC.

Department(s): School of Environmental Sciences

Course Description

This course examines the natural history of the Great Lakes region focusing on Ontario south of the Clay Belt. In the weekly labs students will be in the field looking at four habitats (woodland, wetland, meadow and urban) using a variety of observational approaches. Lectures will discuss the diversity of the region's landscapes, geology, habitats and biological communities. There are two major assignments for the course. In the One Square Metre Project students will make weekly or more frequent observations of a site and document the biological community and seasonal changes that they observe. In the Virtual Road Trip Project students will plan a trip across the region and explore the different landscapes and biological communities they would encounter using a variety of online resources. Both assignments extend over the entire semester. The course concludes with students making a short oral presentation on a selected aspect of their One Square Metre Project.

Lecture Schedule

MonWedFri 8:30am-9:20am in GRHM*1316 (9/10 to 12/22)

Lab / Seminar Schedule

<instructor can choose which table they'd like to use. **Title and Content within this block is fully editable & removeable**>

NOTE: To add another ROW, go to the bottom right cell of table and press 'tab' button. To delete a ROW contact courseleaf@uoguelph.ca

Day	Time	Location	Topic
Sept 17	2:30	Arboretum Kiosk	Meadow Lab 1: Meadow Walkabout and Field Safety
Sept 24	2:30	Arboretum Kiosk	Meadow Lab 2: Meadow Plant BioBlitz
Oct 1	2:30	Arboretum Kiosk	Meadow Lab 3: Meadow Insects and Arachnids BioBlitz
Oct 8	2:30	Arboretum Kiosk	Aquatic Lab 2: Pond Walk
Oct 15	2:30	Graham Hall 1316	Aquatic Lab 3: Pond and Stream Life BioBlitz



Oct 22	2:30	Graham Hall 1316	PROJECT DISCUSSION
Oct 29	2:30	Arboretum Kiosk	Forest lab 1: Arboretum Forest Walk and Tree ID Tree Identification
Nov 5	2:30	Arboretum Kiosk	Forest Lab 2: Litter Organisms BioBlitz
Nov 12	2:30	Arboretum Kiosk	Forest Lab 3: Forest Mensuration Exercise in Arboretum
Nov 19	2:30	Graham Hall 1316	Urban Climates - class discussion
Nov 26	2:30	Graham Hall 1316	NO LAB - free time for last-minute project discussion FINAL PRESENTATIONS ON 1m2 PROJECT - SPECIAL SCHEDULE DURING FINAL EXAM WEEK

Instructor Information

Andrew Young

Email: ayoung26@uoguelph.ca

Learning Resources

All materials for the course will be available on the CourseLink site, including extended versions of the lecture presentations with additional material and suggested readings. In addition links to a variety of online resources will be provided.

All detailed assignment instructions and marking rubrics will be posted on the CourseLink site

There is no textbook for the course.

A wide variety of other field guides will be available for reference in hard copy or online.

Each student will be provided with a hand-held magnifier for the duration of the semester.

Students are expected to wear seasonally appropriate clothing for field work. Sandals and other open footwear should not be worn.

Cost of Textbooks and Learning Resources

Textbook / Learning Resource	Required / Recommended	Cost
no textbook required		

Students are advised that prices are often determined by the publisher or bookstore and may be subject to change.

Course Learning Outcomes

1. Recognize and characterize the major ecological regions and habitats of the Great Lakes Region with respect to their physical and biological features, including topography, geology, key species complexes, and their interrelationships.
2. Discuss the historical and current environmental impacts of human settlement and economic activities on the Great Lakes Region.
3. Use a variety of observational and analytical methods to characterize the physical environment and biodiversity.
4. Report on the interactions of the abiotic and biotic components of local ecological assemblages.
5. Reflect upon and discuss their relationship to a locality in terms of their understanding of and interactions with its biotic and abiotic constituents.



Assessment Breakdown

{NOTE: instructor can add another row by hitting "TAB" button when they are at the end of the row}

Description	Weighting (%)	Due Date
One Metre Square Location	0%	Wednesday, Sept 16
One Metre Square Progress Report 1	5%	Monday, Sept 28
One Metre Square Progress Report 2	5%	Monday, Oct 12
One Metre Square Progress Report 3	5%	Thurs, Nov 12
One Metre Square Final Report	15%	Fri, Nov 27
One Metre Square Presentation	10%	TBD
Virtual Road Trip Proposal	0%	Friday, Sept 18
Virtual Road Trip Progress Report 1	5%	Wed, Oct 2
Virtual Road Trip Progress Report 2	5%	Mon, Oct 19
Virtual Road Trip Progress Report 3	5%	Mon, Nov 16
Virtual Road Trip Final Report	15%	Fri, Dec 11
Meadow Non-Native Species Assignment	10%	Fri, Oct 16
Forest Mensuration Assignment	10%	Mon, Nov 23
Lab participation	10%	-

Assessment Details

One Metre Square Location

One Metre Square Location

- Due: Wed, Sept 16, Submitted Online

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Provide instructors with location of site

Course Learning Outcomes Assessed: 1, 3, 4, 5

One Metre Square Progress Report 1

One Metre Square Progress Report 1

- Due: Mon, Sep 28, Submitted Online

5

The report should contain the following:

- A map showing the location of the site
- A sketch map of the site
- Your journal entry for Week 1
- Examples of the plants, fungi, and animals that you have observed at the site.

We will be communicating with students individually to provide feedback after they submit their preliminary reports.

Course Learning Outcomes Assessed: 1, 3, 4, 5

One Metre Square Progress Report 2

One Metre Square Progress Report 2

- Due: Mon, Oct 12, Submitted Online

The report should contain the following:

- Your journal entries for weeks 2, 3 and 4.
- A revised map of the site.

5

We will be communicating with students individually to provide feedback after they submit their preliminary reports.



Course Learning Outcomes Assessed: 1, 3, 4, 5

One Metre Square Progress Report 3

One Metre Square Progress Report 3

- Due: Thu, Nov 12, Submitted Online

5

The report should contain the following:

- Any two journal entries for weeks 5, 6, 7 or 8.

We will be communicating with students individually to provide feedback after they submit their preliminary reports.

Course Learning Outcomes Assessed: 1, 3, 4, 5

One Metre Square Final Report

One Metre Square Final Report

- Due: Fri, Nov 27, Submitted Online

15

Length:

1500-1800 words, *not including references*.

Content: The final report is an opportunity for you to summarize and reflect upon the observations you made during the semester, what you discovered about the site, and your own interactions with the site.

Course Learning Outcomes Assessed: 1, 3, 4, 5

One Metre Square Presentation

One Metre Square Presentation

Date: TBD

10

At the end of the semester (During the exam weeks, to be scheduled) you will make a short presentation to the class about your site. The presentation should focus on aspects that you found important or unusual. It should not be a catalogue or list of species or observations. For example, you might choose to report on an interaction or association that intrigued you or on the relationship between the site and its surroundings or on the succession of changes that occurred over the course of semester. You may also discuss your personal relationship to the site and how this changed (or didn't), *but this is entirely optional*. The presentation should be about 10 minutes in duration. We will discuss preparing presentations during the class.

Course Learning Outcomes Assessed: 1, 3, 4, 5

Virtual Road Trip Proposal

Virtual Road Trip Proposal

- Due: Fri, Sep 18, Submitted Online

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Please provide the instructors with the proposed start and end points of your trip.

Course Learning Outcomes Assessed: 1, 2, 5

Virtual Road Trip Progress Report 1

Virtual Road Trip Progress Report 1

- Due: Wed, Oct 2, Submitted Online

5

Content:

1. A draft map showing your proposed route.
2. A list of your pit stops (Appendix 1).

We will be providing feedback on these materials.

Please contact the instructors if you are encountering any difficulties or obstacles to completing the project or require clarification about the requirements.

Course Learning Outcomes Assessed: 1, 2, 5



Virtual Road Trip Progress Report 2

Virtual Road Trip Progress Report 2

5

- Due: Mon, Oct 19, Submitted Online

Content:

1. Drafts of two pit stop visitor guides or pamphlets.
2. A draft map showing your proposed route.
3. A sample of your travelogue chart.

We will be providing feedback on these materials. Please contact the instructors if you are encountering any difficulties or obstacles to completing the project or require clarification about the requirements.

Course Learning Outcomes Assessed: 1, 2, 5

Virtual Road Trip Progress Report 3

Virtual Road Trip Progress Report 3

5

- Due: Mon, Nov 16, Submitted Online

Content:

1. The drafts of five pit stop visitor guides not submitted with Progress Report
2. A sample of your travelogue (minimum of 250 words).
3. A revised map showing your proposed route.

We will be providing feedback on these materials. Please contact the instructors if you are encountering any difficulties or obstacles to completing the project or require clarification about the requirements.

Course Learning Outcomes Assessed: 1, 2, 5

Virtual Road Trip Final Report

Virtual Road Trip Final Report

15

- Due: Fri, Dec 11, Submitted Online

Content:

The final report consists of three parts:

1. A final version of the map of your Trip.
2. The final version of your travelogue or a narrative account of your trip.
3. A final version of the ten pit stops visitor's guides or pamphlets.

Course Learning Outcomes Assessed: 1, 2, 5

Meadow non-native species assignment

Meadow non-native species assignment

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Due: Friday, Oct 16

The assignment is to create a visual presentation consisting of 15-20 slides with a separate accompanying list of references. The presentation should include pictures, graphs and other relevant illustrations as well as point-form text. You should include additional speakers notes as appropriate to expand selected topics and ideas.

Course Learning Outcomes Assessed: 2, 3, 4, 5

Forest mensuration assignment

Forest mensuration assignment

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Due: Mon Nov 23

This assignment will use the wandering quarter method to determine differences in



community structure between two forest sites. We will also consider the reproducibility of the method by having two teams sample the same area. The data collected can be used to calculate several common measures of plant community structure, including species richness, species diversity, relative basal area, stems per hectare and relative dominance.

Course Learning Outcomes Assessed: 2, 3, 4, 5

Lab participation

Lab participation

Marks will be given for attending and contributing to labs.

10

Course Learning Outcomes Assessed: 1, 2, 3, 4, 5

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

Late Assignments

Assignments that are submitted late without an approved reason (medical, personal) or prior approval of the instructors will not have marks deducted from their grades. HOWEVER, I cannot guarantee written feedback on assignments that are submitted late. Students encountering challenges in completing assignments on time are strongly encouraged to contact the instructor as soon as possible for support.

Course Standard Statements

Safety

Students should be aware that we will be walking outdoors in the Arboretum for extended periods. Appropriate clothing and sun protection should be worn. Open shoes such as sandals are not suitable. Students with allergies (pollen, bees, etc.) should discuss any concerns and precautions with the instructors.

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/>)