



Welcome to ENVS Field School

Faculty of Science Course Syllabus
Department of Earth and Environmental Sciences
ENVS 3001 - Environmental Science Field School
August 18 – August 29, 2025

Dalhousie University acknowledges that we are in Mi'kma'ki, the ancestral and unceded territory of the Mi'kmaq People and pays respect to the Indigenous knowledges held by the Mi'kmaq People, and to the wisdom of their Elders past and present. The Mi'kmaq People signed Peace and Friendship Treaties with the Crown, and section 35 of the Constitution Act, 1982 recognizes and affirms Aboriginal and Treaty rights. We are all Treaty people.

Dalhousie University also acknowledges the histories, contributions, and legacies of African Nova Scotians, who have been here for over 400 years.

Instructors:

Dr. Sue Gass
Ben Collison

sue.gass@dal.ca
b.collison@dal.ca

Office: LSC 3082
Office: Rowe 5058

Student Support and Office Hours:

We will see you every day during the course and therefore we don't hold typical office hours. If there is something that you would like to discuss outside of class time, please send both/either instructors an email, and we can arrange a time to meet.

Teaching assistants:

Lauren Gover
Elliot Ankersen

lgover@dal.ca
alexander.akersen@dal.ca

Course delivery:

This is a field course which will take place in-person on campus with daytime field trips from campus and over a four-night/five-day trip to Kejimikujik National Park in Southwest Nova Scotia. Our home base while on campus is LSC Biology Tower Room 2055.

*****Please check Brightspace daily*****

All announcements and changes to the schedule will be posted on Brightspace.

Statement of Respect

Students in this class are encouraged to speak up and participate during class and outings. The class will represent a diversity of individual backgrounds and experiences. Every member of this class must show respect for every other member of this class. Diverse perspectives are appreciated and welcomed as we learn more from each other this way.

Course Description

Credit Hours: 3

This course will help you develop the expertise you need on your journey to becoming Environmental Scientists. You will learn and practice a range of field methods used by Environmental Scientists, while also considering Indigenous ways of living in nature and two eyed seeing. You will meet several Environmental Science professionals (ask them lots of questions), and you will work in teams and develop your teamwork and organizational skills. We hope you will also develop a deeper connection with the natural environment in Mi'kma'ki and with your classmates, TAs, and instructors.

Field trips introduce methods used to research environmental processes at diverse sites within Mi'kma'ki (Nova Scotia). The first 5 days (Monday-Friday) will include lectures on campus and field trips within Halifax Regional Municipality. The days will run from approximately 8:30am to 5pm (plus homework). Saturday will be a day off to pack and prepare for the camping trip. Sunday-Thursday will be a four night/five-day trip to Kejimikujik National Park. The final day (Friday) we will meet back on campus. See Brightspace for a detailed schedule.

Course Prerequisites

ENVS 2100 and must be an ENVS major or double major student

Course Objectives/Learning Outcomes

- Use navigational tools such as compass, GPS, and other mapping tools
- Conduct a range of field methods used to monitor biological populations and ecosystems
- Identify relevant ethical issues when conducting field work with wildlife
- Demonstrate best practice for writing field notes
- Analyze field data
- Implement two-eyed seeing into your Environmental Science work
- Develop a deeper personal connection with the natural world in Mi'kma'ki
- Carry out standard methods used to describe forest ecosystems
- Carry out standard methods to monitor freshwater ecosystems
- Create a taxonomic key
- Work effectively in a team
- Communicate findings with peers through an oral presentation

Course Materials

East Coast Trees and Shrubs – J.C. Domm (2021) - Required – available at the Dal SUB Bookstore

Elapultiek – shalan joudry (2019) - Required – available at the Dal SUB Bookstore

A field notebook – you can purchase these from the bookstore or find something online – we recommend waterproof paper.

Readings will be provided on-line through Brightspace.

Course Assessment

- Quizzes: 10%
- Participation: 20%
- Field notebooks: 25%
- Assignments: 30%
- Final group project: 15%

All assignments will be submitted individually except for the final project which will be presented and submitted as a group.

Quizzes – 10%

There will be five quizzes. Four will test your knowledge of the assigned readings. A fifth quiz will test your ability to identify native coniferous trees.

Quiz	Value %	Quiz Date	Type
1 – Doing Field Work and Writing About It / Field Safety	2	Monday August 18	Multiple choice
2 – Restoring the Acadian/Wabanaki Forest	2	Tuesday August 19	Multiple choice
3 – Freshwater monitoring	2	Wednesday August 20	Multiple choice
4 – Sampling Static Organisms	2	Friday August 22	Multiple choice
5 – Coniferous tree identification and History of Mi'kma'ki podcast	2	Sunday August 24	Multiple choice

Commented [BC1]: Remove?

Participation – 20%

Much of this course involves learning by doing and thus you must actively participate in all the course activities in order to learn as much as you can throughout the course. In addition, environmental scientists do not work in isolation; therefore, working effectively with others in a team is a valuable skill to develop. The following parameters will be assessed for the participation portion of the grade:

- Being punctual
- Bringing all required equipment to class and on field trips
- Being safe

- Being respectful of the contributions of others in the course, the instructors, and speakers
- Participating willingly in activities while allowing others to participate as well
- Using your phones respectfully and not looking at your phone during a presentation
- Asking instructors/speakers questions
- Responding to questions
- Providing ideas and helping to solve problems
- Demonstrating familiarity with the readings

Additional course components that contribute to participation points:

- Field trip risk assessment at the beginning of each field trip
- Orienteering assignment
- Debrief discussions at the end of each field day

Field Notebooks – 25%

You will document relevant scientific information (e.g. observations, methods, data) as well as your personal reflections in your field notebooks. The notes you take in the field are an extension of your memory. No matter how much you think you will be able to remember some of the remarkable observations made in the field, your memory fades with time. Your field notebooks play an important role in recalling detailed information from the field, including specific data you collect. They must be legible and organized so a colleague will also be able to interpret your notes. It is therefore extremely important to have well organized and detailed field notes. Your field notes will also include a documentation of your personal learning journey throughout the course. Further instructions can be found on Brightspace.

Assignments – 30%

Assignment	Value %	Due Date
Coniferous tree ID guide	10	August 21 8am
Freshwater monitoring	10	August 22 8am
Species accumulation curve	10	August 24 9am

Final project – 15%

The final project is a group project in which you will carry out standard methods used to describe forest ecosystems. It will take place over our last day at Keji. You will apply the knowledge you have gained in the course thus far to describe and characterise a forest ecosystem in Mi'kma'ki/Nova Scotia. You will present your findings to the class in a group presentation.

Conversion of numerical grades to final letter grades follows the

[Dalhousie Grade Scale](#)

A+ (90-100)	B+ (77-79)	C+ (65-69)	D (50-54)
A (85-89)	B (73-76)	C (60-64)	F (0-49)
A- (80-84)	B- (70-72)	C- (55-59)	

Course Policies

Attendance every day is mandatory. A missed class is very serious. Each unexcused absence will result in a deduction of 15% from your final grade in addition to any missed assignments. Being late for class will also lead to deduction in participation marks, and we will not wait for late students if we are leaving on a field trip. If you are feeling unwell, exceptions can be made. Please let the instructors know as early as possible if you are staying home because of sickness. However, if too many days are missed due to sickness, it may become difficult to complete the course. A student must attend the four-night/five-day trip to Kejimikujik to complete the course.

Late assignments

It is important to stay on top of the assignments and quizzes in this course as it is a fast-paced course where we cover a lot in two weeks. If you are unable to complete an assignment on time, please get in touch with the instructors as soon as possible to discuss your late submission options. Assignments submitted 1 day late will be deducted 15%. Assignments will not be accepted more than 1 day after the deadline and will receive 0%.

Accommodations

This is a fast-paced course. Every day we will be learning new knowledge and skills. You can expect each day to run from approximately 8:30 am to 5 pm with homework. While we are away on our overnight trip, there will also be some evening activities.

We hope you will all enjoy the hands-on learning and spending lots of time outdoors. You should note that because of the nature of the course, you may find yourself in situations that require physical and mental demands that you are not used to. For example, we will walk and work outdoors for extended periods. Work continues in inclement weather if it is deemed safe to do so. We will be sleeping in shared tents/cabins for four nights and cook and eat meals together with the rest of the class. You will also be expected to travel in a vehicle with other students and instructors, and we usually drive for one to two hours before taking a break. We will also be over an hour away from the nearest hospital on several occasions.

If you have any medical conditions or require academic accommodations to be successful in any of these situations, or which may put your health at risk, then it is important that you seek

accommodations through the student accessibility centre at least 6 weeks prior to the start of the course. We are committed to the success of everyone in this course. However, last minute accommodation requests can be very difficult to figure out so we would really appreciate it if we can receive your accommodation needs as early as possible. If you're unsure if you'll need accommodations, we're happy to meet and review the course requirements to help in your decision-making process.

Quality of work

Sometimes field school may feel informal because we are working outdoors and having fun, but that does not mean that we do not expect a high level of achievement with each quiz/assignment/field notebooks. Please keep in mind that you are working towards becoming a professional Environmental Scientist, who will be able to effectively work in a team, accurately record field observations, and communicate clearly in writing and orally, so now is a great time to hone these skills.

University Policies and Statements

Recognition of Mi'kmaq Territory

Dalhousie University would like to acknowledge that the University is on Traditional Mi'kmaq Territory. The Elders in Residence program provides students with access to First Nations elders for guidance, counsel, and support. Visit or e-mail the Indigenous Student Centre at 1321 Edward St or elders@dal.ca. Additional information regarding the Indigenous Student Centre can be found at: https://www.dal.ca/campus_life/communities/indigenous.html

Internationalization

At Dalhousie, 'thinking and acting globally' enhances the quality and impact of education, supporting learning that is "interdisciplinary, cross-cultural, global in reach, and orientated toward solving problems that extend across national borders." Additional internationalization information can be found at: <https://www.dal.ca/about-dal/internationalization.html>

Academic Integrity

At Dalhousie University, we are guided in all our work by the values of academic integrity: honesty, trust, fairness, responsibility, and respect. As a student, you are required to demonstrate these values in all the work you do. The University provides policies and procedures that every member of the university community is required to follow to ensure academic integrity. Additional academic integrity information can be found at: https://www.dal.ca/dept/university_secretariat/academic-integrity.html. You should note that AI tools don't understand environmental science very well – they produce inaccurate and incomplete information. They also may stifle your own independent thinking and creativity. You can use AI tools to assist your learning but note the aforementioned warnings. You may not submit any work generated by an AI tool as your own in this course. This is considered an academic integrity offence. All forms of cheating will be dealt with under relevant Dalhousie University policies.

Accessibility

The Student Accessibility Centre is Dalhousie's centre of expertise for matters related to student accessibility and accommodation. If there are aspects of the design, instruction, and/or experiences within this course (online or in-person) that result in barriers to your inclusion, please contact the Student Accessibility Centre (https://www.dal.ca/campus_life/academic-

[support/accessibility.html](#)) for all courses offered by Dalhousie with the exception of Truro. For courses offered by the Faculty of Agriculture, please contact the Student Success Centre in Truro (<https://www.dal.ca/about-dal/agricultural-campus/student-success-centre.html>)

Conduct in the Classroom – Culture of Respect

Substantial and constructive dialogue on challenging issues is an important part of academic inquiry and exchange. It requires willingness to listen and tolerance of opposing points of view. Consideration of individual differences and alternative viewpoints is required of all class members, towards each other, towards instructors, and towards guest speakers. While expressions of differing perspectives are welcome and encouraged, the words and language used should remain within acceptable bounds of civility and respect.

Diversity and Inclusion – Culture of Respect

Every person at Dalhousie has a right to be respected and safe. We believe inclusiveness is fundamental to education. We stand for equality. Dalhousie is strengthened in our diversity. We are a respectful and inclusive community. We are committed to being a place where everyone feels welcome and supported, which is why our Strategic Direction prioritizes fostering a culture of diversity and inclusiveness (Strategic Priority 5.2). Additional diversity and inclusion information can be found at: <http://www.dal.ca/cultureofrespect.html>

Student Code of Conduct

Everyone at Dalhousie is expected to treat others with dignity and respect. The Code of Student Conduct allows Dalhousie to take disciplinary action if students don't follow this community expectation. When appropriate, violations of the code can be resolved in a reasonable and informal manner - perhaps through a restorative justice process. If an informal resolution can't be reached, or would be inappropriate, procedures exist for formal dispute resolution. The full Code of Student Conduct can be found at: https://www.dal.ca/dept/university_secretariat/policies/student-life/code-of-student-conduct.html

Fair Dealing Policy

The Dalhousie University Fair Dealing Policy provides guidance for the limited use of copyright protected material without the risk of infringement and without having to seek the permission of copyright owners. It is intended to provide a balance between the rights of creators and the rights of users at Dalhousie. Additional information regarding the Fair Dealing Policy can be found at: https://www.dal.ca/dept/university_secretariat/policies/academic/fair-dealing-policy-.html

Originality Checking Software

The course instructor may use Dalhousie's approved originality checking software and Google to check the originality of any work submitted for credit, in accordance with the Student Submission of Assignments and Use of Originality Checking Software Policy. Students are free, without penalty of grade, to choose an alternative method of attesting to the authenticity of their work and must inform the instructor no later than the last day to add/drop classes of their intent to choose an alternate method. Additional information regarding Originality Checking Software can be found at: https://www.dal.ca/dept/university_secretariat/policies/academic/student-submission-of-assignments-and-use-of-originality-checking-software-policy-.html

Student Use of Course Materials

Course materials are designed for use as part of this course at Dalhousie University and are the property of the instructor unless otherwise stated. Third party copyrighted materials (such as books, journal articles, music, videos, etc.) have either been licensed for use in this course or fall under an exception or limitation in Canadian Copyright law. Copying this course material for distribution (e.g. uploading to a commercial third-party website) may lead to a violation of Copyright law.