

Geographic Information Science & Spatial Data

Department of Earth & Environmental Sciences

ENVS / EARTH / GEOG 3500 Summer 2026

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.

Teaching Team

Name	Email	Student Hours
Christopher Greene, PhD <i>Course Instructor</i>	Chris.Greene@dal.ca	TBD
Emma Taniguchi <i>Teaching Assistant</i>	emmataniguchi@dal.ca	N/A
Bay Berry <i>Marker / Demonstrator</i>	bay.berry@dal.ca	N/A

Course Description

Geographic Information Systems (GISystems) provide a powerful platform to process and analyze data with locational information. This course introduces theoretical concepts in Geographic Information Science (GIScience) that provide the foundation for the creation, management, and visualization of geospatial data for a range of disciplines (e.g., Earth Sciences, Environmental Science, Biology, Planning). Topics include principles of spatial object types, spatial data models, concepts of error and uncertainty, overlay, and the integration of satellite derived data (GPS, Remote Sensing Imagery) in spatial projects. Laboratory exercises emphasize how these principles are put into practice in the use of Geographic Information Systems.

Course Prerequisites

Two years of university study or equivalent or instructor's permission

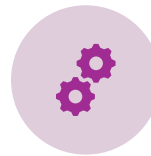
Course Exclusions

Credit will only be given for one of EARTH 3500.03, EARTH 5600.03, GEOG 3500.03, SCIE 3600.03 or ENVS 3500

Learning Objectives



Recognize and describe how geographic information science governs (or should govern) the use of geographic information systems.



Recognize and describe the components (and component functions) of geographic information systems.



Explain and demonstrate how geographic data is generated, managed, modified, visualized.



Critique the quality of geovisualization from a range of sources (popular media, memes, peer-reviewed manuscripts).



Conduct basic, non-inferential spatial analysis using GIS software.



Compare / contrast how geographic information systems can be used to aid decision-making across several disciplines.

Student Resources

Student Hours for the Course Instructor are booked through the MS-BOOKINGS site for Dr. Greene's courses (<https://bit.ly/3C06Pda>). Appointments are booked for 20-minute time slots.

Students in this class will be given **card access to LSC-3111** and may work in this space from 8:30 am to 5:00 pm when the lab is not in use, including weekends. Please note that the alarm for the lab auto-arms everyday and if you linger too long you will trigger the alarm.

Students **also may access the Elizabeth May Centre for Geocomputation** (LSC-2012) from 7:00 am to 10:00 pm as an alternative working space (the door code for LSC-2012 will be provided to students in the classroom setting).

Both LSC-3111 and 2012 are academic computing labs and intended for those purposes only. It's fine to take a breather from your work and check the news, social media, etc. However extended time spent on non-academic activities like gaming (local or online) are not permitted and you will be asked to relocate. Other lab policies (non-teaching times) include:

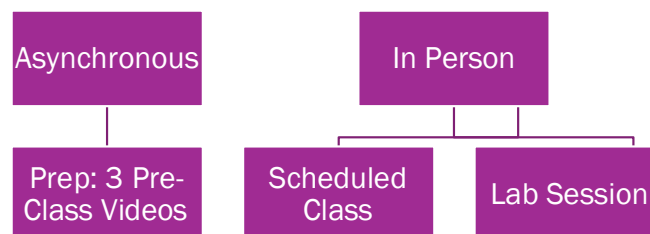
- No food permitted at terminals. Drinks in closed lid containers are allowed.
- Conversations with neighbours are fine but be respectful of other students.
- Use headphones if watching lecture videos, when listening to music, etc.
- Do not provide access to the lab to unauthorized people.

The **GIS Centre (located on the 5th floor of the Killam Library)** also supports this class by providing access to additional applied help during normal business hours (in person 10 am - 4 pm; virtual 9 am to 4 pm). Appointments with a staff member for help on workshops or projects can be booked through their MS-BOOKINGS page (<https://bit.ly/3OM7dDI>). It is also critical to note that the GIS Centre assists with applied parts of the course only; staff do not assist in answering theory-related questions on class deliverables.

Course Structure

Course Delivery

This course employs a **blended delivery model**, with both **required synchronous and asynchronous elements** to the class. Moreover, the synchronous elements of the class are designed for in-person delivery with several deliverables requiring in-person attendance to complete (i.e., weekly exercises, two term tests).



Finally, this course employs the ESRI platform ArcGIS Pro™. As a U.S.-based Company ESRI observes embargoes placed on several countries by the U.S. government and do not permit exporting / use of the software in those embargoed nations for non-government users. Taken from ESRI's Export Compliance material:

"In addition, ENC products are eligible for export to any nongovernment customer in all destinations except the embargoed countries: Cuba, Iran, North Korea, Syria, Russia, Belarus, and the Regions of Crimea, Donetsk People's Republic, and Luhansk People's Republic of Ukraine."

Lectures / Active Learning

In person sessions are held Tuesdays and Thursdays from 10:35 am to 11:55 am in LSC-3111. This room is the new computer lab in the east wing of the BIO-EES wing of the Life Sciences Centre. In person tests will be held in an alternative location.

Laboratories

A three-hour in-person lab section is also held Tuesdays and Thursdays from 1:05 pm to 3:55 pm in the same classroom (LSC-3111). Students are permitted to contact the Teaching Assistant via MS-TEAMS with questions during this lab section if they are unable to attend an in-person lab session.

Course Materials

Recommended Textbook

Longley, P. A., Goodchild, M. F., Maguire, D. J., & Rhind, D. W. (2015). *Geographic Information Science and Systems* (4th ed.). Wiley Publishing. Available as an e-book through the Killam library at <https://bit.ly/3pLRN53>.

Software

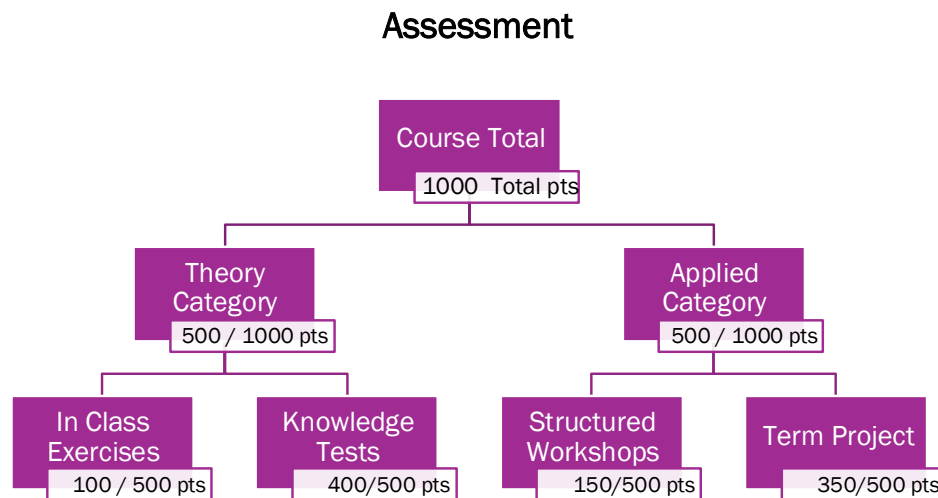
Access to ArcGIS Pro™ 3.5.1 is required and is installed on all Dalhousie campus machines (e.g., the Elizabeth May Teaching Lab, the Wallace McCain Learning Common, Killam Library). The software may also be available to you on your own computer through two alternative methods¹:

- 1) **Downloading ArcGIS Pro™** through the Dalhousie Software resources to run on a Windows Operating System (<https://software.library.dal.ca/>). It is important to double-check the hardware requirements for the software if using this approach (<https://bit.ly/3jGbk4k>) as video capacity (recommended minimum is a 4GB GPU) tends to be a common limitation. Using a local install also requires the Dalhousie Virtual Private Network to be installed and active while running ArcGIS Pro™.
- 2) **Web Delivered Access** through a strong, stable broadband connection in a virtual lab environment (<https://apps.vlab.dal.ca/>, use: ArcGIS). This method can be used by either Windows or Mac operating systems through a downloadable client, or through a web browser. This method is not intended to be the primary access method to the software but is meant to provide short term access for smaller tasks.

¹ If using either of these options, students are responsible for ensuring they have either an appropriate Windows capable machine at home and / or a stable broadband internet connection (ethernet strongly recommended) to use VMWare.

Digital Storage

Because campus terminals are “frozen”, students will need to save their work to an external location like their Dalhousie OneDrive or to an external USB drive (best practice is to save duplicates in separate locations). I recommend bringing a 64 GB Minimum USB drive (USB-3.0 recommended) to use exclusively for this course to provide an additional save method to OneDrive for applied work.



Assignments

Applied – Small Value Lab Deliverables (150 pts.): Standalone, structured exercises completed in a single lab session with a deliverable such as a single map or worksheet to be evaluated. Workshop deliverables are due the following day at 5:00 pm (+25 hours from the end of the lab section).

Workshops: Why do we do These Assessments?

These small exercises introduce and develop fundamental GIS techniques and data management practices in a prescribed manner to help prepare for the larger Independent Lab Project.

Applied – One Independent Term Projects (350 pts.): One larger, multiple lab session project, requiring students to select and apply techniques learned in the previous standalone, structured exercises. This project has two components:

- Part 1 – Preliminary Report (100 pts.) – Due Sunday, May 31st. at 5:00 pm
- Part 2 – Final Report (250 pts.) – Due Monday, June 29th, at 5:00 pm.

Independent Term Project: Why do we do This Assessment?

These projects are intended encourage students to deconstruct skills learned in workshops and reorganize those tasks to a larger workflow. The project also provides practice integrating and contextualizing analytical outputs in a professional product (e.g., PowerPoint Presentation, Technical Report, Story Map).

Synchronous Session – In Class Exercises (100 pts.): Weekly pen & paper exercises completed and discussed in the lecture section of the class. These exercises are pass / fail and intended to reinforce specific lecture topics or to demonstrate how the software executes an operation on one or more inputs.

Active Learning Exercises: Why do we do These Assessments?

While these exercises encourage attendance, the active learning approach provides an opportunity to highlight key topics for additional focus and provide a critical bridge between the prerecorded lecture and the lab setting.

Knowledge Tests

Students will complete two written tests for a total of 400 pts. Each test is valued at 200 pts towards the final grade and largely structured as short/long answer format. Tests are held during the scheduled in person sessions (though in an alternate location) and have an 85-minute time limit.

- Test 1 (200 pts) – Tuesday, June 2nd, 2026. Content = Lectures 1.1 through 3.3.
- Test 2 (200 pts.) – Tuesday, June 23rd, 2026. Content = Lectures 3.4 through 5.6.

Content on Test 2 is not fully “cumulative” but does rely on several scaffolded topics from the previous test that carries through the entire term and underpin later concepts.

Knowledge Tests: Why do we do These Assessments?

An important theme of this class is that GIScience is not software button pressing, but understanding best practices in the creation, management, and visualization of spatial data. Best practices are informed by GIScience theory, which these assessments can directly evaluate.

Final Exam

There is no final exam for this course. However, a makeup slot is scheduled for 1:05 pm to 2:55 pm on Monday, June 29th, 2026 for students missing one term test with valid reasons.

Course Content

Conditional release rules have been applied to lecture content. The first narrated lecture and slide deck of every module is open, but subsequent lectures and slide decks for the module will not unlock until the previous lecture has been completed. In other words, 1.2 will not be available until 1.1 has been completed; 1.3 will not be available until 1.2 has been completed, etc. The cycle repeats at the start of each module.

Class	Date	Prep	Schedule
1	12-May-26	-	Morning: Class Overview, Onboarding Afternoon: SWS-1*
2	14-May-26	Lectures 1.1 to 1.3	Morning: Lecture / In Class Exercise Afternoon: SWS-2*
3	19-May-26	Lectures 1.4 to 1.6	Morning: Lecture / In Class Exercise Afternoon: SWS-3*
4	21-May-26	Lectures 2.1 to 2.3	Morning: Lecture / In Class Exercise Afternoon: SWS-4*
5	26-May-26	Lectures 2.4 to 2.6	Morning: Lecture / In Class Exercise Afternoon: Project Part 1 Working**
6	28-May-26	Lectures 3.1 to 3.3	Morning: Review / In Class Exercise Afternoon: Project Part 1 Working
7	02-Jun-26	-	Morning: Term Test 1 Afternoon: SWS-5*
8	04-Jun-26	Lectures 3.4 to 3.6	Morning: Lecture / In Class Exercise Afternoon: SWS-6*
9	09-Jun-26	Lectures 4.1 to 4.3	Morning: Lecture / In Class Exercise Afternoon: SWS-7
10	11-Jun-26	Lectures 4.4 to 4.6	Morning: Lecture / In Class Exercise Afternoon: SWS-8
11	16-Jun-26	Lectures 5.1 to 5.3	Morning: Lecture / In Class Exercise Afternoon: SWS-9
12	18-Jun-26	Lectures 5.4 to 5.6	Morning: Review / In Class Exercise Afternoon: Project Part 2 Working**
13	23-Jun-26	-	Morning: Term Test 2 Afternoon: Project Part 2 Working
14	25-Jun-26	-	Morning: Project Part 2 Working Afternoon: Project Part 2 Working
15	29-Jun-26		No In Person Commitment Final Project Report Due

*Workshop deliverables are due the day following the workshop at 5:00 pm.

**Attendance at the first processing working session can earn an additional discretionary extension towards the project deliverable that working session is intended for.

Topic List

Module 1

1-1 Geographic? Geospatial? Geomatics?

1-2 Geographic Information Science & Systems

1-3 The Anatomy of a Map

1-4 Conceptualizing Space

1-5 Beyond Latitude and Longitude

1-6 Spatial Reference Systems

Module 2

2-1 Adding Location to Analog Sources

2-2 The Three Segments of Global Navigation Satellite Systems

2-3 Resolving Location with Global Navigation Satellite Systems

2-4 Dilution of Precision / Sources of Error

2-5 Representing Features Digitally

2-6 Binary Storage & Levels of Measurement

Module 3

3-1 Introduction to Thematic Mapping

3-2 Choropleth Maps – Classification

3-3 Choropleth Maps – Data Standardization

3-4 Uncertainty – Real-World to Conception

3-5 Uncertainty – Conception to Representation

3-6 Uncertainty – Representation to Analysis

Module 4

4-1 Introduction to Spatial Analysis

4-2 Relational Database Functions

4-3 Geographic Extensions to Databases

4-4 Spatial Analysis - by Location, Distance

4-5 Spatial Analysis – Vector Overlay

4-6 Spatial Analysis – Raster Overlay

Module 5

5-1 Surface Analysis – Foundations

5-2 Surface Analysis – Elevation Models

5-3 Surface Analysis – More Elevation Functions

5-4 Remote Sensing – Electromagnetic Radiation

5-5 Remote Sensing – Data Structure

Other Course Requirements,

Students must pass both the theory and applied categories of the course. In other words, students must earn 250 of the 500 total points in the theory portion of the class and earn 250 of the 500 total points in the applied portion of the class to complete the course. Students that do not achieve this combined threshold will not complete the class and be assigned an F regardless of the total number of points earned.

Grade	Range	Definition and Expectations
A+	90-100	Excellent: Considerable evidence of original thinking; demonstrated outstanding capacity to analyze and synthesize; outstanding grasp of subject matter; evidence of extensive knowledge base.
A	85-89	
A-	80-84	
B+	77-79	Good: Evidence of grasp of subject matter, some evidence of critical capacity and analytical ability; reasonable understanding of relevant issues; evidence of familiarity with the literature.
B	73-76	
B-	70-72	
C+	65-69	Satisfactory: Evidence of some understanding of the subject matter; ability to develop solutions to simple problems; benefitting from his/her university experience.
C	60-64	
C-	55-59	
D	50-54	Marginal Pass: Evidence of minimally acceptable familiarity with subject matter, critical and analytical skills (except in programs where a minimum grade of 'C' is required).
F	<50	Inadequate: Insufficient evidence of understanding of the subject matter; weakness in critical and analytical skills; limited or irrelevant use of the literature.

Course Policies on Missed or Late Academic Requirements

Audits

As per section 10 of the Undergraduate calendar, audits of this course are only permitted if permission to audit the course is given by the course instructor and a plan of what constitutes the planned audit is agreed upon by the instructor and student.

Synchronous Sessions

There are no direct grade penalties for being absent from the scheduled synchronous sessions (i.e., attendance). There are, however, weekly active learning assessments and term tests delivered and submitted during the synchronous sessions over the semester. Moreover, these sessions are also intended to provide a forum to ask clarification questions about lecture content, the term project, and upcoming tests or exams. Material covered in the synchronous session are not replicated in other media. Students are responsible for any information and assessments missed in the synchronous sessions.

Learning Management System (LMS)

Important information is posted to the LMS (“Brightspace”) several times a week. It is the responsibility of each student to check the LMS and their Dalhousie email on a regular basis to ensure they are not missing any important materials, updates, announcements, etc.

Materials posted to the Learning Management System are for personal use only and are not to be shared (see Copyright Disclaimer at the end of this course outline and in the LMS Course Shell). Sharing class materials with other students (registered in the class, not in the class, or outside the institution) is not permitted. Posting class materials to course sharing sites is also not permitted and could be considered both a copyright issue as well as a breach of academic integrity.

Course Variations

The course will be taught as close to the listed schedule as possible; however, some deviation from this schedule may be required as the term progresses.

Student Absence Declaration

This course has opted into the student declaration of absence in lieu of sick notes. Please refer to <https://bit.ly/2NJS8jw> for specific details about the use of the Student Declaration of Absence. This mechanism is meant to substitute for sick notes from a doctor related to short absences (less than three days) and does not provide an automatic exemption from any missed assessments. Accommodating the absence whether by exemption or makeup assessment is at the discretion of the course instructor. The SDA process can only be used twice in the course. It is important to remember that the SDA policy indicates you must contact the instructor before the assessment deadline has passed regarding your intention to submit an SDA as a part of the SDA process.

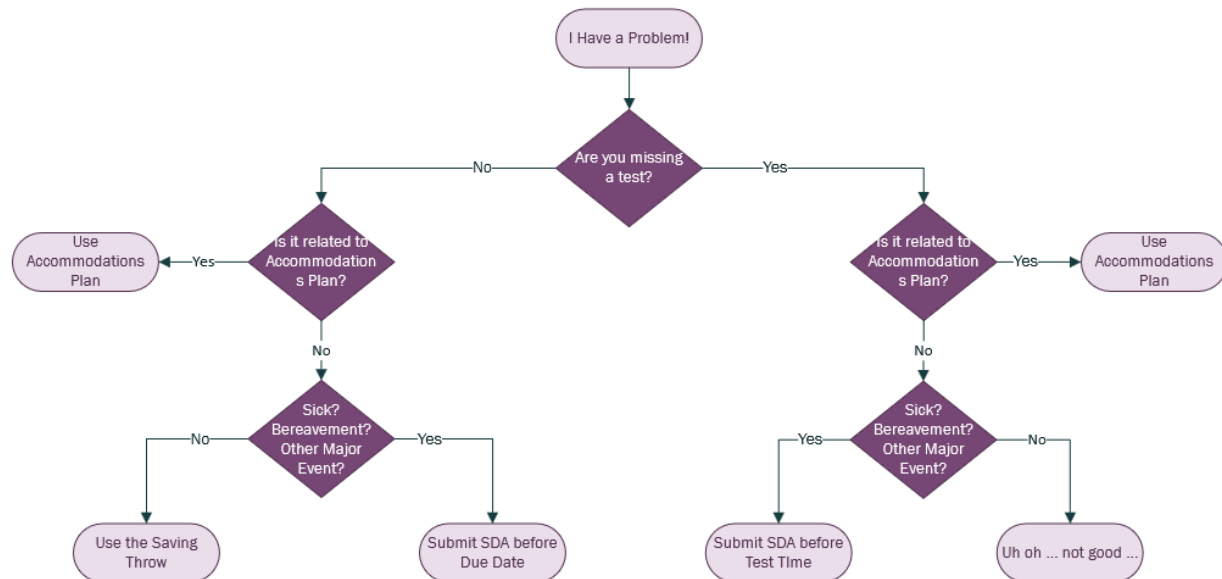
Discretionary Extensions (“the Saving Throw”)

In addition to any accommodations provided by the SDA policy and long-term absence policy, each student begins the semester with five discretionary extensions they may use on any applied assessment (workshop or lab project). Students may choose to use a discretionary extension to apply a +24-hour extension on that assessment for any reason not covered by standard accommodation policies, with no questions asked. Only one saving throw may be used per applied assessment, however attending a project working session earns an additional +1 saving throw that can be used to either apply an additional +24-hour extension or a +2.0% bonus to the related project if a complete project is submitted on or before the deadline.

When using discretionary extensions / saving throws the teaching staff must be informed prior to the deadline for the assessment passing to use these extensions for the extension to apply. You are permitted to use a saving throw after the deadline, however half the late penalty (or

“half damage” for any tabletop gaming peeps out there) will be applied for that saving throw (-10% instead of -20% for a larger project; -50% instead if -100% for a workshop deliverable).

These discretionary extensions are meant to supplement applicable policies such as the SDA (i.e., they are in addition to existing policies) and not meant to act as replacement for these existing policies. If you are sick, have accommodations with the Accessibility Centre that include extensions, if you are in bereavement, then the policies that normally govern those conditions (SDA, Accessibility, etc.) take precedence and should be used over a saving throw.



Missed Small Deliverables (Module-Related Exercises and Structured Workshops)

For both the module related exercises and the structured workshops, the lowest individual item for each will be dropped from the total score. If a student does not submit an item, that item is assigned a 0 and will count as the lowest score item.

Missed Tests

If a student misses a term test for valid reasons, they can write a make-up test scheduled on the final class day. Students that miss more than one term test must consult with the instructor for options on a case-by-case basis.

Submission of Work and Late Penalties

To reduce the carbon footprint related to class delivery, a considerable number of assessments will be submitted and graded electronically in the Brightspace LMS and or Crowd Mark to reduce paper use. Late penalties for written work without accommodation from the instructor vary by type of assessment.

Deliverables related to the term project are subject to -20% per calendar day. Late penalties begin to accrue after the assigned submission time has been reached. For example, if the

project is due on February 14th at 12:00 pm, submissions past that time (plus a brief “grace period”) are subject to the first application of a -20% late penalty.

Workshop submissions do not have late penalties. If the assigned submission time (plus a brief “grace period”) is reached before a submission is made, a 0 is applied to the submission. Submission dates may be extended through discretionary extension, the student declaration of absence, and accessibility accommodations where applicable and approved by the course instructor.

An important note for students with extension accommodations: workshops cannot be extended beyond the start of the earliest lab section of the week. If, for example, you submit a discretionary extension on Friday for +24 hours to extend to Saturday at 5:00 pm, then ask for the additional +72 hours, you will not have until Tuesday at 5:00 pm. You will have until Tuesday at 1:05 pm, the beginning of the first weekly lab section.

Social Media

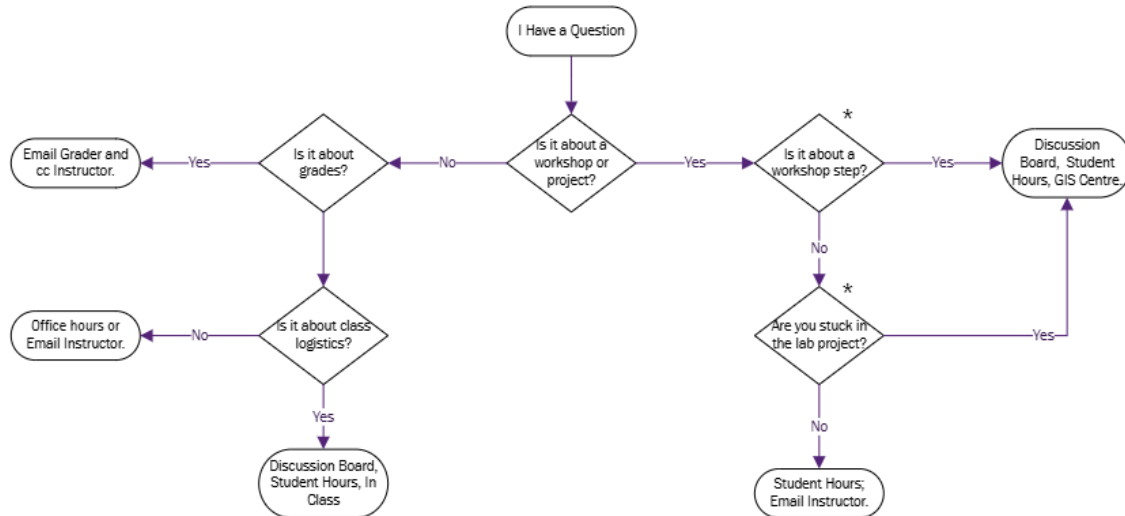
It can be disheartening to see your instructor posting material to social media that negatively discusses their students, even when those posts do not identify individuals. As students in this class, you have my promise that I will not publicly post anything negative about participants in this class.

Communications

Students are required to use discussion boards in the Learning Management System for many communication types, especially if related to course management and assessments that have applicability to the entire class cohort. If the Instructor, Lab Instructor, or Teaching Assistants receive an email and feel the question should go to the discussion boards, they will ask the student to replicate their question there for a full response or to ask the question in the next scheduled synchronous session.

Discussion boards will be set up to allow anonymous posting to increase the comfort level of students posting publicly. Please note that even with anonymous posting the moderator (i.e., the teaching staff) will know the identity of the user posting. Please endeavor to be courteous in all communications, including discussion boards.

Due to the volume of emails received during the semester, I am unable to guarantee immediate responses to email enquiries. Typically, students should expect an average of one business day for turnaround of responses to emailed questions. A rough decision tree to assist students in what communications tools to employ has been provided below.



* "Step ___ won't work, what do I do?" questions are generally not answered through email. The teaching team will respond to these questions with "post to discussion board" as the default response.

Course Policies Related to Academic Integrity

All written work may be subject to evaluation using a plagiarism detection service approved by Dalhousie. All students are responsible for ensuring the product they submit to the LMS is the one they intended to submit. There has been an ongoing trend of "I submitted the wrong draft" as a justification for high similarity in originality detection, or as an effort to buy time to avoid late penalties from submitting after the scheduled due date. If a resubmission is permitted by the instructor, that submission will be subject to a grade penalty unless there is timely notification from the student to the instructor that the wrong draft was submitted.

Unless otherwise noted by the instructor, independent work is required for each student. General discussion and peer tutoring are acceptable and encouraged; however, assessments with highly similar structure and flow of ideas are not acceptable and could be submitted to the faculty academic integrity officer for review.

Generative Artificial Intelligence (or "GenAI")

Limited use of Generative AI ("GenAI") is permitted in this course under the following principles:

Principles for Use of GenAI

- A GenAI tool cannot / will not do the learning for you as a student.
- GenAI tools cannot be used to produce original content for submission.
- Use of GenAI tools must be acknowledged / attributed.

Before outlining use cases, some general cautions / considerations.

- A GenAI model is a machine trained to recognize patterns and then reflect those patterns back to the user. Text responses are based on correlational patterns between words and phrases.
- Related, GenAI models have been trained to be confident, not correct. There is a plethora of examples of AI outputs confidently asserting factual errors. It is your responsibility to cross-reference / validate that information is correct from legitimate sources.
- GenAI models are tied to the models used to train them and are vulnerable to being discriminatory. If there are biases in the training data (and there will be), these models can perpetuate that bias.
- There are significant privacy concerns with the use of GenAI applications. Use of the Dalhousie Licensed Microsoft Copilot application is recommended.

Specifically, how can you use GenAI in this course?

What Can I do?		What Can't I do?	
<input checked="" type="checkbox"/>	Have a GenAI tool explain a general concept.	<input checked="" type="checkbox"/>	Upload or paste any past or present course material* into a GenAI tool.
<input checked="" type="checkbox"/>	Ask a GenAI tool to provide questions for study.	<input checked="" type="checkbox"/>	Use a GenAI tool to create original work for assessments unless directed to do so.
<input checked="" type="checkbox"/>	Use a GenAI tool to provide feedback on notes you have created.	<input checked="" type="checkbox"/>	Ask a GenAI tool for direct answers to workshops, assignments, quizzes, etc.
<input checked="" type="checkbox"/>	Ask a GenAI tool for suggestions for improving spelling and grammar on original work.	<input checked="" type="checkbox"/>	Use a GenAI tool to create graphics like maps or flow charts for an assessment / submission.
<input checked="" type="checkbox"/>	Use a GenAI tool to brainstorm topics (i.e., what are five emerging topics in _____).		
<input checked="" type="checkbox"/>	Use GenAI as directed in any assignment instructions.		

*Course material examples include lecture videos, presentation slides, pdf notes, assignment instructions, tests, workshop instructions, etc.

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 Mi'kmaq and Indigenous Relations (including the Elders in Residence program, Land Acknowledgements, Understanding Our Roots, and much more) can be found at:

<https://www.dal.ca/about/mission-vision-values/mikmaq-indigenous-relations.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/mission-vision-values/global-relations.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

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/campus_life/ssc.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:

<https://www.dal.ca/about/mission-vision-values/equity-diversity-inclusion-and-accessibility/about-office-equity-inclusion.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/content/dam/www/about/leadership-and-governance/governing-bodies/code-student-conduct.pdf>

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/content/dam/www/about/leadership-and-governance/university-policies/fair-dealing-policy.pdf>

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.

University Policies and Programs

Important Dates in the Academic Year (including add/drop dates):

http://www.dal.ca/academics/important_dates.html

Classroom Recording Protocol:

<https://www.dal.ca/content/dam/www/about/leadership-and-governance/university-policies/class-recording-protocol.pdf>

Dalhousie Grading Practices Policies:

<https://www.dal.ca/content/dam/www/about/leadership-and-governance/university-policies/grading-practices-policy.pdf>

Grade Appeal Process:

https://www.dal.ca/campus_life/academic-support/grades-and-student-records/appealing-a-grade.html

Sexualized Violence Policy:

<https://www.dal.ca/content/dam/www/about/leadership-and-governance/university-policies/sexualized-violence-policy.pdf>

Scent-Free Program:

<https://www.dal.ca/dept/safety/programs-services/occupational-safety/scent-free.html>

Learning and Support Resources

General Academic Support – Advising (Halifax):

https://www.dal.ca/campus_life/academic-support/advising.html

General Academic Support – Advising (Truro):

https://www.dal.ca/campus_life/ssc.html

Student Health & Wellness Centre:

https://www.dal.ca/campus_life/health-and-wellness.html

On Track (helps you transition into university, and supports you through your first year at Dalhousie and beyond):

https://www.dal.ca/campus_life/academic-support/On-track.html

Indigenous Student Centre:

https://www.dal.ca/campus_life/communities/indigenous.html

Mi'kmaq and Indigenous Relations:

<https://www.dal.ca/about/mission-vision-values/mikmaq-indigenous-relations.html>

Elders-in-Residence (The Elders in Residence program provides students with access to First Nations elders for guidance, counsel, and support. Visit the office in the Indigenous Student Centre or contact the program at elders@dal.ca or 902-494-6803:

<https://www.dal.ca/about/mission-vision-values/mikmaq-indigenous-relations/elders-in-residence-and-traditional-knowledge-keepers.html>

Black Student Advising Centre:

https://www.dal.ca/campus_life/communities/black-student-advising.html

International Centre:

https://www.dal.ca/campus_life/international-centre.html

LGBTQ2SIA+ Collaborative:

<https://www.dal.ca/about/mission-vision-values/equity-diversity-inclusion-and-accessibility/about-office-equity-inclusion/community-specific-groups/lgbtq2sia-collaborative.html>

Dalhousie Libraries:

<http://libraries.dal.ca/>

Copyright Office:

<https://libraries.dal.ca/services/copyright-office.html>

Dalhousie Student Advocacy Services:

<https://www.dsu.ca/dsas?rq=student%20advocacy>

Dalhousie Ombudsperson:

https://www.dal.ca/campus_life/safety-respect/ombudsperson.html

Human Rights and Equity Services:

<https://www.dal.ca/about/mission-vision-values/equity-diversity-inclusion-and-accessibility/about-office-equity-inclusion/human-rights-and-equity-services.html>

Writing Centre:

https://www.dal.ca/campus_life/academic-support/writing-and-study-skills.html

Study Skills/Tutoring:

http://www.dal.ca/campus_life/academic-support/study-skills-and-tutoring.html

Faculty of Science Advising Support:

<https://www.dal.ca/faculty/science/current-students/undergrad-students/degree-planning.html>

Safety

Biosafety:

<http://www.dal.ca/dept/safety/programs-services/biosafety.html>

Chemical Safety:

<https://www.dal.ca/dept/safety/programs-services/chemical-safety.html>

Radiation Safety:

<http://www.dal.ca/dept/safety/programs-services/radiation-safety.html>

Laser Safety:

<https://www.dal.ca/dept/safety/programs-services/radiation-safety/laser-safety.html>
