Geographic Information Science & Spatial Data

Department of Earth & Environmental Sciences

ENVS / ERTH / GEOG 3500 Fall 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.

Course Instructor(s)

Name	Email	Student Hours
Christopher Greene, PhD *Course Instructor*	Chris.Greene@dal.ca	Tuesday 10:00 – 11:30 am Thursday 3:00 – 4:30 pm
Bay Berry *Lab Instructor*	Bay.Berry@dal.ca	Thursday 1:00 – 3:00 pm

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 ERTH 3500.03, ERTH 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/4nhFMjU). Appointments are booked for 20-minute time slots.

Students in this class may work in LSC-3111 on weekdays from 7:30 am to 9:00 pm from Monday to Friday if the lab is not scheduled for use. Use of the lab is not permitted on weekends: Use of the space outside of this time **WILL TRIGGER THE ALARM**.

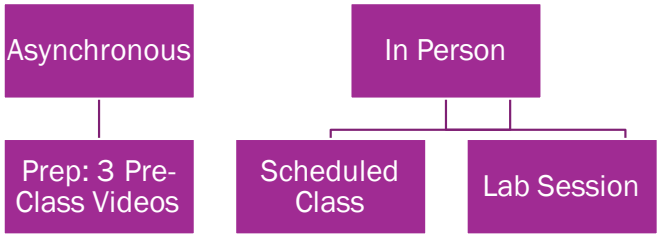
Students may also use the Elizabeth May Centre for Geocomputation (LSC-2012) on weekdays and on weekends from 7:00 am to 10:00 pm except on university holidays. The door code for LSC-2012 will be provided to students in the classroom setting.

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 (10 am - 4 pm). Appointments with a staff member for help on workshops or projects can be booked through their MS-BOOKINGS page (https://bit.ly/4240yee). 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, a midterm).



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

In-person sessions are scheduled on Tuesdays from 5:35 pm to 8:25 pm in the Life Sciences Centre Common Area (Room 236). This room is located past the Tim Horton's towards the Aquatron. The full three hours may be used occasionally to assist with managing the compressed semester, in review weeks, for the midterm, or making up time for a weather event (hurricanes are always a risk in the fall), however many weeks will only use about 90—100 minutes of the scheduled slot.

Laboratories

A three-hour in-person lab section is also held in LSC-3111 (the new computer lab in the east wing of the BIO-EES wing of the Life Sciences Centre). Four labs sections have been scheduled, and you are expected to attend your registered lab section. Students are permitted to contact the Lab Instructor via MS-TEAMS with questions during their scheduled lab section if they are unable to attend an in-person lab session for a short-term absence. This communications option is not intended for students to work from home as a long-term alternative.

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 methods[1]:

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. Licensing is granted through Single Sign On (SSO) access.

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 to meant to provide short term access for smaller tasks.

Missed assessments due to failure of non-lab technology will not be considered as a valid reason for late submissions. Access to the software via these methods is a courtesy and not intended to replace attendance in the scheduled lab sections.

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 recommended) to use exclusively for this course to provide an additional save method to OneDrive for applied work.

[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.

Assessment

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. These exercises introduce and develop fundamental GIS techniques and data management practices in preparation for the Independent Lab Project. Workshop deliverables are due +24 hours from the start of the student's scheduled lab section.

Applied – One Independent Lab Project (300 pts.): One larger, multiple lab session project, requiring students to select and apply techniques learned in the previous standalone, structured exercises. This project is intended to develop the ability to integrate and contextualize analytical outputs in a professional product (e.g., PowerPoint Presentation, Technical Report, Story Map). This project has two components:

- Part 1 (100 pts.) – Due Monday, October 27th, 2025, at 5:30 pm
- Part 2 (200 pts.) – Due Monday, December 8th, 2025, at 5:30 pm.

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

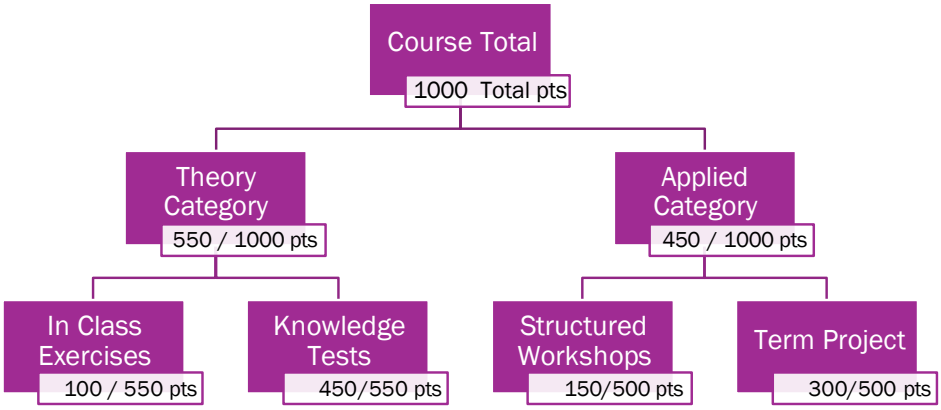
Knowledge Tests

Students will complete a midterm and a final exam for a total of 450 pts. Each assessment is largely structured as short/long answer format. The midterm will be held during the scheduled class period; the final exam will be scheduled by the Registrar's Office.

- Midterm (200 pts)
  - Tuesday, November 4th, 2025.
  - Content = Lectures 1.1 through 3.3.

- Final Exam (250 pts.)
  - Scheduled by the Registrar's Office in the Final Exam Period
  - Content = Lectures 3.4 through 5.6.

Content on the Final Exam 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.



Other Course Requirements,

Students must pass both the theory and applied categories of the course. In other words, students must earn 275 of the 550 total points in the theory portion of the class and earn 225 of the 450 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 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.

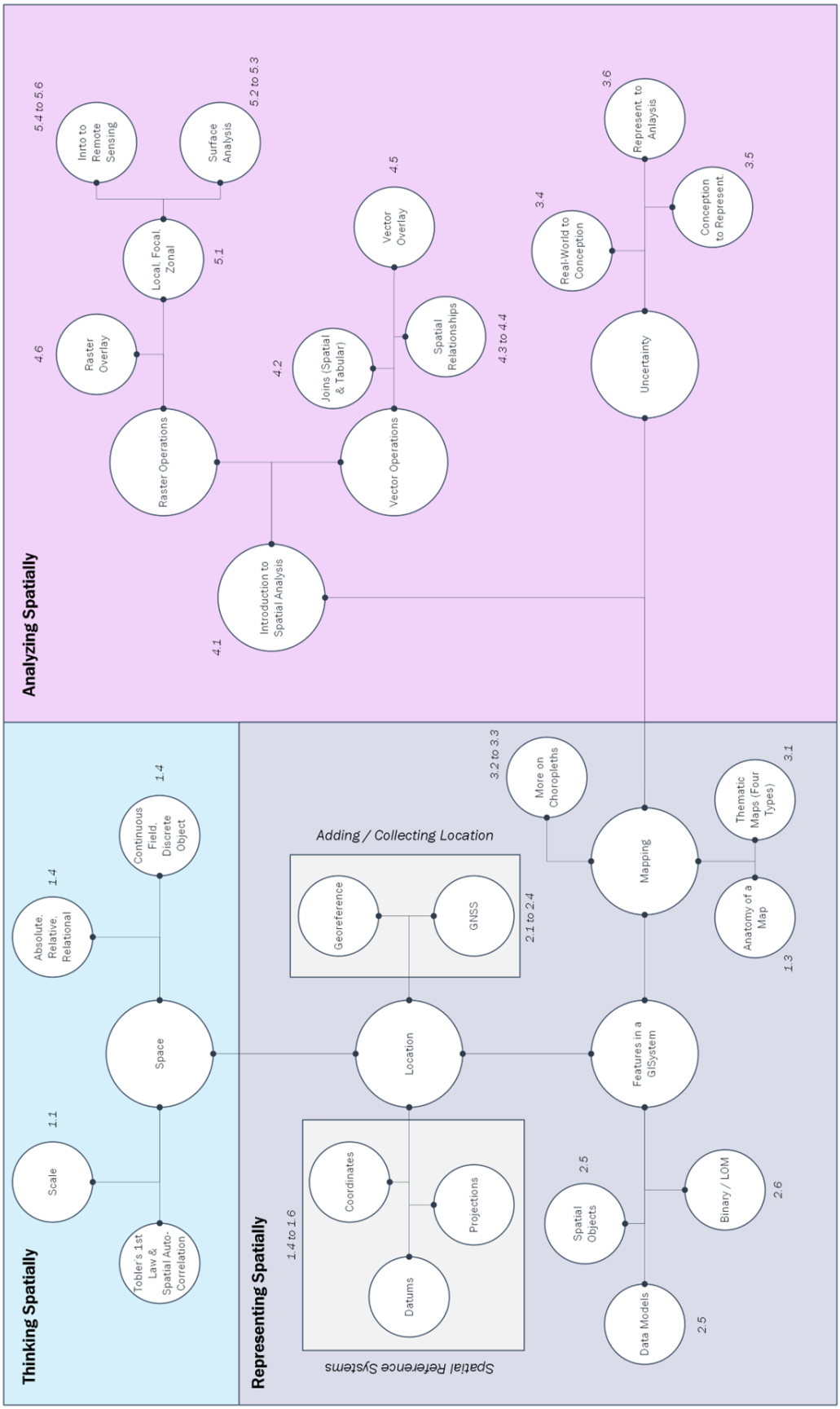
Class	Date	Schedule	Prep
1	23-Sep-25	Lecture: Class Overview Applied Lab: SWS-1*	Lectures 1.1 to 1.3
2	30-Sep-25	**Truth and Reconciliation Day (No Class)** Applied Lab: SWS-2*	Lectures 1.4 to 1.6
3	07-Oct-25	Lecture: In Class Exercise Applied Lab: SWS-3*	Lectures 2.1 to 2.4
4	14-Oct-25	Lecture: In Class Exercise Applied Lab: SWS-5 (4)*	Lectures 2.5 to 2.6
5	21-Oct-25	Lecture: In Class Exercise Applied Lab: Project Part 1**	Lectures 3.1 to 3.3
6	28-Oct-25	Lecture: Review, In Class Exercise Applied Lab: SWS-6 (5)*	Lectures 3.4 to 3.6
7	04-Nov-25	Lecture: Midterm Exam Applied Lab: SWS-7 (6)*	-
	11-Nov-25	**Reading Week**	-
8	18-Nov-25	Lecture: In Class Exercise Applied Lab: SWS-8 (7)*	Lectures 4.1 to 4.3
9	25-Nov-25	Lecture: In Class Exercise Applied Lab: SWS-9 (8)*	Lectures 4.4 to 4.6
10	02-Dec-25	Lecture: In Class Exercise Applied Lab: Project Part 2**	Lectures 5.1 to 5.3
11	09-Dec-25	Lecture: Final Review, In Class Exercise Applied Lab: None Scheduled	Lectures 5.4 to 5.6

**Workshop deliverables are due +24 hours from the start of the scheduled lab section. A maximum of one of your five discretionary extensions can be used per applied deliverable.*

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

Topic List

Lecture	*Time (min)*	*Lecture*	*Time (min)*
1-1 Geographic? Geospatial? Geomatics?	15	3-4 Uncertainty – Real-World to Conception	17
1-2 Geographic Information Science & Systems	20	3-5 Uncertainty – Conception to Representation	20
1-3 The Anatomy of a Map	24	3-6 Uncertainty – Representation to Analysis	23
1-4 Conceptualizing Space	18	4-1 Introduction to Spatial Analysis	23
1-5 Beyond Latitude and Longitude	17	4-2 Relational Database Functions	15
1-6 Spatial Reference Systems	24	4-3 Geographic Extensions to Databases	18
2-1 Adding Location to Analog Sources	21	4-4 Spatial Analysis - by Location, Distance	25
2-2 The Three Segments of Global Navigation Satellite Systems	15	4-5 Spatial Analysis – Vector Overlay	17
2-3 Resolving Location with Global Navigation Satellite Systems	22	4-6 Spatial Analysis – Raster Overlay	20
2-4 Dilution of Precision / Sources of Error	22	5-1 Surface Analysis – Foundations	22
2-5 Representing Features Digitally	26	5-2 Surface Analysis – Elevation Models	27
2-6 Binary Storage & Levels of Measurement	26	5-3 Surface Analysis – More Elevation Functions	17
3-1 Introduction to Thematic Mapping	21	5-4 Remote Sensing – Electromagnetic Radiation	20
3-2 Choropleth Maps – Classification	31	5-5 Remote Sensing – Data Structure	20
3-3 Choropleth Maps – Data Standardization	20	5-6 Remote Sensing – Platform Capabilities	15


Analyzing Spatially
Representing Spatially
Thinking Spatially
Intro to Remote Sensing
5.4 to 5.6
Surface Analysis
5.2 to 5.3
Local, Focal, Zonal
5.1
Raster Overlay
4.6
Raster Operations
Vector Overlay
4.5
Joins (Spatial & Tabular)
4.2
Spatial Relationships
4.3 to 4.4
Vector Operations
Introduction to Spatial Analysis
4.1
Represent. to Anlaysis
3.6
Real-World to Conception
3.4
Conception to Represent.
3.5
Uncertainty
More on Choropleths
3.2 to 3.3
Thematic Maps (Four Types)
3.1
Mapping
Adding / Collecting Location
Georeference
GNSS
2.1 to 2.4
Anatomy of a Map
1.3
Location
Features in a GISystem
Spatial Reference Systems
1.4 to 1.6
Coordinates
Projections
Datums
Spatial Objects
2.5
Binary / LOM
2.6
Data Models
2.5
Space
Scale
1.1
Absolute, Relative, Relational
1.4
Continuous Field, Discrete Object
1.4
Tobler's 1st Law & Spatial Auto-Correlation

Additional General Course Policies

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 not attending the scheduled synchronous session (i.e., attendance). There are, however, assessments such as in-class exercises and testing / midterm exams 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, lab projects, 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) - Brightspace

Important information is posted to the LMS 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.

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.

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 stemming from the lockout of university faculty, potential for severe weather events, the LSC being the LSC, etc.

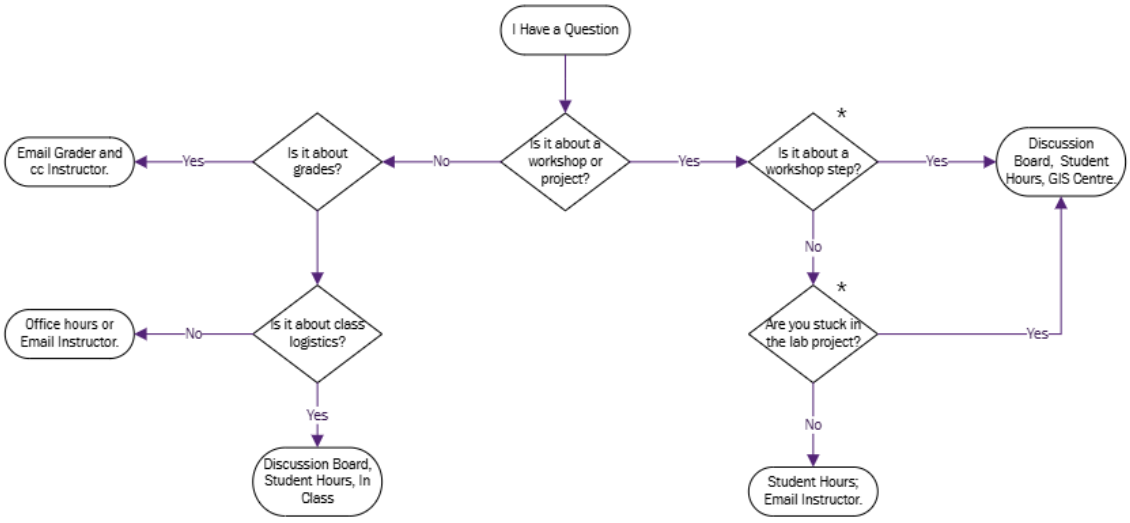
Communications

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 at the end of Section A of the Syllabus.

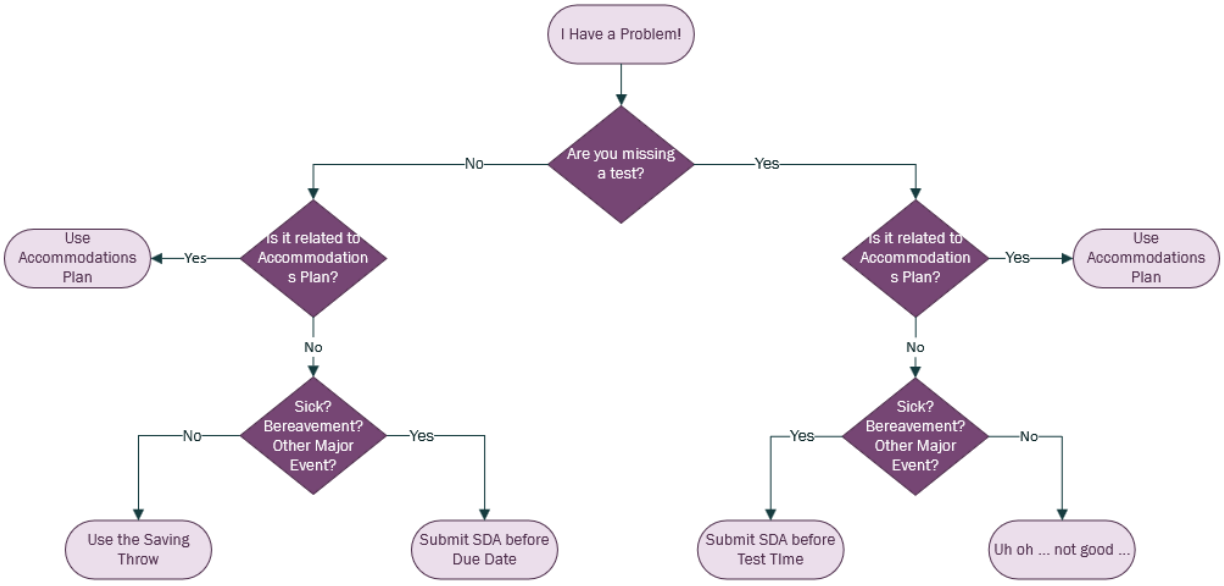


** "Step ___ won't work, what do I do?" questions are generally not answered through email. The teaching team will respond to these questions with "post to discussion board" as the default response.*

Policies on Missed or Late Academic Requirements

Student Absence Declaration

This course has opted into the student declaration of absence in lieu of sick notes. Please refer to https://bit.ly/4mphrHt 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 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 +2.5% bonus to the project if a complete project is submitted on or before the deadline.

When using 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.

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 Exams

If a student misses the midterm exam for valid reasons, the value will be added to the final exam. Students that miss the final exam will be assigned in Incomplete grade and may write a makeup at the beginning of the winter semester.

Submission of Work and Late Penalties

To reduce the carbon footprint related to class delivery, most work will be submitted and graded electronically in the Brightspace LMS to reduce paper use.

Late penalties for written work without accommodation from the instructor are -20% per calendar day. Late penalties begin to accrue after the assigned submission time has been reached. For example, if an assignment is due on September 4th at 12:00 pm, submissions past that time (plus a brief “grace period”) are subject to the first application of a -20% late penalty.

Course Policies related to Academic Integrity

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. Similarly, if not indicated in individual assessment instructions, then the products of Large Language Models / Generative AI (e.g., text generated by CoPilot, ChatGPT, Mobile ChatBot extensions, browser extensions) will not be considered as independent student work and is explicitly not permitted for use in assessment submissions.

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

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/about/leadership-governance/academic-integrity/faculty-resources/ouriginal-plagiarism-detection.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.

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/dept/university_secretariat/policies/academic/classroom-recording-protocol.html

Dalhousie Grading Practices Policies:
https://www.dal.ca/dept/university_secretariat/policies/academic/grading-practices-policy.html

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/dept/university_secretariat/policies/health-and-safety/sexualized-violence-policy.html

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/about-dal/agricultural-campus/ssc/academic-support/advising.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

Indigenous Connection: https://www.dal.ca/about-dal/indigenous-connection.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://cdn.dal.ca/content/dam/dalhousie/pdf/academics/UG/indigenous-studies/Elder-Protocol-July2018.pdf

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/dept/vpei/edia/education/community-specific-spaces/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/student-rights-and-responsibilities/where-to-get-help/ombudsperson.html

Human Rights and Equity Services: https://www.dal.ca/dept/hres.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