

Faculty of Management Course Syllabus
ENVI 5505/MGMT 4505 (Online)
Biophysical Dimensions of Resource and Environmental Management
Winter 2021

Course Overview

Description

There are many techniques and tools for gathering, interpreting, and evaluating information about the biophysical environment to inform management decisions. For the purposes of this course, the term **biophysical** refers to the physical, chemical and biological attributes and processes that describe the natural environment. These include fauna and flora, habitats, energy flows, biodiversity, community structure, and attributes such as the chemical characteristics of groundwater, surface water and marine habitats, food webs, and physical, chemical and biological processes such as photosynthesis, decomposition, predation, symbiosis, eutrophication, reproduction, succession and erosion of geological structures. This is not an exhaustive list!

Through this course, we will examine techniques and tools for measuring and managing biophysical aspects of the environment. Examples include state of the environment reporting, environmental effects monitoring, ecological footprint analysis, biophysical aspects of environmental impact assessment, ecological risk assessment, species at risk assessment, life cycle assessment, community based monitoring, citizen science and Indigenous Guardians programs, land use planning, environmental labeling, environmental management system certification, environmental site assessment, environmental remediation, spatial analysis, predictive and adaptive management. We will consider some of these tools in the context of environment and resource issues such as mining, aquaculture, forest management, climate protection, pollution, and water resource management, and energy efficiency, among others. It is not possible in a term to address all biophysical tools related to resource and environmental management issues. Although many will be presented by the professor and guest lecturers, students will be expected to investigate techniques, tools and cases on their own to contribute to class discussions and assignments.

Course Prerequisites

Enrollment in a graduate program. Upper-year undergraduate students may request admission from the instructor.

Instructor

Dr. Alana Westwood (pronouns: she/her)

Profile: Posted on the course website and www.alanawestwood.com

Contact: Message directly on Microsoft Teams or email a.westwood@dal.ca. I will respond to emails/messages once per weekday, and will **not** respond on evenings and weekends.

Office hours: Held weekly on Mondays before class. Make an appointment: <http://calendly.com/alanawestwood/biophys/>

Discussion forum: Students may ask questions (including anonymously) in the course FAQ on Brightspace.

Phone: Available by request.

Course TAs

Your two TAs will be marking assignments, helping design course content, delivering tutorials, and holding office hours to answer questions. Do not hesitate to contact them with questions.

Alex Johnston (he/him). alex.johnston@dal.ca

Profile: Posted on the course page.

Contact and Office Hours: Email alex.johnston@dal.ca anytime with questions or concerns. Alex will get back to you asap. If wishing to schedule, please propose three times that work for you - 99% of the time, something can be booked with just the one email!

Charlotte Large (she/her)

Profile: Posted on the course page or found at www.linkedin.com/in/charlotte-large

Contact and Office Hours: Message directly on Teams or email at charlotte.large@dal.ca anytime between 9:00am and 4:00pm AST on weekdays. Any emails received during the evenings and weekends will be answered during those hours on following days. Charlotte does not keep strict office hours, but please send a message/email to arrange a meeting.

Course Development Assistance

Erin Dann (TA) & Kira Chalupa (RA) are supporting this course through development of lecture materials, identifying materials from diverse creators, and analyzing the online delivery of the course to maximize accessibility and inclusion. Neither are serving a marking function for this course. Contact information for Erin or Kira is available from the instructor.

Course Delivery

The majority of course content is delivered asynchronously on Brightspace (dal.brightspace.com) through a mixture of recorded lectures, readings, podcasts, discussion forum posts, videos, and other materials. Weekly online synchronous discussions will take place each Monday from 12:35-13:55 ADT from January 11 to April 5 using Microsoft Teams. Discussions will be composed of question and answer sessions with guest speakers, facilitated discussion on required readings, and opportunities to discuss assignments and course expectations with the instructor and TAs.

Course Objectives/Learning Outcomes

The goal of this course is to introduce students to biophysical considerations, approaches and tools involved in the management of natural resources and environmental issues. The student will be able to:

- Engage in case-based, problem-solving learning to understand how biophysical information can contribute to effective decisions regarding natural resource use or environmental risks.
- Use current techniques and tools to incorporate biophysical information into decision-making.
- Use critical analysis to realize the value and limitations of biophysical sciences in preparing management strategies and making resource and environmental management decisions.

Course Policies

1. Attendance and participation are your responsibility. You are expected to view pre-recorded lectures, attend synchronous sessions, and review all course content. Come prepared to engage in discussion with other students and guests. You will regularly be split into subgroups to discuss with other students and should be prepared by having reviewed lectures and readings for the week.

2. Collegiality and respect. You are expected to treat all classmates and your instructor with collegiality and to treat each person as an equal, independent of any factors relating to their identity. Every person at Dalhousie has a right to be respected and safe. Dalhousie University also acknowledges that the University is located on traditional Mi'kmaq Territory: it is your responsibility to ask questions and unpack what respecting unceded territory means in your life.

3. Brightspace. Keeping up to date with the announcements, learning materials, and discussions posted on Brightspace, as well as submitting your assignments through the Brightspace dropbox, is your responsibility.

4. Late assignments. A deduction of 10% will be taken off for each day an assignment is late. Arrangements to hand in assignments late due to extenuating circumstances must be made with the instructor at least 48 hours before the assignment is due. All assignments are due at 10:00 PM ADT unless otherwise stated on the assignment instructions. To improve time management skills, visit [Studying for Success](#) for a self-assessment, free workshops, and personal coaching.

5. Your wellness and inclusion are priority. This course has been designed to the best of the instructor's ability with [principles of universal design](#), which supports accessible education as a default. Access is meant to be proactive and inclusive. If the course materials do not meet your access needs, in addition to contacting [Accessibility Services](#), please contact the instructor to discuss alternate arrangements or redesigning course elements. Any conversations with the instructor about accessibility are confidential and are strictly for facilitating learning needs or accommodations. Please see the 'policies and services' section for information about supports.

Course Assessment

Assignment	Grade proportion	Due date
1. Project planning Gantt chart	10	January 31
2. Biophysical evaluation technique/tool	40	
2a. Three-page summary of tool	(10)	February 28
2b. Recorded presentation for class on tool	(15)	February 28
2c. Peer review of 3 other students' presentations and summaries	(10)	March 14
2d. Revised summary including response to peer reviews	(5)	April 4
3. Case study biophysical analysis (for MREM students, part of documents also submitted for ENVI5205 and ENVI5500)	50	
3a. Outline demonstrating why case study is suitable and planned paper sections	(10)	February 8
3b. Paper on biophysical analysis plan for case study	(40)	April 11

All assignments are due at 10:00 PM Atlantic Daylight Time unless stated otherwise. All assignments are accompanied by a detailed instruction sheet, verbal instructions, and a marking rubric on Brightspace. Short summaries of the assignments are as follows:

Assignment 1: Project planning Gantt chart

All projects should start with a plan. The purpose of this assignment is twofold: to create your own custom schedule for this class, and to gain experience with an established time management tool. Gantt Charts are essentially a combined calendar and workplan commonly used in research proposals, thesis planning, construction projects, and more. They are heavily used by project managers coordinating the many pieces of biophysical analysis plans, especially for large projects or systems with multiple components. You will create a Gantt chart detailing your expected working strategy and due dates for this course, and you may obtain a maximum of **two** bonus marks (in the assignment rubric) by including at least one other course's work (or your thesis work) in your chart. As even the best plans face challenges, you will also include a short reflection identifying busy times, strategies for getting back on track, and ways to stay accountable. This assignment will be primarily marked by your TAs, with grade validation by the instructor.

Assignment 2: Analysis of biophysical technique or tool

Students will be provided with a list of biophysical tools and techniques used for environmental and natural resource management. Students will select one from the list (no two students may select the same tool) or may propose an additional one not on the list. You may select a tool or technique covered in class, but the expectations for depth of analysis will be greater.

This assignment is divided into four parts. Students will prepare a three-page summary of the tool (with references on additional pages in end-note style) as well as record a fifteen-minute presentation explaining the tool. It is often most helpful to explore the tool in the context of a particular case or two. You should constructively comment on the concept or tool, and how effective it is both at evaluating biophysical elements and as a management tool.

Each student will then review the summaries and presentations of three other students (you may select which topics you review) and give feedback using a standardized template. Finally, each student will turn in a revised version of their summary including a response to the three reviewers as well as the comments made by the TA or instructor who marked the first copy. All parts of this assignment will be marked primarily by your TAs, with grade validation by the instructor.

Assignment 3: Biophysical analysis of case study

Each student will select a current resource and environmental management issue for which biophysical analysis is required or prudent to examine as a case study. The case study may be anywhere in the world, and it is suggested that students choose something of personal relevance, interest, or importance. As examples, cases that have been explored in the past in Nova Scotia have included moose management in Cape Breton, managing gold mining impacts, aquaculture management in Saint Margaret's Bay, the Sydney Tar Pond remediation, tidal energy in Minas Basin, and invasive forest pests in the Halifax Regional Municipality. Past examples outside of

Nova Scotia include how the City of Winnipeg accesses drinking water from Shoal Lake; how trans-border pollution from pulp mills is managed in New Brunswick and Maine, and orphaned and abandoned mines in northern Canada (to name just a few). **Students may work with a real-world organization** on their case study but must speak to the instructor about this first.

Importantly, students in the Master's of Resource and Environmental Management (MREM) program will use the same case study issue or topic for this course case study analysis as well as the simultaneous analyses undertaken in required courses *ENVI5205 Law and Policy Dimensions* and *ENVI5500 Socio-Political Dimensions*. The case study work undertaken for the three courses is to be a single integrated whole, not three separate papers and topics.

This assignment will be completed in two parts. The first is a paper outline which demonstrates why the case is suitable for a biophysical analysis plan. For MREM students, this will be merged with the outline for the ENVI5205 and ENVI5500 (you will turn in the same document in all three courses for the same deadline, in each Brightspace dropbox). All students will state why the topic is appropriate, what biophysical dimensions they will propose to evaluate, and what resources (literature and other sources) they will draw upon. All outlines should include sections that you anticipate will frame their final term paper and an initial indication of the sorts of topics that may be addressed under these headings. There should be indication of early engagement with the literature. Assignment requirements in terms of length and breadth will differ slightly for MREM (5-6 pages) and non-MREM students (3 pages). More details will be given on the assignment sheet.

At the end of term, students will hand in a term paper detailing why the case is compelling and connecting it to literature related to the biophysical attribute(s)/process(es), a proposed or actual analysis for its biophysical dimensions, and anticipated findings based on related literature or work in progress. MREM students will complete a maximum 8000-word paper (excluding references and appendices) which also includes a socio-political and law and policy analysis of their case. Non-MREM students will complete a maximum 3500-word paper (excluding references and appendices). This final paper is expected to provide background on the case study, synthesize what is currently known, key issues, the knowledge base, and opportunities for further biophysical analysis. If possible, you are welcome to collect and analyse original data as part of this project (e.g. conduct your own avian species survey on a plot of land slotted to become a housing development, or conduct a GIS analysis of publicly-available forest inventory data), and doing so would contribute very favourably towards your mark. Specific instructions explaining the differences for MREM and non-MREM students will be available on the assignment sheet.

This project has considerable flexibility in topic and approach, and opportunities to discuss topics and approaches with the instructor and other students will be given during class time. All components of this assignment will be graded by the instructor.

Grading

Conversion of numerical grades to Final Letter Grades follows the Dalhousie Common Grade Scale. Note that for students in a **graduate program, a minimum grade of B- is required** to pass

the course. In other words, a final term grade of under 70% will be assigned an F for all graduate students. Receiving a final grade of F in a graduate program means different things in different programs. In the MREM, a single F results in automatic dismissal from the program with the right to appeal to re-enter the program.

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

Course Schedule

The course is structured in 11 blocks which occur on a weekly basis. The schedule below could be subject to further change, particularly in relation to the scheduling of guest speakers who bring their expertise from academia, industry and government. Planned discussion topics may also be substituted with newsworthy issues with as little warning as one week. You will be informed ASAP if there are any changes to the schedule via Brightspace announcements.

Session	Asynchronous topics and tasks	Synchronous session
Block 1 Jan 11-17	1. Introduction to the syllabus and course expectations 2. Overview of biophysical dimensions of resource and environmental management <ul style="list-style-type: none"> Go to the Brightspace forum and introduce yourself 	<ul style="list-style-type: none"> Introducing Assignment 1 Discussion: Setting course norms
Block 2 Jan 18-24	3. Environmental Impact Assessment 4. Ecological land classification <ul style="list-style-type: none"> Choose your Assignment 2 topic 	<ul style="list-style-type: none"> Introducing Assignment 2 Discussion: Topic TBD
Block 3 Jan 25-31	5. Siting wind and solar farms (Jason Parisé, SWEB Development Inc.) 6. Small and medium-scale solar developments (Shael Rotman, Moose Power) <ul style="list-style-type: none"> Last day to drop class without a “W” (Jan 29) Choose your Assignment 3 topic Assignment 1 due (Jan 31) 	<ul style="list-style-type: none"> Introducing Assignment 3 (with Melanie Zurba and Peter Tyedmers, instructors for 5500 and 5205, respectively) Think/pair/share exercise on potential case study topics
Block 4 Feb 1 - 7	6. Priority Threat Management for species at risk (Abbey Camaclang, University of British Columbia) 7. Forest certification systems and SFI (Darren Sleep, Sustainable Forestry International)	<ul style="list-style-type: none"> Q&A with Jason Parise & Shael Rotman Discussion: Topic TBD
Block 5 Feb 8-14	8. Species at risk assessment 9. The roles of Indigenous Guardians programs and citizen science in biophysical resource management (Emily Missyabit MacAulay, Agriculture and Agri-Food Canada) <ul style="list-style-type: none"> Assignment 3a due (Feb 12) 	<ul style="list-style-type: none"> Q&A with Abbey Camaclang & Darren Sleep Discussion: TBD
Feb 15-21	Winter study break	

Block 6 Feb 22-28	6. Techniques in GIS for planning and executing fieldwork (Charlotte Large) 7. Land-use planning: overview and an urban Chinese case study (Alex Johnston) <ul style="list-style-type: none"> • Assignment 2a due (Feb 28) • Assignment 2b due (Feb 28) 	<ul style="list-style-type: none"> • Q&A with Emily Missyabit MacAulay • Discussion: Topic TBD
Block 7 Mar 1 - 7	Review materials for Assignment 2c	<ul style="list-style-type: none"> • TA tutorial session (Charlotte Large & Alex Johnston)
Block 8 Mar 8 - 14	8. CABIN and Environmental Effects Management in freshwater systems (Michelle Gray, University of New Brunswick) 9. Aquaculture-environment interactions (Ramon Filgueira, Dalhousie University) <ul style="list-style-type: none"> • Assignment 2c due (Mar 14) 	<ul style="list-style-type: none"> • Discussion: Topic TBD • Assignment 3 working session: reverse engineering think/pair/share
Block 9 Mar 15 - 21	10. Geological data and planning for hazards (sinkholes, erosion, flood modelling) (TBD, Nova Scotia Department of Natural Resources) 11. Tools for hazard and contamination monitoring and management (Carrie Rickwood, Natural Resources Canada)	<ul style="list-style-type: none"> • Q&A: Michelle Gray and Ramon Filgueira • Assignment 3 working session: revisiting Gantt chart
Block 10 Mar 22-28	12. Integrated Natural Resource Management Assignment 2d due (March 28)	<ul style="list-style-type: none"> • Q&A: NSDNR Geologist TBD & Carrie Rickwood • Assignment 3 working session: Introduction paragraph peer edits
Block 11 Mar 29 -April 5	13. Any unfinished content <ul style="list-style-type: none"> • Complete course evaluation • Assignment 3b due April 11 	<ul style="list-style-type: none"> • Course celebration

Course Materials

Required Resources

All required reading (inclusive of text, video, and audio materials) will be provided through Brightspace. Readings may be provided as little as one week prior to the next scheduled synchronous discussion to address current affairs.

Students must have access to the university library (libraries.dal.ca) as well as a computer or a functional tablet for word processing, and consistent access to the internet. It is strongly recommended that students have access to a webcam and microphone, as well as sufficient internet or cellular bandwidth to engage in synchronous video discussions.



Brightspace is our classroom space! This is where you'll find the class announcements, weekly modules, video lectures, course readings, dropbox for submitting assignments, and discussion boards for questions and assigned reflections.



Teams is our conferencing platform. Synchronous discussions will happen on Teams, and groups may be designated a channel they can use to organize themselves and conduct meetings. All enrolled students will receive a link to the Teams course space.

Learn more about available digital tools [here](#). If you require support for the course or university technologies, contact Information Technology Services at 1-800-869-3931 or support@dal.ca

Optional Resources

Students who wish to underpin the course material with foundational texts will find the following resources helpful. This list, compiled by Dr. Tony walker, consists of relevant books currently held at the Killam Library.

Abbasi, S. *The Theory and Practice of Environmental Impact Assessment*. Discovery.
Angelstam et al. *Targets and Tools for the Maintenance of Forest Biodiversity*. Blackwell
Artiola, J.F. et al. *Environmental Monitoring and Characterization*. Elsevier.
Bissonette and Storch. *Landscape Ecology and Resource Management*. Island Press.
Burgman, M. *Risks and Decisions for Conservation and Environmental Management*. CUP.
Busch and Trexler. *Monitoring Ecosystems: Interdisciplinary Approaches*. Island Press.
Dalal-Clayton, B. *Strategic Environmental Assessment*. Earthscan Publishing.
Dale, Virginia. *Ecological Modeling for Resource Management*. Springer-Verlag.
Ewert, A.W. et al. *Integrated Resource and Environmental Management*. CABI.
Gibson, R.B. *Sustainability Assessment*. Earthscan Publishing.
Gunderson and Pritchard. *Resilience and Behavior of Large-Scale Systems*. Island Press.
Hicks, R. *Ecology and Management of Central Hardwood Forests*. John Wiley and Sons.
Jackson, M.C. *Systems Approaches to Management*. Plenum.
Korakandy, R. *Coastal Zone Management*. Kalpaz.
Kumar, H.D. *Sustainability and Management of Aquaculture and Fisheries*. Daya.
Lawrence, D.P. *Environmental Impact Assessment*. Wiley.
Lindenmayer and Franklin. *Towards Forest Sustainability*. Island Press.
Linnerooth-Bayer. *Transboundary Risk Management*. Earthscan Publishing.

Liu and Taylor. *Integrating Landscape Ecology into Natural Resource Management*. CUP.

MacKinnon, A., Duinker, P.N., Walker, T.R. *The Application of Science in Environmental Impact Assessment*. Routledge.

McPherson and Destefano. *Applied Ecology and Natural Resource Management*. CUP.

Millenium Ecosystem Assessment. *Ecosystems and Human Well-being: A Framework for Assessment*.

Mitchell, B. *Resource and Environmental Management in Canada*, 3rd ed. OUP.

Monserud, R.A. et al. *Compatible Forest Management*. Kluwer Scientific.

Newman and Unger. *Fundamentals of Ecotoxicology*. 2nd ed. CRC Press.

Parikh and Datye. *Sustainable Management of Wetlands: Biodiversity and Beyond*. Sage India.

Piegorsch and Bailer. *Analyzing Environmental Data*. Wiley.

Postel and Richter. *Rivers for Life: Managing Water for People and Nature*. Island Press.

Raison, J.K. et al. *Criteria and Indicators of Sustainable Forest Management*. OUP.

Ramachandran and Ramesh. *Freshwater Management*. Capital.

Rethy, P. et al. *Forest Conservation and Management*. Publisher unknown.

Russo.M.V. *Environmental Management: Readings and Cases*. Houghton Mifflin.

Sayer, J.A. *Forests in Landscapes: Ecosystem Approaches to Sustainability*. Earthscan Publishing.

Shipely, J.B. *Aquatic Protected Areas as Fisheries Management Tools*. American Fisheries Society.

Smith, K. *Environmental Hazards: Assessing Risk and Reducing Disaster*. 4th ed. Routledge.

Therivel, R. *Strategic Environmental Assessment in Action*. Earthscan Publishing.

Thomas and Duff. *Guidelines for Management Planning of Protected Areas*. IUCN.

Thompson, Dixon. *Tools for Environmental Management*. New Society Publishers.

Van den Bergh et al. *Spatial Ecological-Economic Analysis for Wetland Management*. CUP.

Wescoat and White. *Water for Life: Water Management and Environmental Policy*. CUP.

Wiersma, G.B. *Environmental Monitoring*. CRC Press.

Policies and services

Though this course is designed with universal principles, students still may face barriers to success related to disability, religious obligation, or any characteristic protected under Canadian Human Rights legislation. Dalhousie's Student Accommodation Policy can be [accessed at this link](#). Students requiring accommodation for classroom participation or the writing of tests and exams should make their request to the **Student Accessibility Centre** prior to or at the outset of the regular academic year. Find more information and the **Request for Accommodation** form [online](#).

Student health and wellness

Your health and wellness is a priority. Students in Halifax should be aware of the in-person [Student Health and Wellness Centre](#) where you can see doctors, nurses, psychiatrists, counsellors, and other health professionals. Counselling is provided free of charge to Dalhousie students.

Completing a full courseload involves a great deal of screen time on computers and other devices, which may be stressful for some students' physical and mental well-being. Free text-to-

speech/speech-to-text software, Read and Write Gold, is available through Dalhousie's [software library](#). Students may wish to consider using this or similar software to convert long readings to audio or to write first drafts of papers by dictation.

The Student Accessibility Centre also has a [Lending Library](#) which includes technology resources that may ease eyestrain, improve audio quality, improve seated ergonomics, or make it possible to work effectively in unavoidably noisy study spaces. Examples include tablets, noise-cancelling headphones, a portable text-to-speech pen, recording devices, and more.

Academic integrity

Academic integrity, with its embodied values, is seen as a foundation of Dalhousie University. It is the responsibility of all students to be familiar with behaviours and practices associated with academic integrity. Instructors are required to forward any suspected cases of plagiarism or other forms of academic cheating to the Academic Integrity Officer for their Faculty.

The Academic Integrity website (<http://academicintegrity.dal.ca>) provides students and faculty with information on plagiarism and other forms of academic dishonesty, and has resources to help students succeed honestly. Any paper submitted by a student at Dalhousie University may be checked for originality to confirm that the student has not plagiarized from other sources. Plagiarism is considered a very serious academic offence that may lead to loss of credit, suspension or expulsion from the University, or even the revocation of a degree. See the [full text](#) of Dalhousie's **Policy on Intellectual Honesty and Faculty Discipline Procedures**. You should be familiar with the [Faculty of Management Professor and Student Contract on Academic Integrity](#), and it is your responsibility to ask questions if there is anything you do not understand.

Dalhousie offers many ways to learn about academic writing and presentations so that all members of the University community may acknowledge the intellectual property of others. Knowing how to find, evaluate, select, synthesize and cite information for use in assignments is called being "information literate." Information literacy is taught by Dalhousie University Librarians in classes and through online tutorials.

Do not plagiarize any materials for or from this course. For further guidance on what constitutes plagiarism, how to avoid it, and proper methods for attributing sources, see [these resources](#). If you suspect cheating by colleagues or lapses in standards by a professor, you may use the confidential email: managementintegrity@dal.ca (read only by the Assistant Academic Integrity Officer).

Student code of conduct

Dalhousie University has a [student code of conduct](#), and it is expected that students will adhere to the code during their participation in lectures and other activities associated with this course. In general:

“The University treats students as adults free to organize their own personal lives, behaviour and associations subject only to the law, and to University regulations that are necessary to protect

- the integrity and proper functioning of the academic and non-academic programs and activities of the University or its faculties, schools or departments;
- the peaceful and safe enjoyment of University facilities by other members of the University and the public;
- the freedom of members of the University to participate reasonably in the programs of the University and in activities on the University's premises;
- the property of the University or its members.”

Other services available to students

The following campus services are available to help students develop skills in library research, scientific writing, and effective study habits, as well as to connect with other students to support both coursework and campus life. The services are available to all Dalhousie students and, unless noted otherwise, are **free**.

[Academic advising](#) – Support for understanding degree requirements and academic regulations. Academic advising can support you through academic or other difficulties and ensure you meet your educational or career goals.

[Black student advising centre](#) – Provides support for Black students including scholarship and bursary information as well as a directory of Black student societies and groups and related events. Also provides a physical space for Black students to study and network.

[Dalhousie's libraries](#) – Beyond simply being a place to do online or in-person research, librarians advice on search methods, support you with finding materials to complete assignments, and help you reference your work correctly. You can also book a computer, study room, or space for group work in the library.

[Dalhousie Student Union societies](#) – Peer support and team-building is an essential part of the university experience. With over 250 active societies, students can meet others with mutual interests or identities. Student societies can be of particular importance for those who may face identity-related barriers to the university experience.

[Indigenous student centre](#) – Provides support for Indigenous students including regular smudging, scholarship and bursary information, and orientations and other events. Also provides a physical space for Indigenous students to study and network. 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, 1321 Edward Street, or email elders@dal.ca.

[International student centre](#) – Provides support for international students including one-on-one mentorship and guidance for university life Canada. Also provides information for domestic students wishing to study abroad.

[South House](#) – A full-time gender justice centre which provides support to those of marginalized sexual and/or gender identities, including LGBTQ2S+ identities and beyond. Offers space for relaxation or studying, a community computer, and a vast library. Regularly offers workshops and educational events relating to gender justice and sexual and gender diversity.

[Writing Centre](#) – Provides free coaching/tutoring to support any assignment with a written component, ranging from a graduate thesis to a poster to an annotated bibliography and anything in-between. Students will be paired with a tutor from the same discipline who can assist with discipline-specific writing conventions and referencing. The Writing Centre also provides free workshops and comprehensive resource guides.