

**Dalhousie University**  
**School for Resource and Environmental Studies**  
**ENVI 5005: Field Skills for the Environmental Sciences**  
**Summer 2022**

NOTE: Due to the Covid-19 pandemic, there may be changes to the delivery of this course or the course policies based on short notice. Please stay updated of Dalhousie procedures and policies at <https://www.dal.ca/covid-19-information-and-updates.html>.

**SECTION A: COURSE INFORMATION**

**Dates:** August 8-September 4, 2022

**In-class location:** Harrison Lewis Coastal Discovery Centre, 339 Sandy Bay Rd, Port Joli, NS B0T 1S0

**Prerequisites:** Enrollment in a graduate program at Dalhousie University.

**Credit hours:** 3

**DELIVERY**

- August 8-19: Asynchronous, self-paced online lectures and quizzes
- August 20-28: Intensive field session on-site at the Harrison Lewis Coastal Discovery Centre
- August 29-September 4: No classes. Office hours will be available to support completion of final assignments.

**INSTRUCTION AND TA INFORMATION**

Co-instructor: Dr. Heather Cray (pronouns: she/her)

*Profile:* Available via [SRES](#).

*Contact:* Email ([hcray@dal.ca](mailto:hcray@dal.ca)): Response time 1-3 business days.

Co-instructor: Dr. Alana Westwood (pronouns: she/her)

*Profile:* Posted on the course website and [www.alanawestwood.com](http://www.alanawestwood.com).

*Contact:* In order of preference: 1) Microsoft Teams instant message. Response time <3 hours on working hours (9:00-17:30 M-F); 2) Email ([a.westwood@dal.ca](mailto:a.westwood@dal.ca)): Response time 1-3 business days.

Teaching Assistant: Riley Scanlan (pronouns: she/her)

**Office Hours:** Office hours will be held by appointment during the asynchronous periods of class time to support student learning: August 8-20. **Contact Heather or Alana** to schedule office hours prior to August 20. Alana will hold **drop-in office** hours to support finishing assignments on **Wednesday, August 31 and Thursday, September 1** from 10:00 AM to 3:00 PM.

**RECOGNITION OF MI'KMAQ TERRITORY**

Dalhousie University is located in Mi'kma'ki, the ancestral and unceded territory of the Mi'kmaq. We are all Treaty people. 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](mailto:Elders@dal.ca).

## **COURSE DESCRIPTION**

The course will provide you with the knowledge and practical skills that you need to design and implement field sampling procedures used widely in the environmental sciences by researchers, consultants, and technicians. These assessments of terrestrial and freshwater biotic and abiotic environmental conditions include organism sampling and identification, ecosystem classification and quantification, statistics, and considerations for field safety and ethics. Students will be expected to complete an asynchronous self-paced component which provides foundational information prior to the beginning of the 8-day intensive field trip to the South Shore of Nova Scotia. Nova Scotia is one of the most ecologically diverse provinces in Canada, and daytrips from our base camp location will provide students the opportunity to experience different ecological communities. Students will be assessed on materials including pre-field safety and protocol quizzes, Lab Reports based on field exercises, and field notebooks.

Student accommodation at the Harrison Lewis Coastal Discovery Centre (HLC), transport to the HLC and to field sites, and meals are included in the auxiliary course fee of \$500 per student.

## **COURSE OBJECTIVES AND LEARNING OUTCOMES**

Students in this class will be able to:

1. Design field sampling procedures to assess biotic and abiotic environmental conditions
2. Demonstrate best practice for writing field notes
3. Learn to use common statistical tests to compare ecological conditions and communities
4. Develop skills for identifying organisms using taxonomic keys and field guides
5. Assess relevant ethical issues when conducting field research
6. Identify and mitigate field safety considerations

## **COURSE FORMAT**

This course is designed as an intensive 8-day field course with an accompanying self-paced asynchronous component prior to the field days. The asynchronous component will be available to complete between August 8<sup>th</sup> and August 18<sup>th</sup> and consists of instructional videos, protocols, field collection ethics, and safety information. The asynchronous materials will be assessed via three quizzes which students will be required to complete between August 8<sup>th</sup> and August 18<sup>th</sup>. A minimum score of 90% will be required to pass the quizzes, which will have unlimited attempts.

The field component will run from August 20<sup>th</sup> to August 27<sup>th</sup> and be held at the Harrison Lewis Coastal Discovery Centre and surrounding field sites. Students will be staying on-site in shared cabins (or in tents if they prefer) for the duration of the intensive field component. During this time, field exercises and practical skills will be assessed via four Lab Reports, due September 4<sup>th</sup>. Students will also be assessed based on their Field Notes and a Course Reflection.

## COURSE MATERIALS

### *Required Resources*



Brightspace is our classroom space! This required reading (inclusive of text, video, and audio materials) will be provided through Brightspace. 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.

**There are no required textbooks or books to purchase for this course.** Students must have digital access to the university library as well as a computer or a functional tablet for word processing, and consistent access to the internet during the non-field portions. Learn more about digital tools available to students [at this link](#). If you require support for the course or university technologies you can contact Information Technology Services (ITS) at 1-800-869-3931 or [support@dal.ca](mailto:support@dal.ca)

### *Student packing checklist*

This checklist contains the required items that students should pack for the field course, in addition to recommended items. Please feel free to ask questions about items, and we encourage you to borrow/thrift items as needed.

Required items	Recommended items
Sleeping bag/bedding	Pocket knife or multi-tool
Pillow	Compass with clear plastic base, adjustable declination and sighting mirror
Sunglasses	Lighter or waterproof matches in waterproof case
Water bottles – at least 1L	GPS and extra batteries
Headlamp/flashlight and extra batteries	Camera/phone and charger/extra batteries
Rain gear (raincoat, rain pants, rain boots/water resistant boots)	Bathing suit
Personal toiletries (shampoo/conditioner, toothbrush, hair elastics, prescription medications, hairbrush, toothpaste, wash cloth, etc.)	Shoes for around camp
Towel	Special snacks for yourself and groups (if allergy-approved), e.g., chocolate bars, fancy coffee
Hiking boots/shoes	Camp chair for lounging
Insect repellent	Whistle
Backpack for carrying field gear ~35L size	Bug hat/bug jacket
Sunscreen	Clipboard/flat folding binder
Waterproof field notebook (Rite in the Rain or similar), minimum 120 pages	Binoculars and hand lens
Mechanical pencils/pens	Flipflops/sandals for shower
Hat	Field guides
Clothing (including warm layers, shorts, long pants, shirts, socks, underwear)	Extra socks (more socks than you think you need)
Laptop computer and charging cable	Drybag (waterproof bag for phone/camera etc.)
Stuff to pack your lunch (Ziploc bags, Tupperware, etc.)	Personal field supply of toilet paper in a waterproof bag
Cellphone and charger	Rubber boots

### *Optional Resources*

Although field guides and support materials for species and ecosystem classification and identification will be provided, students may wish to have their own copies of these materials so that they can take notes in them and keep them for future reference. Some recommended field guides include:

- Trees of Canada (Farrar)
- Maritimes Plants & Shrubs (Boland)
- Wildflowers of Nova Scotia (Boland)
- Birds of Eastern Canada (Bird)

### *Field site details*

The field component will be located at the Harrison Lewis Coastal Discovery Centre, which includes a shared work and meeting space, a shared kitchen, shared cabins for sleeping, outdoor private showers and indoor bathrooms with plumbing. Students may choose to bring their own tents and stay on the grounds if they wish, but this is not required. There are no laundry facilities available or nearby. Internet access is available in the main building and Cabin 1, but due to the remote, forested location, the connection is unreliable. Students will be expected to remain on-site for the duration of the field component.

Transportation to and from Halifax (Studley campus) to the field sites will be by shared transportation rented by the University.

## **SECTION B: EVALUATION AND COURSE SCHEDULE**

### **EVALUATION**

Assessment	Weight	Due Date
Field Notes	35%	September 4
Quiz 1: Safety	2%*	August 18
Quiz 2: Fieldwork Methods	2%*	August 18
Quiz 3: Fieldwork Ethics	2%*	August 18
Lab Report 1	18%	Final version: September 4
Lab Report 2	18%	Final version: September 4
Lab Report 3	18%	Final version: September 4
Course overall performance and reflection	5%	September 4

\*Minimum score of 90% is required to pass all quizzes. Unlimited attempts are allowed.

For each assessment item, a detailed instruction sheet as well as marking rubric will be provided on Brightspace. Short summaries of each assessment are as follows:

**Field notes:** Each student is required to create and maintain a comprehensive set of field notes which will be submitted at the end of the course. Specific instructions and guidelines for Field Notes will be provided by the course Instructors both in advance of the field component and during the course. Field notes should include data on weather conditions, geographic locations, species and location sketches, dates, environmental data collected and any observation or any ideas that you feel are important. Field Notes will be marked on their comprehensiveness, organization, and effectiveness. It is recommended you

keep a daily log in order to maintain efficiency of this exercise. Notes may be submitted as original handwritten notes, though they can be transcribed by the student to digital format if they are likely to be deemed illegible. It is useful to purchase a good quality field notebook (waterproof paper) with a set of pencils (a normal pen will run if rained on) and a good small sharpener or a set of waterproof pens.

**Quizzes:** The asynchronous component of the course will be available to complete between August 8th and August 18th and consists of articles, protocols, field collection ethics, and safety information. The asynchronous materials will be assessed via three quizzes which students will be required to complete between August 8th and August 18th. A minimum score of 90% will be required to pass the quizzes, which will have unlimited attempts.

**Lab reports:** Lab reports will be used to assess the technical skills learned and their application to data analysis. Specific instructions will be given in advance and in the field for each of the three lab reports. Students will collect and enter data, conduct required data analysis, and provide a written report on the findings and their implications. Students will be expected to conduct statistical analysis (with instructions) and produce graphs and tables in Excel, R, or SPSS and be given troubleshooting support from the instructors to do so. Each lab report will be on a different environmental variable (e.g., ecological community diversity, sampling design, estimation of forest structure and characteristics).

**Course overall performance and reflection:** You will be assessed by the instructors on your general experience in our learning community, your cooperative performance in the field, your conscientious participation as a member of the field research team, and any special contributions. To assist us in doing this, we ask you to submit a short reflection (500 words) which includes your contributions to the course and a reflection on your personal learning with respect to the course learning outcomes; what you specifically focus on in this reflection can be varied, from the methods and techniques you have learned, experiences in the field, working in teams, learning to observe, etc.

## GRADING SCHEME

The course grading scheme follows FGS guidelines for Graduate students. Letter Grade Numerical (%) Equivalent for FGS:

A+	90-100
A	85-89
A-	80-84
B+	77-79
B	73-76
B-	70-72
F	<70

## COURSE SCHEDULE

Session	Topics	Tasks
<b>Pre-field block (Aug 8-19<sup>th</sup>)</b>	<ul style="list-style-type: none"> <li>• Lecture &amp; readings: Field safety</li> <li>• Lecture &amp; readings: Methods and protocols for ecological and biological sampling</li> <li>• Lecture &amp; readings: Fieldwork ethic</li> <li>• Assignment: Introducing field notes</li> <li>• Assignment: Introducing lab reports</li> <li>• Introducing course reflection</li> </ul>	<ul style="list-style-type: none"> <li>• Submit waivers &amp; medical information (due Aug 12)</li> <li>• Complete Quiz 1 (due Aug 18)</li> <li>• Complete Quiz 2 (due Aug 18)</li> <li>• Complete Quiz 3 (due Aug 18)</li> <li>• Pack and prepare for fieldwork</li> <li>• Sign up for cooking &amp; cleaning duties at the field station</li> </ul>
<b>Field block (Aug 20-27<sup>th</sup>)</b>	<ul style="list-style-type: none"> <li>• Aug 20: Pick up from Dalhousie by bus, arrival and orientation to Harrison Lewis Centre (HLC), selecting cabins, discussing group norms and fieldwork protocols</li> <li>• Aug 21-26: Field sessions (next page)</li> <li>• Aug 27: Communal clean-up and pack-up of HLC, departure and returning of equipment</li> </ul>	<ul style="list-style-type: none"> <li>• Complete assigned field exercises during the day</li> <li>• In the evenings, start on your lab reports back at the HLC</li> <li>• Occasional evening field activities (timing determined by weather), i.e., insect light trapping</li> </ul>
<b>Post-field block (Aug 28-Sept 4)</b>	<ul style="list-style-type: none"> <li>• Complete assignments and attend drop-in office hours or schedule office hours as needed</li> <li>• Drop-in office hours: 10am – 3pm on August 30 &amp; 31 in Alana’s office</li> </ul>	<ul style="list-style-type: none"> <li>• Complete Lab Report 1 (due Sept 4)</li> <li>• Complete Lab Report 2 (due Sept 4)</li> <li>• Complete Lab Report 3 (due Sept 4)</li> <li>• Complete Field Notebook (due Sept 4)</li> <li>• Complete Course Reflection (due Sept 4)</li> </ul>

## ANTICIPATED FIELD SESSION SCHEDULE

Date Day #	Sat Aug 20 1 (HC&AW)	Sun Aug 21 2 (HC&AW)	Mon Aug 22 3 (HC&AW)	Tues Aug 23 4 (HC&AW)	Wed Aug 24 5 (HC)	Thurs Aug 25 6 (HC)	Fri Aug 26 7 (HC)	Sat Aug 27 8 (HC)
Theme	ORIENTATION	FOREST STRUCTURE & DIVERSITY	FOREST STRUCTURE & DIVERSITY	BIRDS, REPTILES, & AMPHIBIANS	FRESHWATER	INVERTEBRATES	WRAP-UP	DEPARTURE
6:00				Exercise 3: Dawn chorus point counts				
6:30								
7:00								
7:30								
8:00		Breakfast	Breakfast + pack lunches	Breakfast	Breakfast + pack lunches	Breakfast + pack lunches	Breakfast + pack lunches	Breakfast
8:30								
9:00	Bus leaves from Dal to HLC	Exercise 2: Skill teaching	Exercise 2: Sample forest site 2	Exercise 2&3: Uploading citizen science checklists Exercise 4: Overview	Exercise 5: Skill teaching for water sampling	Exercise 6: Skill teaching for diurnal invertebrate sampling	Guest speaker: Lucas Berrigan, MOTUS bird tracking	Packing & cleaning the HLC
9:30								
10:00								
10:30								Bus picks us up to head back to Dal
11:00								
11:30	Unpacking time							
12:00		Lunch at HLC						
12:30			Lunch in field	Lunch at HLC	Lunch in field	Lunch in field	Lunch at HLC	
13:00	Site Tour, Norm Setting discussion, safety, and Lunch							
13:30		Exercise 2: Sample forest site 1	Exercise 3: Sample forest site 3	Exercise 4: Herptile surveys	Exercise 5: Water sampling	Exercise 6: Diurnal invertebrate sampling	Additional data collection or supplementing field notes for any exercise; course review	
14:00								
14:30								
15:00	Exercise 1: Orienteering session							
15:30								
16:00								
16:30								
17:00								
17:30	Dinner prep, eating, clean-up	Dinner	Dinner	Dinner	Dinner	Dinner	Dinner	
18:00								
18:30								
19:00								
19:30								
20:00	Field notes instructions	Chill time	Skill teaching for Exercise 3: Bird Surveys	Chill time	Chill time	Chill time	Chill time	
20:30		Field notes		Field notes	Field notes	Field notes	Field notes	
21:00	Chill time	Lab reports		Lab reports	Lab reports	Lab reports	Lab reports	
21:30								
22:00						Exercise 7: Nocturnal insect sampling		
22:30	Quiet time/lights out	Quiet time/lights out	Quiet time/lights out	Quiet time/lights out	Quiet time/lights out		Quiet time/lights out	
23:00								

Note: Activity schedule may be subject to change due to inclement weather or logistical challenges. Updates to the schedule will be communicated by the instructors as soon as they are known.

## SECTION C: COURSE-SPECIFIC POLICIES

- 1. Safety is your responsibility.** There are inherent dangers involved in any on-site field instruction or field trips. Students will receive training on field safety and instructions on appropriate clothing and protective equipment. **Students who do not pass the associated quizzes will not be permitted to attend the field portion of the class.**
- 2. Attendance and participation are your responsibility.** You are expected to attend the entire field session, and review all course content, including asynchronous material. Come to the field components prepared to engage in discussion with other students and your professors. You will regularly be split into subgroups to work and should be prepared by having reviewed protocols and field schedules in advance.
- 3. Alcohol and drugs are NOT permitted in the field camp and cigarette smoking can only be conducted in specified locations.** At field sites, cigarette smoking is only permitted a minimum of 50 metres from all other personnel and on an asphalt or gravel surface (e.g., road) due to the risk of forest fires. At the HLC, cigarette smoking may only be conducted outdoors and a minimum of 50 metres from all other personnel. **Students violating this rule may be asked to leave at their own expense.**
- 4. Collegiality.** 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.
- 5. Weather considerations:** Students are expected to come to the field prepared for the variable weather conditions. We will not do fieldwork in unsafe thunderstorm conditions, but we will go rain or shine otherwise so rain gear (boots, coat, pants) is strongly advised. Although we are working in August, nighttime temperatures at the coast drop considerably and warm layers (e.g., sweaters, long pants, warm hat) are strongly recommended.
- 6. 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.
- 7. 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.
- 8. Your wellness and inclusion is 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 should be proactive and inclusive, with the course designed for all. 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.



**SECTION D: DALHOUSIE POLICIES****CAMPUS SERVICES**

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. Students enrolled in School for Resource and Environmental Studies-delivered programs (MREM or MES) with questions or concerns related to their studies, course selections and degree requirements or other learning experiences, can contact Brenda Smart [brenda.smart@dal.ca](mailto:brenda.smart@dal.ca)

[Accessibility and academic support](#) – the advising and Access Centre and the Student Success Centre (Agricultural Campus) serve as Dalhousie’s centres for expertise on student accessibility and accommodation. Their work is governed by Dalhousie’s Student Accommodation Policy to best support the needs of Dalhousie students. Their team works with students who request accommodation as a result of: disability, religious obligation, an experienced barrier related to any other characteristic protected under Canadian Human Rights legislation, and for other reasons.

[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](mailto: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.

[Student Health & Wellness](#) – Doctors, nurses, nurse practitioners, counsellors, and psychologists are available to all Dalhousie students. There are often on-call and same-day appointments available.

[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.

## DALHOUSIE POLICIES AND CODES OF CONDUCT

**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. If an informal resolution can't be reached, or would be inappropriate, procedures exist for formal dispute resolution. (read more: [here](#))

**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. (read more: [here](#))

**Fair Dealing:** Copyright infringement is prohibit. (read more: [here](#))

**Recognition of Mi'kmaq Territory:** Dalhousie University acknowledges that it is located on Traditional Mi'kmaq Territory. The Elders in Residence program provides students with access to First Nations elders for guidance, counsel, and support. You can contact the programs at [elders@dal.ca](mailto:elders@dal.ca) or 902-494-6803 (leave a message).

**University Policies:** “This course is governed by the academic rules and regulations set forth in the University Calendar and the Senate.” (read more: [here](#))

## PLAGIARISM

The commitment of the Faculty of Management is to graduate future leaders of business, government and civil society who manage with integrity and get things done. This is non-negotiable in our community and it starts with your first class at Dalhousie University. So when you submit any work for evaluation in this course or any other, please ensure that you are familiar with your obligations under the Faculty of Management's Academic Integrity Policies and that you understand where to go for help and advice in living up to our standards. 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 Dalhousie Libraries' online [Citing & Writing](#) tutorials.

Do not plagiarize any materials for this course. For further guidance on what constitutes plagiarism, how to avoid it, and proper methods for attributing sources, please consult the University Secretariat's [Academic Integrity](#) page.

Please note that Dalhousie subscribes to plagiarism detection software that checks for originality in submitted papers. 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. It is essential that there be correct attribution of authorities from which facts and opinions have been derived. At Dalhousie, there are University Regulations which deal with plagiarism and, prior to submitting any paper in a course; students should read the [Policy on Intellectual Dishonesty](#) contained in the Calendar.

Furthermore, the University's Senate has affirmed the right of any instructor to require that student assignments be submitted in both written and computer readable format, e.g.: a text file or as an email attachment, and to submit any paper to a check such as that performed by the plagiarism detection software. As a student in this class, you are to keep an electronic copy of any paper you submit, and the course instructor may require you to submit that electronic copy on demand. Use of third-party originality checking software does not preclude instructor use of alternate means to identify lapses in originality and attribution. The result of such assessment may be used as evidence in any disciplinary action taken by the Senate.

Finally: If you suspect cheating by colleagues, you may use the confidential email: [managementintegrity@dal.ca](mailto:managementintegrity@dal.ca) which is read only by the Assistant Academic Integrity Officer.

#### **Faculty of Management clarification on plagiarism versus collaboration:**

There are many forms of plagiarism, for instance, copying on exams and assignments. There is a clear line between group work on assignments when explicitly authorised by the professor and copying solutions from others. It is permissible to work on assignments with your friends but only when the professor gives you permission in the specific context of the assignment. University rules clearly stipulate that all assignments should be undertaken individually unless specifically authorised.

Specific examples of plagiarism include, but are not limited to, the following:

- Copying a computer file from another student, and using it as a template for your own solution
- Copying text written by another student
- Submitting the work of someone else, including that of a tutor as your own

An example of acceptable collaboration includes the following:

When authorised by the professor, discussing the issues and underlying factors of a case with fellow students, and then each of the students writing up their submissions individually, from start to finish.

#### **ACADEMIC INTEGRITY**

Academic integrity is a commitment to the values of learning in an academic environment. These values include honesty, trust, fairness, responsibility, and respect<sup>1</sup>. All members of the Dalhousie community must acknowledge that academic integrity is fundamental to the value and credibility of academic work and inquiry. We must seek to uphold academic integrity through our actions and behaviours in all our learning environments, our research, and our service.

<sup>1</sup>*“The Fundamental Values of Academic Integrity” (2nd edition), developed by the International Center for Academic Integrity (ICAI).*

*What does academic integrity mean?*

*At university we advance knowledge by building on the work of other people. Academic integrity means that we are honest and accurate in creating and communicating all academic products.*

*Acknowledgement of other people's work must be done in a way that does not leave the reader in any doubt as to whose work it is. Academic integrity means trustworthy conduct such as not cheating on examinations and not misrepresenting information. Academic dishonesty is unfair to honest students. It is the student's responsibility to seek assistance to ensure that these standards are met.*

*How can you achieve academic integrity?*

- make sure you understand [Dalhousie's policies on academic integrity](#)
- do not cheat in examinations or write an exam or test for someone else
- do not falsify data or lab results
- do not share/access assignment and exam questions or answers by any means
- Be sure not to **plagiarize**, intentionally or unintentionally, for example...
  - clearly indicate the sources used in your written or oral work. This includes computer codes/ programs, artistic or architectural works, scientific projects, data sets, performances, web page designs, graphical representations, diagrams, videos, and images
  - do not use the work of another from the Internet or any other source and submit it as your own
  - learn how to [paraphrase](#) to avoid copying and pasting phrases or sentences.
  - when you use the ideas of other people (paraphrasing), make sure to [acknowledge the source](#)
  - do not submit work that has been completed through collaboration as your own personal work
  - do not submit work that you completed for another assignment in the same course or a different course without permission from your instructor (this is self-plagiarism)
  - do not take discussion ideas from another student and present them as your own ideas
  - if limited collaboration or discussion of an individual assignment is permitted by your instructor, you must be certain to write your own assignment from start to finish without using the words of another student as your own, and you must acknowledge the collaborators and the extent of the collaboration. If you are not sure, talk to your professor.

These examples should be considered only as a guide and not an exhaustive list.

Where can you turn for help?

If you are ever unsure about any aspect of your academic work, contact your professor or your TA.

1. [Academic Integrity website](#) - Links to policies, definitions, online tutorials, tips on citing and paraphrasing, discipline flow chart
2. [Writing Centre](#) - Assistance with learning to write academic documents, reviewing papers for discipline-specific writing standards, organization, argument, transitions, writing styles and citations

3. [Dalhousie Libraries](#) - Workshops, online tutorials, citation guides, Assignment Calculator, RefWorks
4. [Dalhousie Student Advocacy Service](#) - Assists students with academic appeals and student discipline procedures

What tools does your instructor have to detect academic integrity offences?

- Dalhousie subscribes to [Urkund](#), plagiarism detection software that checks for originality in submitted papers. 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. Urkund includes work from other student submissions, from the current year and past years.
- Instructors can find their course materials posted on Chegg or Course Hero or any other “online tutoring” service and can request the identity of the contributors and students who accessed the information.
- A simple google search of suspicious text can reveal improper citation and plagiarism.
- Dalhousie Senate has affirmed the right of any instructor to require that student assignments be submitted in both written and computer readable format, e.g.: a text file or as an email attachment, and to submit any paper to a check such as that performed by the plagiarism detection software. As a student in this class, you are to keep an electronic copy of any paper you submit, and the course instructor may require you to submit that electronic copy on demand. Use of third-party originality checking software does not preclude instructor use of alternate means to identify lapses in originality and attribution. The result of such assessment may be used as evidence in any disciplinary action taken by the Senate.

What will happen if an allegation of an academic offence is made against you?

As your instructor, I am required to report every suspected offence. The full process is on the [Academic Integrity website](#) (See Faculty Discipline Procedure and Discipline Flowchart) and includes:

- The Faculty of Management Academic Integrity Officer (AIO) receives allegations from instructors
- Based on the evidence provided, the AIO decides if there is evidence to proceed with the allegation and you will be notified of the process
- If the case proceeds, you will receive a PENDING grade until the matter is resolved, typically after a hearing by the Senate committee that adjudicates AI allegations.

If you are found guilty of an offence, a penalty will be assigned ranging from a warning, to failure of the assignment or failure of the class, to expulsion from the University. Penalties may also include a notation on your transcript that indicates that you have committed an academic offence.