



BIOL 1021

Introductory Biology II: Organismal Biology and Ecology

Summer 2020

Welcome to the Course!

BIOL 1021 introduces you to the language, concepts and practice of biology. This course is concerned with features that characterize whole organisms, and with ecological relationships. Topics include plants and fungi: life cycles, structure and function, photosynthesis; animals: structure and function, physiology and development; ecology: processes at the population, community and the biosphere levels of organization. The course is appropriate for students planning to major in biology and marine biology, in which case BIOL 1020 (or BIOL 1010) should also be taken. It is also appropriate for non-majors wishing to gain an understanding of the science underlying topical issues such as disease and climate change.

Prerequisites. Although high school chemistry and biology are recommended, there are no prerequisites for this course, nor is this course a prerequisite for BIOL 1020 (online) or BIOL 1010 (face-to-face).

Getting Started. The course is available on the first day of term; all you need to get started is an [activated NetID](#). The first lesson is an Orientation, which presents a tour of the course structure and gives you the opportunity to try out Brightspace's tools. For the technical requirements related to the course, please visit the [BIOL 1020/21 public information site](#).

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Instructor:
Jennifer Van Dommelen

E-mail: biol1021@dal.ca

Lectures: recorded lectures posted in Brightspace

Laboratories: conducted online / at home (six labs in total)

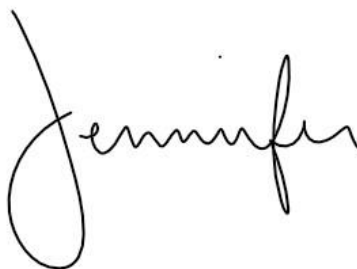
Office Hours:
drop-in or by appointment via Collaborate Ultra in Brightspace; non-mandatory, drop-in schedule TBA

Hello from the Instructor

My name is Jennifer Van Dommelen, and I am a Senior Instructor in the Biology Department. I am the primary instructor in BIOL 1020 and BIOL 1021, and I also do development and supervisory work in the teaching labs for our face-to-face courses, BIOL 1010 and BIOL 1011. I am an [undergraduate advisor](#) in the [Department of Biology](#) and I work with Dalhousie's [Centre for Learning and Teaching](#) on a number of projects related to e-learning.

I am interested in the roles of cognitive science and research evidence in teaching and learning; in addition to my teaching and service work I'm currently working on a Master of Science in Education through the [University of Southampton](#). (I'm an online student too!)

There is also a number of Teaching Assistants (TAs) who work with me here in BIOL 1021 and you will be meeting them shortly after the term begins. We're looking forward to working and learning with you!




Staying in Touch

The best way to reach me is via e-mail, at biol1021@dal.ca. During the regular work week (Monday-Friday) I typically respond to e-mails within 24 hours. On weekends I monitor e-mail as my schedule permits, but I may not reply until Monday. If I need to reach you, I will use your Dalhousie e-mail address.

I can also meet with you in real time for audio or video conversation via Collaborate Ultra, our web conferencing tool – just send me an e-mail to arrange a time!

Learning Outcomes

The learning outcomes for the course are listed below; in addition, each lesson on the course website includes a detailed set of learning objectives related to the specific topics of the lesson.

Upon the successful completion of this course, you will have had the opportunity to explore skills and concepts related to all the course objectives, and you will have a solid foundation for pursuing upper-level studies in biology.

You may also want to consider your own personal learning objectives, whether they are specific to this course or more general. What do you expect to learn in an introductory biology course? What would you *like* to learn in an introductory biology course? What are your general learning and academic goals?



Learning Outcomes for Unit I: Plants and Fungi

- Describe the process of photosynthesis and the main steps and products of each component of the process.
- Understand the features that allowed plants to transition from aquatic to terrestrial environments.
- Understand plant sexual reproduction and how it differs among the major plant groups.
- Know the life cycles of major plant groups.
- Describe the major plant cell, tissue, and organ types.
- Understand how land plants grow in length and diameter.
- Understand how land plants transport fluids and solutes within the body.
- Understand how plant hormones allow plants to respond to environmental cues.
- Know basic features of the major groups of fungi, including structure, growth and life cycles.
- Understand fungal ecological roles, relationships with humans and uses by humans.



Learning Outcomes for Unit II: Animal Biology

- Define an animal, using the shared characteristics of animals.
- Describe basic animal body plans, and relate different tissue types to their functions.
- Define homeostasis and explain its maintenance through negative feedback mechanisms, using appropriate examples.
- Describe early developmental processes in model animals (sea urchins, frogs).
- Compare and contrast signaling in the nervous and endocrine systems, and explain how the mechanisms allow for body-wide communication and coordination of a variety of functions.
- Describe mechanisms used by animals to obtain energy and nutrients, with emphasis on mammalian digestive systems.
- Describe mechanisms used by animals to exchange gases with their external environment, with emphasis on mammalian respiratory systems.
- Describe the long distance transport of materials within animal bodies, with emphasis on mammalian circulatory systems.
- Describe mechanisms of osmoregulation and thermoregulation in a variety of animals.
- Describe basic elements of immune systems and how they function to protect animals from pathogens.
- Describe skeletal muscle structure and function; describe various forms of locomotion with respect to their biomechanics and energetics.
- Provide examples of the interconnected functioning of multiple organ systems.



Learning Outcomes for Unit III: Ecology

- Explain exponential population growth and intraspecific competition.
- Use simple models to describe unlimited (exponential) and limited (logistic) population growth.
- Provide examples of how biological interactions (competition, predation, mutualism) structure communities.
- Explain why community or food web structure is likely to change if a top predator is removed.
- Explain how humans are altering the global nitrogen (biogeochemical) cycle.
- Interpret animal social behaviour in the light of natural selection (costs and benefits).
- Provide an example of a life history trade-off.
- Explain why small population size is of concern to conservation biologists.



Learning Outcomes for Labs

- Identify the design elements of an existing experiment, paying particular attention to the role of controls.
- Collect both quantitative and qualitative data through careful observations.
- Present data using written descriptions, graphs, tables, and sketches, and interpret data to assess hypotheses and generate conclusions.
- Analyze data using basic statistical concepts (mean, standard deviation, standard error, n , 95% confidence interval).
- Use mathematical analysis to determine population size and growth patterns.

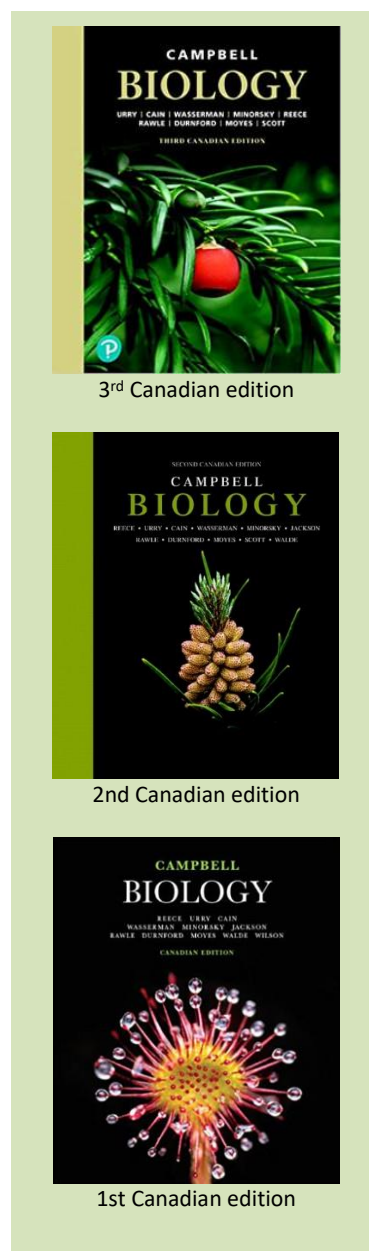
Lesson Topics, Textbook, and Readings

The required textbook for this course is any recent edition from the *Campbell Biology* series, including Canadian editions 1-3 and US editions 9-13. This is the same book that is used in BIOL 1010 and BIOL 1011 (the face-to-face courses). The e-text version of the 2nd Canadian edition is available at the [Dalhousie Bookstore](http://DalhousieBookstore). You may also be able to locate hard copies of the textbook (any edition) at other retailers.

The chapters listed below apply to any of the editions of the textbook. Detailed learning objectives that will help you focus on the most relevant material from the chapter are provided in the course website.

Lesson Number and Topic	Chapter(s)
Lesson 1: Orientation	n/a
Unit I: Plants and Fungi	
Lesson 2: Photosynthesis	10
Lesson 3: Plant Diversity	29 and 30
Lesson 4: Structure, Growth, Development, and Transport in Plants	35 and 36
Lesson 5: Plant Control Systems and Fungi	39 and 31
Unit II: Animal Biology	
Lesson 6: Animal Form, Function, Nutrition, and Locomotion	40, 41, and 50
Lesson 7: Circulation and Gas Exchange	42
Lesson 8: The Immune System and Osmoregulation and Excretion	43 and 44
Lesson 9: Hormones & the Endocrine System and Animal Development	45 and 47
Unit III: Ecology	
Lesson 10: The Biosphere and Population Ecology	52 and 53
Lesson 11: Community Ecology, Ecosystems, and Restoration Ecology	54 and 55
Lesson 12: Behavioural Ecology and Conservation Biology	51, 56, and 37

Depending on where you buy your book and whether you buy a new or used copy, your purchase may also include supplements such as print study guides or access codes to electronic media such as an e-book or MasteringBiology® (or they may be available for purchase separately). These supplements are **not** required, but you are welcome to use them.



Course Schedule

This page presents an overview; a complete course schedule containing all fixed due dates and deadlines for the course is provided as a separate document on Brightspace. A combined schedule with dates relevant to both BIOL 1021 and BIOL 1020 is also available, for the convenience of students who are taking both courses concurrently.

Lessons. Lessons typically run from Monday-Sunday. Unless otherwise indicated, all lesson content is available at all times and you are free to review it whenever you like.

Graded Quizzes. Due most Wednesdays at **11:30 pm Atlantic** time.

Extra Practice Quizzes. Available shortly after the deadline for a graded quiz has passed, until the end of the course. Extra Practice Quizzes are optional, and there is no deadline for submission.

Labs. Due on alternate Mondays at **11:30 pm Atlantic** time.

Exams. There is one exam at the end of each unit of the course, during the week following the last lesson of the unit.

For more information about these and other course components, see the [Learning Activities](#) section of this syllabus.



Pro Tip: Timing and Deadlines

If you are not located in the Atlantic time zone, use this [Time Zone Converter](#) to determine deadlines in your local time. Make note of them on the full schedule!

Graded quizzes and labs are due at the same time in BIOL 1020 and BIOL 1021. If you are taking both courses concurrently, please plan your time so that you can submit your work for both courses by the posted deadlines.

Course Schedule Summary for Summer 2020

Lessons: Monday to Sunday; Orientation begins June 4th (12 lessons in total including the Orientation)

Graded Quizzes: due most Wednesdays at 11:30 pm, starting June 17th

Labs: due alternate Mondays at 11:30 pm, starting June 22nd

Exam I: July 10th (Unit I); availability details To Be Announced

Exam II: August 7th (Unit II); availability details To Be Announced

Exam III: August 28th (Unit III plus labs); availability details To Be Announced

Lectures: n/a (recordings posted online)

Learning Activities

There are a variety of learning activities in the course, some of which you will participate in every week and others only occasionally.

Readings and Lectures

BIOL 1021 is a 'flipped course' in the sense that unlike some of your face-to-face courses, the lectures are *not* intended to be the primary mode by which you learn the material. In BIOL 1021, readings are supported by the lectures, rather than the other way around. The goal of the lecture series is to highlight the thematic connections among the topics of the course as well as to give greater attention to topics and concepts that students traditionally find difficult.

Quizzes

Graded Quizzes. Each lesson includes an online quiz. The questions are randomly selected from a testbank; each quiz and each attempt is unique. Quizzes are automatically graded, and you will see your score immediately upon submitting the quiz. You will get two attempts at each (graded) quiz, and the higher score will count toward your final grade. Each lesson quiz includes questions from each of the three previous lessons to help you recall material that came previously.

Extra Practice Quizzes. In addition to the graded quizzes (i.e., those quizzes that count toward your final grade), there are Extra Practice Quizzes. These are nearly identical to the graded quizzes, but you get unlimited attempts at them, and your scores do not count toward your final grade. Extra Practice Quizzes are available automatically shortly after the deadline for a graded quiz passes, with the exception of the Extra Practice Quizzes for Lessons 5, 9, and 12, which are released at the same time as those for Lessons 4, 8, and 11, respectively (so that you have more time to use them to prepare for the exams).



Pro Tip: Lectures

Lectures in BIOL 1021 do not explicitly address all the learning objectives of the course and are not mandatory to view. You can meet all the learning objectives of a lesson by doing the readings and other required activities. But you *can't* meet all the learning objectives of a lesson by *only* watching the lecture!



Pro Tip: Learning and Memory

Quizzes are a form of **retrieval practice** – activities that help you learn by pulling information out of your brain, rather than by cramming it in!

Discussion Board Participation

Each week, a small number of students will be assigned to post to the Discussion Board, to start a thread related to the course learning objectives. Posts will be graded according to a rubric. In addition, all content-related posts made to the Discussion Board at any time by anyone are eligible for bonus marks. For full details, see the **Discussion Board Participation** module in the Table of Contents of the course site.

Lab Assignments

Labs vary in style from problem solving to online investigations and activities that will take you away from the computer. Detailed information about each lab is provided in the **Labs** module in the Table of Contents of the course site.

Exams

Exams are learning activities too! There is one exam per Unit of the course, consisting of multiple-choice and short-answer questions. Exams are written online, in Brightspace. We're trying a couple of new things with exams for the Summer 2020 term, so watch for announcements from the instructor with further details!

Synchronous Tutorials / Office Hours

New for Summer 2020! We'll be offering real-time sessions via Collaborate Ultra, located in Brightspace. Schedule and exact format To Be Announced, but these sessions will be focused on support and accountability rather than lecturing. We can also use Collaborate Ultra for private meetings by appointment.



Pro Tip: Discussions

The Bonus Discussions are your opportunity to earn extra credit – a lab's worth! – in the course. The catch is that you have to post by a deadline: once the Unit is over, you can't earn the bonus for that Unit.



FAQ: Labs

Labs are a required component of the course, even if you are repeating it or have taken BIOL 1011. Your lab marks from BIOL 1011 do not transfer to BIOL 1021 (or vice versa).

Grading Scheme

Your final mark in this course is based on several components and there is considerable flexibility in the marking scheme.

Assessment	Marks	Details
Quizzes	5	eleven quizzes at 0.5 marks each; lowest mark dropped
Labs	18	six labs at 3 marks each; one mulligan permitted (see below)
Exam I	25	Unit I; multiple-choice and short answer; 120 minutes; available for 12 hours; local start time TBA
Exam II	25	Unit II; multiple-choice and short answer; 120 minutes; available for 12 hours; local start time TBA
Exam III	25	Unit III and labs; multiple-choice and short answer; 120 minutes; available for 12 hours; local start time TBA
Discussion Board Participation (Required)	2	each student is required to post to the Discussion Board once during the term
Discussion Board Participation (Bonus)	3	bonus marks are awarded at the end of each unit for qualifying Discussion Board posts
Total	100 + 3	

Final Grade Conversion

We use the [Dalhousie Common Grade Scale](#); i.e.:

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



Pro Tip: Mulligan Day

On or near the last day of the term (see the schedule for the exact date); Mulligan Day is your chance to submit any ONE lab that you have not already submitted for grading. If you miss a lab during the term for any reason, you can submit it on Mulligan Day with no questions asked!

Policies and Expectations

The instructor and teaching assistants in this course are here to support your learning and help you in any way we can. You can expect us to respond to private messages within 24 hours during the week (Monday-Friday), and return your labs to you within one week of submission. We may not necessarily respond to posts on the Discussion Board within 24 hours -- depending on the thread, we may wait a little longer to give as many students as possible a chance to respond and participate.

You can also expect regular general feedback and interaction from us in the form of announcements, office hours, and web conferences, which can be scheduled upon request at mutually convenient times.

Participation

For your part, it's important to maintain consistent, regular effort in the course or it can quickly become overwhelming. You should plan to check in frequently and submit work on a weekly basis.

Each week you can plan to spend:

- 1-2 hours reading online content
- 3-5 hours on textbook readings
- 2-4 hours preparing assignments
- 1-2 hours on graded quizzes (quiz submission, not preparation)
- time reading and responding to discussion posts (variable)
- time viewing recorded lectures (variable)
- time on Extra Practice Quizzes (variable)

In other words, schedule 7-13 hours per week for this course, which is the same amount of time that you are expected to spend on a comparable face-to-face course, including lectures, labs, and independent study time. Some weeks you'll be at the lower end of the range, some weeks you may go over. It depends on your background experience, working style, and how well you take to the material.



Pro Tip: Planning Your Effort

Taking a course online is not necessarily easier or faster than taking it in a regular classroom. It could take as much or more time than a face-to-face course; the convenience is that you don't have to come to campus to attend class/lab at a set time every week.

Think of it as a work-at-your-own *place* (rather than a work-at-your-own-pace) course.

Absences and Late Work

It is better to maintain your momentum and progress in the course than to get bogged down by minor setbacks. Instead of offering extensions, we have 'buffers' in place to help you recover marks lost due to missed submissions:

- Your lowest quiz mark is dropped from the final grade calculation, so missing one of these will not affect your final grade. If you miss more quizzes, the marks lost are small and you still have access to the Extra Practice Quizzes to help you prepare for the exams.
- You can take advantage of Mulligan Day if you miss a lab assignment.
- You can earn bonus marks on the Discussion Board.

Dropping the Course

We hate to see you go, but if you decide that you want to drop the course, you must do so via [DalOnline](#). Failure to participate does not constitute withdrawal from the course, and failure to withdraw can cause problems with your transcript and bank account! If you remain registered in the course, even if you don't participate, you will receive a final grade of 'INC' (for 'incomplete'), which will affect your GPA and require a waiver to reverse. If you drop the course via DalOnline by the relevant deadlines, you are eligible for a partial tuition refund.



Pro Tip: Tech Support

Stable high-speed internet access, updated software, and common-sense measures such as a back-up plan for your files and access to an alternate device in case of emergency will go a long way toward preventing most technical problems in this course. Brightspace is a robust platform that works well on most devices and rarely experiences downtime.

If you run into technical problems, let us know as soon as possible – we can help!

biol1021@dal.ca

Make-Up Exams and Special Arrangements

While you are expected to make every reasonable effort to write the exams on their scheduled dates, we understand that life gets in the way and can be flexible where necessary. The most important thing to remember is to contact the instructor at biol1021@dal.ca as soon as you anticipate a conflict, or as soon as possible after an unexpected event.

Per Section 16.8 of Dalhousie's [Academic Regulations](#) (see also [University Regulations; Policy for the Scheduling of Courses/Examinations](#)), arrangements for missed exams and other work are made at the instructor's discretion.

Student Declaration of Absence

For short-term absences (3 days or fewer) due as illness, injury, or other professional or academic obligations that conflict with an exam, you should:

- (1) contact the instructor as soon as you are aware of the conflict, and
- (2) submit a [Student Declaration of Absence](#) (SDA), available as an “assignment” in Brightspace, within three days of your absence. No other documentation is required.

SDAs are required for missed exams only; they are *not* required for missed quizzes, labs, or discussions.

If you experience or anticipate a longer-term absence (more than three days), contact the instructor to work out a plan for completing and submitting your work.

Academic Accommodations and Students With Disabilities

Students may [request accommodation](#) as a result of barriers related to disability, religious obligation, or any characteristic included in the Nova Scotia Human Rights Act. Students who require academic accommodation for either course participation or the writing of tests, quizzes, and exams should contact the [Student Accessibility Centre](#) (Halifax) or the [Student Success Centre](#) (Truro) prior to or at the outset of each academic term.

See also Dalhousie University's [Student Accommodation Policy](#).



Pro Tip: Disclosure

If you need some flexibility with deadlines or other assistance of some kind, please let the instructor know. The sooner you reach out, the more options there are for solutions.

It is *not* necessary, however, to provide documentation (other than the SDA as described at left) or to share any details about your personal situation if you are not comfortable doing so.

Academic Integrity and Student Code of Conduct

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](#) provides students and faculty with information on plagiarism and other forms of academic dishonesty and has resources to help students succeed honestly. Read [the full text of Dalhousie's Policy on Intellectual Honesty and Faculty Discipline Procedures](#).

Academic Integrity Violations in BIOL 1020/21

While you are free to ask questions and consult your peers while working on assignments in BIOL 1020/21, any work you submit must be your own, and must not have been submitted previously in the course (unless explicit permission to submit previous work has been given). In these courses we have reported cases that involved copied labs, plagiarism, self-plagiarism, use of images without attribution, improper data sharing, possession of prohibited items during exams, and cheating on exams. Penalties have ranged from a mark of zero for copied labs to expulsion from the University for cheating on exams.

Student Code of Conduct

Dalhousie University has a [Code of Student 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



Pro Tip: Cheating is Costly (and there's no reason to do it)

If you are ever tempted to cheat on your work for the sake of making a deadline or achieving a higher grade, please just walk away from the assignment. You are far better off accepting the loss of marks than taking the penalty that will apply if you are caught. ***It is simply not worth the risk.***

Your instructors want you to succeed on merit and will bend over backwards to help you do so – talk to us!

Students enrolled in 1000-level courses (including this one) may be invited to complete an online [Academic Integrity Module](#), offered through the [Writing Centre](#). The Academic Integrity Module is a separate "course" on your Brightspace course list.

University Policies and Statements

This course is governed by the academic rules and regulations set forth in the University Calendar and by Senate. (Some of these policies are elaborated upon elsewhere in this syllabus.)

Academic Integrity

At Dalhousie University, we are guided in all of our work by the values of academic integrity: honesty, trust, fairness, responsibility and respect (The Center for Academic Integrity, Duke University, 1999). As a student, you are required to demonstrate these values in all of 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.

Information: https://www.dal.ca/dept/university_secretariat/academic-integrity.html

Accessibility

The Advising and Access Services Centre is Dalhousie's centre of expertise for student accessibility and accommodation. The advising team works with students who request accommodation as a result of a disability, religious obligation, or any barrier related to any other characteristic protected under Human Rights legislation (Canada and Nova Scotia). **Information:** https://www.dal.ca/campus_life/academic-support/accessibility.html

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.

Statement: <http://www.dal.ca/cultureofrespect.html>

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

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

Missed or Late Academic Requirements due to Student Absence

Dalhousie students are asked to take responsibility for their own short-term absences (3 days or fewer) by contacting their instructor by phone or email prior to the academic requirement deadline or scheduled time and by submitting a completed Student Declaration of Absence to their instructor in case of missed or late academic requirements.

Read more: https://www.dal.ca/dept/university_secretariat/policies/academic/missed-or-late-academic-requirements-due-to-student-absence.html

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 (1321 Edward St., elders@dal.ca).

Information: https://www.dal.ca/campus_life/communities/indigenous.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. **Code:** https://www.dal.ca/dept/university_secretariat/policies/student-life/code-of-student-conduct.html

University Grading Practices

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

Learning and Support Resources

Academic Supports

Copyright Office: <https://libraries.dal.ca/services/copyright-office.html>
E-Learning website <http://www.dal.ca/dept/elearning.html>
Fair Dealing Guidelines <https://libraries.dal.ca/services/copyright-office/fair-dealing.html>
Library: <https://libraries.dal.ca/>
Studying for Success: https://www.dal.ca/campus_life/academic-support/study-skills-and-tutoring.html
Writing Centre: https://www.dal.ca/campus_life/academic-support/writing-and-study-skills.html

Advising

Aboriginal Student Centre: https://www.dal.ca/campus_life/communities/indigenous.html
Biology Advising: biology.advising@dal.ca
Black Advising Centre: https://www.dal.ca/campus_life/communities/black-student-advising.html
International Centre: https://www.dal.ca/campus_life/international-centre/current-students.html
General Advising, Halifax: https://www.dal.ca/campus_life/academic-support/advising.html
General Advising, Truro: <https://www.dal.ca/about-dal/agricultural-campus/student-success-centre/academic-support.html>
Science Program Advisors: <https://www.dal.ca/faculty/science/current-students/academic-advising.html>

Other Supports and Services

Ombudsperson: https://www.dal.ca/campus_life/safety-respect/student-rights-and-responsibilities/where-to-get-help/ombudsperson.html
Student Advocacy: dsu.ca/dsas
Student Health and Wellness: https://www.dal.ca/campus_life/health-and-wellness.html

Safety

Biosafety: <https://www.dal.ca/dept/safety/programs-services/biosafety.html>
Chemical Safety: <https://www.dal.ca/dept/safety/programs-services/chemical-safety.html>
Radiation Safety: <https://www.dal.ca/dept/safety/programs-services/radiation-safety.html>
Scent-Free Program: <https://www.dal.ca/dept/safety/programs-services/occupational-safety/scent-free.html>

