

**Faculty of Science Course Syllabus**  
**Department of Biology**  
*Biol 2004 (Online)*  
*Diversity of Microorganisms and Plants*  
*Winter 2021*

**Instructor(s):**

Note: We are working from home but can be reached by email, or through weekly office hours. You can access the office hours through the link on the main course page. Office hours are structured as drop-in sessions where you can come and ask questions. If you cannot make these sessions please reach out to Alastair Simpson or Lara Gibson to arrange an appointment at a mutually convenient time. All quoted times are Atlantic (i.e. Halifax) Time.

**Alastair Simpson** (Microorganisms Lectures) Alastair.Simpson@Dal.Ca

Office hours:

January 7<sup>th</sup>- February 25<sup>th</sup>, Tues & Thurs 2:30-3:30, link on the main course page,  
Or by appointment

**Lara Gibson** (Lab Instructor, and Plant Lectures) ldgibson@dal.ca

Office hours:

Until Thursday February 25<sup>th</sup>, by appointment  
February 25<sup>th</sup> – April 6<sup>th</sup>: Tues & Thurs 2:30-3:30, link on main course page,  
Or by appointment

**Course Description:** Introduces the main domains of plant, fungal and microbial life, based on modern phylogenetic taxonomy. Examines the diversity, structure, physiology and ecology of non – animal life forms. Reviews the origins of the main lineages of living things - Archaea, Eubacteria and Eukaryota, as well as the main groups of eukaryotes

**Course Prerequisites:** A grade of C+ or higher in BIOL 1010.03 or (BIOL 1020.03, or BIOA 1002.03 or BIOL 1030.03) and BIOL 1011.03 or (BIOL 1021.03, BIOA 1003.03, or BIOL 1031.03); or SCIE 1505.18.

### Course Structure:

The W2021 class will be delivered as **synchronous lectures** and asynchronous labs on brightspace. The laboratory material will be delivered through video and PDF documents.

Lectures: Tuesday & Thursdays 1:05- 2:25. To access the lectures click on the link on the main course page. The links are named Tuesday Lectures or Thursday Lectures. The links will lead you to a brightspace collaborate session.

- The lectures will be recorded and available, after the live lectures. It may take us up to 72 hours to post the captioned lectures.
- PowerPoint files of the lectures will be posted before the scheduled lecture

Attendance at the synchronous lectures is recommended. If you miss a synchronous session due to time zone issues, technological malfunction or other circumstances beyond your control, you will be able to view the recorded lecture.

Office hours will take place directly after lecture. To access the office hours, use the link on the main course page. The links will be names Tuesday Office Hours, or Thursday Office Hours. The links will lead you to a brightspace collaborate session. These are opportunities for you to ask questions and ensure that you have a correct understanding of the material.

Laboratories: Lab material will be posted after lecture on Tuesdays.

Assessment: Quizzes will be available on Monday's for 24 hours and will be based on the previous week's material.

All assignments based on the previous week's material will be due on Monday's by 11:59pm.

Minimum Technological Requirements: Dalhousie's Guidelines for the Minimum Technological Requirements for Online Learning can be found at [this link](#).

### Course Materials

Required:

1. Slonczewski et al. 2020. Microbiology An Evolving Science. 5<sup>th</sup> edition. W.W. Norton & Company. Available as an ebook through the bookstore.
2. Evert & Eichhorn. 2013. Raven Biology of Plants. Custom Edition. W.H. Freeman and Company. Available as an ebook through the bookstore.
3. Supplementary course notes: There are supplementary course notes for parts of the microorganisms section. These will be made available to you on brightspace.

<b>January</b>						
<b>Sunday</b>	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>	<b>Saturday</b>
3	4	5	6	7 Introduction to Microorganism: The prokaryotic cell	8	9
10	11	12 The prokaryotic cell (Con't) Lab: Lab Safety, Microscope Use & Techniques to Study Microorganisms	13	14 Metabolic diversity in prokaryotes	15	16
17	18 Micro Quiz 1 (2%)	19 Bacterial Diversity 1 Lab: Bacterial Stains & Fungi	20	21 Bacterial Diversity 2	22	23
24	25 Micro Quiz 2 (2%)	26 Bacterial Diversity 3 Lab: Bacterial Unknowns	27	28 Archaea	29	30

<b>February</b>						
<b>Sunday</b>	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>	<b>Saturday</b>
31	1 Micro Quiz 3 (2%) Bacterial Unknowns due (2%)	2 Introduction to microbial eukaryotes (cells and evolution) Lab: Bacteriophage	3	4 Microbial Eukaryotes diversity 1: mostly microalgae	5	6
7	8 Micro Quiz 4 (2%) Bacteriophage Due (2%)	9 Microbial Eukaryotes diversity 2: Mostly protozoa Lab: Protists, Cyanobacteria, & Algae	10	11 Fungi	12	13
14	15	16 <b>Study</b>	17	18 <b>Break</b>	19	20
21	22 Micro Quiz 5 (2%) Fungi report due (5%) Protists assignment (3%)	23 Macroalgae	24	25 Introduction to Plants	26	27

<b>MARCH</b>						
<b>Sunday</b>	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>	<b>Saturday</b>
<b>28</b>	<b>1</b> <b>Microorganism Test</b> 5-7 pm (28%)	<b>2</b> How Plants work & Where are they from? Lab: Introduction to Plants & Bryophytes	<b>3</b>	<b>4</b> Bryophytes	<b>5</b>	<b>6</b>
<b>7</b>	<b>8</b> Plant Quiz 1 (2%)	<b>9</b> Seedless Vascular Plants (i) Lab: Seedless Vascular Plants	<b>10</b>	<b>11</b> Seedless Vascular Plants (ii)	<b>12</b>	<b>13</b>
<b>14</b>	<b>15</b> Bryophyte Drawing (1%) Plant Quiz 2 (2%)	<b>16</b> Gymnosperm (i) Lab: Gymnosperms	<b>17</b>	<b>18</b> Gymnosperms (ii)	<b>19</b>	<b>20</b>
<b>21</b>	<b>22</b> Plant Quiz 3 (2%)	<b>23</b> Angiosperm (i) Lab: Angiosperms	<b>24</b>	<b>25</b> Angiosperms (ii)	<b>26</b>	<b>27</b>
<b>28</b>	<b>29</b> Tree ID Quiz (2%)	<b>30</b> Angiosperms (iii) Lab: Plants in the News	<b>31</b>	<b>April 1</b> How Plants Work	<b>2</b>	<b>3</b>

<b>APRIL</b>						
<b>Sunday</b>	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>	<b>Saturday</b>
<b>4</b>	<b>5</b> Plant Quiz 4 (2%) Plants in the News (2%)	<b>6</b> Plant Overview	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>
Exam Period Apr 10- 23	Final Plant exam, 28% from lecture, 9% from lab					

Table 1: Course schedule for Winter term 2021. Please note, the Microorganism test will be held outside of class time on Monday March 1<sup>st</sup>, from 5-7 pm.

Lecture topics in **Bold**. Lecture topics are tentative and could change.

<b>Week</b>	<b>Date</b>	<b>Topic</b>
1	Jan. 7	Thursday Lecture: <b>Introduction to microorganisms: The prokaryote cell</b>
2	Jan. 11 Jan. 12 Jan. 14	Tuesday Lecture: <b>The prokaryote cell continued</b> Lab: Lab Safety, Microscope Use, & Techniques to study Microorganisms – transfers, streak plates, & lawn plates. Thursday Lecture: <b>Metabolic diversity in prokaryotes</b>
3	Jan. 18 Jan. 19 Jan. 21	Microorganisms Quiz 1 (2%) Tuesday Lecture: <b>Bacterial diversity 1</b> Lab: Bacterial Stains & Fungi Thursday Lecture: <b>Bacterial diversity 2</b>
4	Jan. 25 Jan. 26 Jan. 28	Microorganism Quiz 2 (2%) Tuesday Lecture: <b>Bacterial diversity 3</b> Lab: Bacterial Unknowns Thursday Lecture: <b>Archaea</b>
5	Feb. 1 Feb. 2 Feb. 4	Microorganism Quiz 3 (2%) Bacterial Unknowns Assignment Due (2%) Tuesday Lecture: <b>Introduction to microbial eukaryotes (cells and evolution)</b> Lab: Bacteriophage Thursday Lecture: <b>Microbial eukaryotes diversity 1: Mostly microalgae</b>
6	Feb. 8 Feb. 9 Feb. 11	Microorganism Quiz 4 (2%) Bacteriophage Assignment (2%) Tuesday Lecture: <b>Microbial eukaryotes diversity 2: Mostly protozoa</b> Lab: Protists, Cyanobacteria, & Algae Thursday Lecture <b>Fungi</b>
	Feb. 16 Feb. 18	<b>Study Break: No Class</b> <b>Study Break: No Class</b>
7	Feb. 22 Feb. 23 Feb. 25	Microorganism Quiz 5 due (2%) Fungi Report Due (5%), Protists Assignment (3%) Tuesday Lecture: <b>Macroalgae</b> Thursday Lecture: <b>Introduction to Plants</b>

Table 1 (Con't): Class Schedule

8	March 1 March 2 March 4	<b>** Microorganism Test**</b> Outside of class time: 5:00-7:00, (28%) Tuesday Lecture: <b>How do Plants Work &amp; Where are they From?</b> Lab: Introduction to Plants & Bryophytes Thursday Lecture: <b>Bryophytes</b>
9	March 8 March 9 March 11	Plant Quiz 1 (2%) Tuesday Lecture: <b>Seedless Vascular Plants (i)</b> Lab: Seedless Vascular Plants Thursday Lecture: <b>Seedless Vascular Plants (ii)</b>
10	March 15 March 16 March 18	Plant Quiz 2 (2%) Bryophyte Drawing (1%) Tuesday Lecture: <b>Gymnosperms (i)</b> Lab: Gymnosperms Thursday Lecture: <b>Gymnosperms (ii)</b>
11	March 22 March 23 March 25	Plant Quiz 3 (2%); Tuesday Lecture: <b>Angiosperms (i)</b> Lab: Angiosperms Thursday Lecture: <b>Angiosperm (ii)</b>
12	March 29 March 30 April 1	Tree ID quiz (2%) Tuesday Lecture: <b>Angiosperm (iii)</b> Lab: Plants in the News Thursday Lecture: <b>How Plants Work</b>
13	April 5 April 6	Angiosperm Quiz (2%) Plants in the News Assignment (2%) Tuesday Lecture: <b>Overview</b>
	Exam Period	Combined Lecture/ Lab exam. (37%)

**WEB SITES:** The course maintains a brightspace page.

You can access this from the main Dalhousie page by clicking on the brightspace link on the upper right page banner. Once you log in you should be able to see links for any of your classes that have brightspace pages.

The class maintains a class twitter feed @DalBiodiversity. You are not obliged to sign up to twitter or follow this feed. However this feed is for you if you want articles on biodiversity, animals, plants, and the occasional picture. As a general rule we will not follow student accounts (we're sure there are things you want to tell your friends and not us).

The Dalhousie University Science Librarian, Michelle Paon, has put together a subject guide for Second Year Biology. On this page you will find links to the key databases, relevant books, writing guides, and other useful research tools. You can find the [subject guide here](#), and as a link on the OWL page.

### **COURSE ASSESSMENT:**

There are both lecture and lab assessments in this class.

56% of your grade results from two lecture tests, one which covers the Microorganism material (March 1<sup>st</sup> 5:00- 7:00 pm) and one which covers the Plant material (TBA: Scheduled by the Registrar during the regular exam period).

All course assessments, weights and due dates are presented in Table 2, on the following page.

Table 2: Assessment component, value and due dates.

<b>Evaluation Component</b>	<b>Weight (% of Final Grade)</b>	<b>Due Date</b>
Lecture Test 1 Based on Microorganism material	28	March 1 <sup>st</sup> , 5:00- 7:00 pm
Lecture Test 2 Based on Plant material	28	TBA: Scheduled by Registrar in exam period. April 8 <sup>th</sup> -24 <sup>th</sup> .
Microorganism Quizzes	2/ quiz  <b>Total of 10 marks</b>	January 18 <sup>th</sup> January 25 <sup>th</sup> February 1 <sup>st</sup> February 8 <sup>th</sup> February 22 <sup>nd</sup>
Bacterial Unknowns	2	February 1 <sup>st</sup>
Bacteriophage	2	February 8 <sup>th</sup>
Fungi Report	5	February 22 <sup>nd</sup>
Protists Assignment	3	February 22 <sup>nd</sup>
Plant Quiz	2/ quiz  <b>Total of 10 marks</b>	Plant Quiz 1: March 2 <sup>nd</sup> Plant Quiz 2: March 15 <sup>th</sup> Plant Quiz 3: March 22 <sup>nd</sup> Tree ID: March 29 <sup>th</sup> Plant Quiz 4: April 5 <sup>th</sup>
Bryophyte Drawing	1	March 15 <sup>th</sup>
Plants in the News	2	April 5 <sup>th</sup>
Plant Lab Exam	9	Scheduled with Plant Lecture Test during the exam period by the registrar's office

### Quiz Structure:

Each of the weekly quizzes, with the exception of the Tree ID Quiz, will be as follows:

- Consist of 10 (ten) questions. There will be 3-4 lecture questions and 6-7 lab questions per quiz. Lecture questions will only cover the material in the previous week's lectures; with the exception of the quiz on January 18<sup>th</sup>, which will cover the first three (3) lectures.
- You will only be able to move forward in the quiz
- You will be given 15 minutes to complete the quiz.
- You will be able to review the questions you got wrong, on Wednesday's from 12am to 11:59pm.

The goal with these quizzes is to encourage you to review the new course material on a weekly basis, and for you to see what material you understand and what material you should review prior to the final.



**Conversion of numerical grades to Final Letter Grades follows the Dalhousie Common Grade Scale**

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)		

The common grade scale defines achievement of each grade level as follows:

A- to A+: “Considerable evidence of original thinking; demonstrated outstanding capacity to analyze and synthesize; outstanding grasp of subject matter; evidence of extensive knowledge base.”

B- to B+: “Evidence of grasp of subject matter, some evidence of critical capacity and analytical ability; reasonable understanding of relevant issues; evidence of familiarity with the literature”

C- to C+: “Evidence of some understanding of the subject matter, ability to develop solutions to simple problems; benefitting from his/ her university experience”

WOW Factor: For each assignment in this course, submitting work which fulfills the requirements of the assignment will earn you a good grade. However, maximum points will only be awarded for exceptional work. Exceptional work can result from presentation, a creative approach, expansion of the content, or linkage of the content to other classes. In short there is no single definable factor that will make your work exceptional, instead it will reflect the criteria outlined in the A- to A+ definition.

When thinking about the ‘WOW factor’, consider the community you are training to be a part of, ie. a biological scientist. This community values characteristics such as building on the work of others, good experimental design, creativity, clear data presentation and analysis, excellent descriptions, thoughtful observations, and a wide variety of other skills. How have you emulated these skills in your work?

Note: As the Dalhousie common grade scale specifies grades as a whole number, we will consider the first decimal place when assigning grades and use standard rounding rules.

## Course Policies

**1) Absences:** This class does not accept Student Declaration of Absence forms.

It is possible that at some point during the term you will have to miss some instructional time due to illness or other exceptional circumstances. It is your responsibility to contact us as soon as you know what you will be missing so we can make the appropriate arrangements. This may include being excused from the assignment or having you complete the work to a new deadline.

**2) Late Assignments:** Please consult Table 2 for the due dates for each assignment. Any assignments turned in after the due date/ time will be penalized at 10% per day.

**3) Missed Final (for either the microorganism test or the plant test)**

If you miss the final exam, for either the microorganism section or for the plant section you will be required to complete a make up exam, at a date to be determined. There will be only one sitting of the make up exam.

**4) Referencing & Photo Credits:** In your work, ANY and ALL statements that were not empirically derived for yourself as part of an experiment or study, for that assignment, must be credited to a source. When crediting other people's work please use the Name-Date system of the Council for Science Editors (CSE) style. There is a link to the style guide on brightspace.

All sources should be collected into a list at the end of your work and presented in CSE style. Your source list should be in alphabetical order.

A skill you should be cultivating throughout your academic career is to determine the credibility of your sources. The peer review process, where the methodology, results and broader context of an experiment are written up and submitted to other researchers in the same field of study are the most credible forms published work. Books and documentaries often draw their evidence from the peer-reviewed literature and as such would be considered credible sources. New articles may or may not be based on peer-reviewed sources and so have varying degrees of credibility. Web sources can be very confusing, some are based on the peer reviewed literature, some are based on people's unsupported opinion or current working theories.

There is a credible checklist flowchart to help you determine the credibility of web sources. A PDF copy of the flowchart document is located brightspace, under the lab folder. The flow chart was developed based on the criteria outlined by Dalhousie University Librarians.

Please use the flowchart in conjunction with the following table (This will also be posted on OWL as a word document). As you move through the flowchart add "+" or "-" to your table. As you increase the number of "-" signs the credibility of your site decreases. After you have gone through all criteria you can determine if you site is credible, less credible or not credible.

**Referencing & Photo Credits (Con't):**

**Table 3** Summary of online source credibility

Web Site	1. Authority	2. Purpose/ Objectivity	3. Currency	4. Accuracy	Overall
1.					
2.					

If you are using websites as a references, please include the table as an appendix to your report.

Photos: Not all photos presented on the internet are available for use. Some were developed for specific companies or sites and require permission or payments for use. However, if you look around you can often find photos that are published with creative commons or educational use licenses. A good source for useable photos is [http://commons.wikimedia.org/wiki/Main\\_Page](http://commons.wikimedia.org/wiki/Main_Page)

If it unclear under which type of license the photo was posted, you must contact the creator of work to ask permission to use it for your project.

When you present a photo you should place the name of the photographer and the license under which the photo is being used beside the photo. The full reference for where the photo was taken from should be included in your reference list.

For example if you wanted to use this photo of *Marchantia polymorpha*, you would place the name of the photographer and the licence you are using the photo under either underneath or beside the photo. Then in your reference list you would include the full web reference.

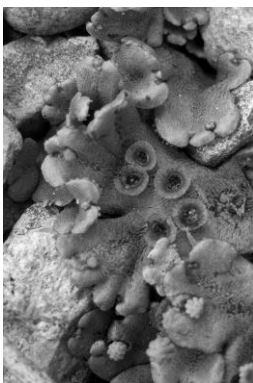


Figure 2: *Marchantia polymorpha*. Photo taken by Ryan Hodnett CC BY-SA 4.0

If you use photos/ video in your work, you must 1) ensure the photo is licensed under a creative commons, public domain, or educational use license, and 2) on or near the photo indicate who the photographer is and the type of license it is used under.

### **Course Objectives and Learning Outcomes**

The biology department has created a curriculum map of the courses it offers. If you are interested in seeing the map, you can find it at: <https://biology.academics.cs.dal.ca/>

On that page if you click on the courses link, you will come to a list of all the courses offered by the biology department. Clicking on any of the individual classes, leads to a class page, with a map for the class, illustrating what classes are needed to take the class and what subsequent classes require the class of interest.

Below the map, you'll find a list of assumed learning outcomes, these are the skills and topics a student is expected to know at the start of the class. Following this list is a second list of student learning outcomes, these are the topics and skills a student is expected to learn during the class of interest.

The assumed learning outcomes, the list of skills and topics we expect you to be familiar with at the start of Biology 2004, include:

- Compare and contrast the fundamental features of mitosis and meiosis with emphasis on the movement of homologous chromosomes during these cellular reproductive processes.
- Create scientific questions, propose a written hypothesis as a tentative answer to that question and generate observable predictions consistent with that hypothesis in the context of a particular experiment.
- Demonstrate an understanding of molecular phylogenetics, including the concept of tracing the evolution history of genes (e.g. gene duplication, horizontal gene transfer).
- Describe the basic structure and function of organelles.
- Describe the components of photosynthesis and the main steps and products of each component.
- Describe the most basic similarities and differences between Bacteria, Archaea and Eukaryotes, and the evolutionary relationships between 'protists' and animals, plants and fungi.
- Describe the phenomenon of (primary) endosymbiosis and its role in the origins of mitochondria and plastids (chloroplasts).
- Know basic features of the major groups of fungi, including structure, growth and life cycles
- Know the life cycles of major plant groups.
- Observe diversity of form, as well as key shared structures, across a range of cell and organism types.
- Recall basic chemical concepts: bonding, formulas, concentration, the principle of balancing chemical equations.
- Recall basic mathematical concepts and techniques: logarithms, exponentials, solving simple algebraic equations, slopes and intercepts, graphing and interpreting simple graphs
- Understand the features that allowed transition from aquatic to terrestrial environments.
- Use and know when to make use of common biological research tools such as compound microscopes, gel electrophoresis units, pipettors and micropipettors, bioinformatics tools, and enzyme assays.

- Describe the basic structure and function of biological membranes.
- Describe the different macromolecules.
- Describe the major plant cell, tissue and organ types.
- Recall how cells produce and utilize ATP.

The student learning outcomes, the list of skills and topics we expect you to learn during Biology 2004, include:

- Apply standard microbiological techniques (streak plates, bacteriophage plaque assays)
- Arrange plant specimens into the correct phyla
- Assess the credibility of source material
- Be able to use a dichotomous key to identify gymnosperms
- Collect and prepare a fungal sample for identification
- Compare reproductive structures, dominance, spore type, and vascular tissue between plant phyla (including ovary position and raceme type)
- Describe the diversity of some major groups of prokaryotes: focus on Proteobacteria; Gram-positives; Cyanobacteria.
- Describe the four major plant groups
- Describe the microbial food web (in the ocean): dominance and role of Bacteria; bacterivory and microbial predation; mixotrophy; viruses
- Explain the differences between the three major groups of macroalgae (reds, greens, browns), triphasic life cycle of red algae and complex thallus organization in some brown algae
- Explain the key features of the major plant lineages (Non-vascular land plants, seedless vascular plants, gymnosperms, angiosperms, monocotyledons, eudicotyledons)
- Familiarity with diagnostic bacterial identification (catalase test, differential media, antibiotic susceptibility)
- Identify algal groups based on pigmentation
- Learn and apply aseptic techniques to culture work and sterile transfers
- Prepare a formal lab report on a select topic
- Construct scientific drawings with scale bars
- Contrast generational dominance, spore type, dependence on water, independence from water, and reproduction between the four major plant lineages.
- Describe the Archaea: Shared features with Eukaryotes; Thermophily and Methanogenesis.
- Describe the bacterial species 'concept', phylogenetic tree of prokaryotes (including the role of gene transfer)
- Describe Fungal diversity: nature of hyphae; basic differences between zygomycotes, ascomycotes, and basidiomycotes; Mycorrhizae
- Describe the Nitrogen cycle from a microbial perspective (examples of anaerobic respiration, lithotrophy, nitrogen fixation)
- Describe the plastid diversity in eukaryotes, including primary vs secondary endosymbiosis
- Determine a testable question and alternate hypotheses
- Explain the importance of plants to humans and other organisms (oxygen production, crops, primary producers)
- Prepare slides for use with a compound microscope (wet mounts, Gram stains, bacterial spore stains, and fungal hyphae culture slides)

- Understand structures and functions of major components of, and replication of, prokaryotic cells
- Use a compound microscope with Kohler illumination, including immersion oil
  
- Contrast plant life cycles between phyla (Hepatophyta, Anthoceroophyta, Bryophyta, Lycopodiophyta, Pteridophyta, Cycadophyta, Ginkgophyta, Coniferophyta, Genetophyta, Anthophyta)
- Contrast the benefits and challenges of moving onto land
- Contrast the tissue arrangement of roots and stems between monocots and dicots
- Describe the different types of pollinators, seed dispersal methods, inflorescences, and flowers.
- Describe the importance and diversity of vascular plants and success of terrestrial plant life
- Describe the primary plant body (Root, Shoots and flowers)
- Describe the protist cells and some major groups of Protists; focus on Haptophytes, Diatoms, Apicomplexan parasites, Ciliates, Cellular slime molds (including life/sexual cycles for the latter four)
- Differentiate between the different classifications of fruits
- Differentiate between the different germination types
- Explain the environmental factors which limit bryophyte and seedless vascular plant distribution
- Give examples of Fermentation, Anaerobic respiration, Lithotrophy, and Anoxygenic photosynthesis (vs oxygenic photosynthesis)
- Relate evolutionary adaptations to plant development and reproduction

### **Dalhousie Resources for you to be Aware Of:**

Through the **Dalhousie Libraries** you can book a study space on campus or ask for an extended laptop loan.

[Details can be found at this link](#). Or from Dal.ca, click on Libraries along the top menu bar, then on click on the green banner “Services from Dal Libraries during COVID-19” with the green pictures.

There is a lot going on in the world and as we settle into winter you may need some extra Mental Health Support. This is available through **Student Health and Wellness** you can book appointments with counsellors, peer support groups or a social worker.

[Details can be found at this link](#). Or from Dal.ca click on Campus Life, and then on the right side menu “Health and Wellness”.

**Academic and Advising Supports** can be found through the links on the next page.

## University Policies and Statements

**This course is governed by the academic rules and regulations set forth in the University Calendar and by Senate**

### **Missed or Late Academic Requirements due to Student Absence**

As per Senate decision instructors may not require medical notes of students who must miss an academic requirement, including the final exam, for courses offered during fall or winter 2020-21 (until April 30, 2021). Information on regular policy, including the use of the Student Declaration of Absence can be found here: [https://www.dal.ca/dept/university\\_secretariat/policies/academic/missed-or-late-academic-requirements-due-to-student-absence.html](https://www.dal.ca/dept/university_secretariat/policies/academic/missed-or-late-academic-requirements-due-to-student-absence.html).

### **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](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](https://www.dal.ca/campus_life/academic-support/accessibility.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](https://www.dal.ca/dept/university_secretariat/policies/student-life/code-of-student-conduct.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>

### **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](mailto:elders@dal.ca)).

**Information:** [https://www.dal.ca/campus\\_life/communities/indigenous.html](https://www.dal.ca/campus_life/communities/indigenous.html)

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

[https://www.dal.ca/academics/important\\_dates.html](https://www.dal.ca/academics/important_dates.html)

### **University Grading Practices**

[https://www.dal.ca/dept/university\\_secretariat/policies/academic/grading-practices-policy.html](https://www.dal.ca/dept/university_secretariat/policies/academic/grading-practices-policy.html)

## Student Resources and Support

### Advising

**General Advising** [https://www.dal.ca/campus\\_life/academic-support/advising.html](https://www.dal.ca/campus_life/academic-support/advising.html)

**Science Program Advisors:** <https://www.dal.ca/faculty/science/current-students/academic-advising.html>

**Indigenous Student Centre:** [https://www.dal.ca/campus\\_life/communities/indigenous.html](https://www.dal.ca/campus_life/communities/indigenous.html)

**Black Students Advising Centre:** [https://www.dal.ca/campus\\_life/communities/black-student-advising.html](https://www.dal.ca/campus_life/communities/black-student-advising.html)

**International Centre:** [https://www.dal.ca/campus\\_life/international-centre/current-students.html](https://www.dal.ca/campus_life/international-centre/current-students.html)

### Academic supports

**Library:** <https://libraries.dal.ca/>

**Writing Centre:** [https://www.dal.ca/campus\\_life/academic-support/writing-and-study-skills.html](https://www.dal.ca/campus_life/academic-support/writing-and-study-skills.html)

**Studying for Success:** [https://www.dal.ca/campus\\_life/academic-support/study-skills-and-tutoring.html](https://www.dal.ca/campus_life/academic-support/study-skills-and-tutoring.html)

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

**Fair Dealing Guidelines** <https://libraries.dal.ca/services/copyright-office/fair-dealing.html>

### Other supports and services

**Student Health & Wellness Centre:** [https://www.dal.ca/campus\\_life/health-and-wellness/services-support/student-health-and-wellness.html](https://www.dal.ca/campus_life/health-and-wellness/services-support/student-health-and-wellness.html)

**Student Advocacy:** <https://dsu.ca/dsas>

**Ombudsperson:** [https://www.dal.ca/campus\\_life/safety-respect/student-rights-and-responsibilities/where-to-get-help/ombudsperson.html](https://www.dal.ca/campus_life/safety-respect/student-rights-and-responsibilities/where-to-get-help/ombudsperson.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>