

# WELCOME TO 'CHEZ GENETICS'

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## FRONT OF HOUSE

Dr. Andrew Schofield: *Please contact for assistance & suggestions for improvement*

## FEATURED CHEFS

Dr. Joe Bielawski ~ *Specialty*: Mendelian genetics, problem solving, and use of genetics in society

Dr. Julie LaRoche ~ *Specialty*: Molecular biology, control of gene expression and applications

Dr. Paul Bentzen ~ *Specialty*: Chromosomes, mutations, biotechnology, gene editing and sequencing

## APPETIZER

Why are you here? Why genetics?

What are the options? (Syllabus)

## MAINS

Unit 1- How are traits transmitted from parents to offspring, really? Why do we all not look identical?  
(*Problem-solving skills through Achieve and labs*)

Unit 2- How are traits encoded, in what form, and how does a cell know to express them?  
Why aren't all the cells in the body with identical DNA sequences the same?  
(*Critical thinking skills through Achieve, researching and writing like a scientist in lab*)

Unit 3- How do we know about genes? How do genes change spontaneously, and how do humans create changes? (*Authentic research making a difference, applications of genetic theory*)

## DESSERTS

Interact with diverse group of genetic researchers!

Explore connections between genetics and your broader interests in science and society

Integrate genetics into your unique vision for yourself in science, or in a science career

## BEVERAGES

Building a cooperative and diverse learning community

Learning together through peer instruction

No deductions for trying and getting it wrong the first time

**Faculty of Science Course Syllabus (Section A)** (Updated AUG 26, 2023)**Department of Biology****BIOL 2030 – Genetics and Molecular Biology****SUMMER 2025**

*Dalhousie University acknowledges that we are in Mi'kma'ki, the ancestral and unceded territory of the Mi'kmaq People and pays respect to the Indigenous knowledges held by the Mi'kmaq People, and to the wisdom of their Elders past and present. The Mi'kmaq People signed Peace and Friendship Treaties with the Crown, and section 35 of the Constitution Act, 1982 recognizes and affirms Aboriginal and Treaty rights. We are all Treaty people.*

*Dalhousie University also acknowledges the histories, contributions, and legacies of African Nova Scotians, who have been here for over 400 years.*

<b>Instructor:</b>	<b>E-mail</b>	<b>LSC Office</b>	<b>Student Hours (in-person)</b>
Dr. Andrew Schofield (he/him)	a.schofield@dal.ca	3075	Tue, 1:00-2:00 PM

**A Thumbnail Sketch of the Course ... the rest of the Syllabus has the details ;-)**

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**Key Resource:** Brightspace should be your #1 source for help! You can find lecture slides, lecture recordings and all the lab- and tutorial-related materials on the site, including the [Lecture Schedule](#), the [Lab Schedule](#), and the [Tutorial Sessions](#) pages (these links won't be live until Brightspace is opened).

**Lectures:** Presented as asynchronous (pre-recorded) lecture videos, available through Brightspace. Each week usually covers two modules and roughly 4.5 hours of videos. See Lecture Schedule.

**Labs:** Mandatory, in-person, three-hour lab sessions every Wed or Thu (depending on your section) throughout the term in LSC B6009. Come prepared for lab by completing pre-lab readings, videos, and quizzes. Different lab assignments are due at the beginning of lab, during the lab, or after the lab – please check the Lab Schedule.

**Tutorials:** Mandatory, in-person, two-hour tutorial sessions every Wed or Thu throughout the term in LSC B2098 (the first year biology lab). Weekly Achieve Tutorial Assignments will first open for you during your tutorial time and they cover the content introduced that week, so it will be important to watch those lecture videos before your tutorial session. Achieve Assignments are due three days later, every Saturday or Sunday (depending on your section). See the Schedule on the Tutorial Sessions page for details.

**In-Person Assessments:** Three key assessments are in-person ONLY: the two Lecture Tests and the Final Exam. These only cover the content of one unit, and they are not cumulative. See the Course Assessment Breakdown table in this Syllabus for details.

**How Will I Know That I'm Keeping on Track?** Try to watch the appropriate lecture videos before each tutorial session. Test your knowledge of the content with weekly Achieve Tutorial Assignments (for marks) and weekly Lecture Practice Quizzes (not for marks), see the Lecture Schedule. Weekly labs have

tasks before, during, and after the lab — so be careful to check the Lab Schedule for dates. At the completion of each Unit there will be an in-person Test.

## Student Resources

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### Technology

BIOL 2030 will use Dalhousie-supported programs, mainly **Brightspace** and Microsoft **Teams**, and share files through Teams and Microsoft 365. All students have [free access](#) to Microsoft Office products and our assignment templates are all **MS Word**. A laptop or device with Teams, Word, Outlook and Chrome installed will give you the best class experience! Bring them to **every** class and lab if possible.

**What if I feel sick?** You have one **SDA** to use for any **missed academic requirement throughout term** (for a three day extension or opportunity to makeup) so please file the SDA using the form and link on our homepage in Brightspace.

**How will I be able to answer questions?** Helpful resources are plentiful- the textbook, our recorded lectures, animations, self-quizzes, and bright practice questions & solutions are all excellent sources of trusted information. You can earn credit by participating in tutorials, completing the Achieve homework every week and completing the laboratory exercises within a reasonable time. Problem-solving takes a lot of practice, so we provide you with problems from the text, Brightspace, and Achieve that allow you to struggle with important concepts and practice solving them while earning points for trying. This is called *formative learning*.

## Communication

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### Office hours

I have office hours every Tuesday from 1:00-2:00 PM, you can just drop in to my office. Otherwise, please email me. As requested, we will schedule either an in-person or virtual meeting.

**Questions related to content?** Post in the Discussion forum '[Any questions?](#)' and your post will be answered in 24 hours. If you know the answer, please help out a classmate!

**Personal questions or problems affecting your success in this course?** I'm here to help you succeed in the class. I know you can improve and do well in genetics! You can always contact me by email. Responses may take a day or so, and emails are not answered outside working hours – 9-5 Monday to Friday.

### Autonomy and independent learning

One of the most important outcomes of a university education and a skill that you can use forever is your ability to learn independently. We will guide you and give you opportunities and choice over what you do to learn as much as we can, but you are ultimately responsible for your learning in this, and any course. **We believe that you have the capacity to be successful at Genetics!** Please reach out to us if you're struggling and we'll do what we can to help.

## Course Description

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### From the Calendar

The power and prominence of modern genetics are emphasized through a blend of classical and molecular approaches. Topics include: Mendelian, population and quantitative genetics; chromosome structure and variation; structure and function of nucleic acids; DNA replication, transcription and translation; gene expression; gene mutations; and genetic engineering. Course-based research experience in lab.

### Courses Prerequisites:

A grade of C or higher in BIOL 1010.03 or (BIOL 1020.03, BIOL 1030.03, BIOA 1002.03, SCIE 1507.09). RECOMMENDED: CHEM 1011.03 and CHEM 1012.03

EXCLUSIONS: GENE 2000.03

### Knowledge/skills:

You will draw on these skills you have developed in previous courses:

- Compare and contrast the fundamental characteristics of eukaryotic, prokaryotic, diploid and haploid organisms
- Describe the stages of mitosis and meiosis and the cell cycle.
- Recall the basic concept of heredity, and that genetic information is encoded in DNA.
- Define genotype, phenotype, chromosome, gene, allele, recessive and dominant.
- Contrast the basic differences between DNA and RNA and describe how information flows from DNA to RNA to protein.
- Identify the minimal regulatory elements and how they function in the control of gene expression of inducible operons in prokaryotes.
- Define the principal classes of physical and chemical mutagens, the changes mutation introduces to the amino acid sequence of a polypeptide, and the resulting effect on phenotype.
- Describe the basic methodology of gene cloning and DNA technology/biotechnology, some applications, and their ethical and societal implications.
- Interpret the concepts of evolution as changes in allele frequencies and the Hardy-Weinberg principle. Calculate expected genotype and allele frequencies in simple cases.
- Describe the components of a scientific paper.
- Collect scientific literature using library resources, incorporate information from them into a scientific paper, and properly cite these sources.
- Explain the importance of academic integrity

### Course Objectives/Learning Outcomes

If you've built on those skills though this course you can:

- Defend the importance of genetics to society and the study of biology and explain this to non-specialists.
- Manipulate Mendelian principles of heredity for both autosomal and sex-linked inheritance.



- Apply rules of heredity to the eukaryotic cell cycle. Relate meiotic crossing over and genetic linkage.
- Show how complex genetic systems lead to modifications of the basic principles of Mendelian inheritance.
- Summarize the basic principles of population and quantitative genetics and apply these principles to real biological systems.
- Diagram the structure of DNA, DNA replication, how DNA is transcribed to RNA, and how RNA is translated into proteins.
- Diagram the structure of RNA and how post-transcriptional processing modifies it prior to translation.
- Interpret genetic and protein variability using detailed knowledge of the genetic code and the processes of transcription and translation.
- Compare and contrast the regulation of gene expression in prokaryotic and eukaryotic cells
- Relate chromosome structure, the types of rearrangements that occur, and the consequences of variations in chromosomal number.
- Explain and illustrate the fundamental biochemistry required in the application of modern techniques of molecular biology: (i) gel electrophoresis; (ii) contemporary methods used for determination of DNA sequences, and the key similarities and differences among them; (iii) amplification of DNA via the polymerase chain reaction (PCR); (iv) evaluation of gene expression via quantitative PCR; (v) determination of epigenetic methylation of DNA sequences.
- Classify physical and chemical mutagens, identify chemical mutagens by the Ames test, and predict the effect of different types of mutation on phenotype.
- Describe recombinant DNA technology and different approaches to the genetic modification of multicellular organisms.
- Explain approaches to the study of genetic variation at the molecular level and some of the key applications of these approaches.
- Manipulate the theories and topics covered in lecture and readings by solving problems in lecture, tutorials and labs.
- Develop a testable scientific hypothesis and design a research approach with appropriate controls.
- Apply techniques used in genetic and molecular biology laboratories.
- Generate, organize, interpret, and critique data collected from experiments in the laboratory and communicate results by an original and individually written scientific paper.
- Summarize, cite and reference scientific literature to avoid plagiarism.

## Course Materials

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### If you'd like to learn well you'll need:

1. **Achieve Access (for grades from the tutorials) and a version of the text**, through the Dal Bookstore:

- Option 1 (a good deal): Achieve access + Pierce, Benjamin A. Genetics: A Conceptual Approach (7th Update edition) 2024. (E-book) ~\$70.00

OR

- Option 2: Pierce, Benjamin A. *Genetics, A Conceptual Approach* (Update 7th ed). 2020. NY: W.H. Freeman (Hardcover) + Achieve access for ~\$140
  - If the cost is a barrier, please contact me at [a.schofield@dal.ca](mailto:a.schofield@dal.ca)
2. **BIOL2030 Course website:** Connect through [my.dal.ca](http://my.dal.ca) (Brightspace). Weekly modules to organize content, recorded lectures, weekly lab and tutorial sessions at your registered time.
  3. **Microsoft Teams:** Install the desktop app early from Office 365 for interacting with your pod members and the genetics Faculty.
  4. **Lab coat:** Can be purchased through the [Dal Bookstore](#) for approx. \$25 or you can borrow one of our used ones during lab.

Recommended:

5. Knisely, Karin. 2017. *A Student Handbook for Writing in Biology*. 5<sup>th</sup> ed. VA: W.H. Freeman. If you don't have a copy, follow the miRNA paper guidelines provided by your lab instructor and the Writing for Biology video series. Individual pages will be posted

## **Class Code of Conduct**

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In this course, because your voice will be heard when we discuss societal issues based on genetics, consider extending this courtesy to everyone in the class. We are all learning and mistakes will be made and understand you can communicate your discomfort or opposition either in class or privately to me outside of class ([a.schofield@dal.ca](mailto:a.schofield@dal.ca)). I would appreciate suggestions on how to make BIOL 2030 more inclusive and diverse. We all have different stories and experiences, and our class is a safe space to share them.

## **Course Assessment**

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**Formative(F):** Designed to give you immediate feedback on what you are learning- no or low marks but important for you to be aware of what you do know and do not know. This is called **Metacognition**. If you've struggled in first year with getting the marks you wanted, now is the time to click on this [Metacognition](#) link and watch (and try!) Dr. Chew's recommendations. I've read many books and articles and his advice is still accurate and one of the best resources I've found for improving success!

**Summative(S):** Designed to assess whether you have mastered all the learning outcomes, or which outcomes you have mastered. More weight for marks, to encourage you to prepare for them by practicing problems and testing yourself before the assessment.

**Both types of assessments are better for your learning if first attempted without looking at notes.**

**Note the different ways we administer assessments**

- Pre-lab quizzes and lecture quizzes (not for marks) are through Brightspace
- Achieve tutorial assignments are through Macmillan Learning's Achieve portal (link in Brightspace)
- Midterms and Final Exam are in-person

### Course Assessment Breakdown

Component	Weight (% of final grade)*	Date
<i>Achieve tutorial assignments (F)</i> <i>(best 9/10)</i>	9	Weekly, start at in-person Tutorial Session and complete by Sat or Sun (3 days after tutorial) at 11:59 pm
<i>Participation (F)</i>	3	Participate in group work in tutorial sessions; attend and ask questions, help others solve tutorial questions. Complete Lecture Practice Quizzes by deadlines.
<i>Midterm 1 (S) Unit 1 Content Only</i>	20	<b>Mon. May 26, 1:00pm – 3:00pm (C236)</b>
<i>Midterm 2 (S) Unit 2 Content Only</i>	20	<b>Mon. June 9, 1:00pm – 2:00pm (C236)</b>
<i>Final Exam (S) Unit 3 Content Only</i>	20	<b>Tues. June 24, 10:00am – 12:00 noon (C240)</b>
<b>IN PERSON</b>		
<b>All are in LSC Common Area</b>		
<i>Lecture Assignment (Individual)</i> Conversation with a TA (S)	6	Between <b>May 26 – June 6</b>
<b>Laboratory Assignments:</b>		
<i>Individual:</i>		
<i>Pre-lab quizzes (F)</i>	2.5	Due by lab start time
<i>Epistasis Report (F)</i>	1.5	Due May 16 or 17 by 12:00 noon
<i>Draft 1 of scientific paper (F)</i>	2	Due May 30 or 31 by 12:00 noon
<i>Draft 2 of scientific paper (F)</i>	2	Due June 11 or 12 at beginning of lab
<i>Final version scientific paper (S)</i>	10	Due June 20 or 21 by 11:59 pm
<i>Group:</i>		
<i>In-lab pod assignments (F)</i>	4	Due by 12 noon the day after your lab session.

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

A+ (90-100) A (85-89) A- (80-84)	<b>Excellent</b>	Considerable evidence of original thinking; demonstrated outstanding capacity to analyze and synthesize; outstanding grasp of subject matter; evidence of extensive knowledge base.
B+ (77-79) B (73-76) B- (70-72)	<b>Good</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+ (65-69) C (60-64) C- (55-59)	<b>Satisfactory</b>	Evidence of some understanding of the subject matter; ability to develop solutions to simple problems; benefitting from his/her university experience.
D (50-54)	<b>Marginal Pass</b>	Evidence of minimally acceptable familiarity with subject matter, critical and analytical skills.
F (<50)	<b>Inadequate</b>	Insufficient evidence of understanding of the subject matter; weakness in critical and analytical skills; limited or irrelevant use of the literature.

## Course Delivery

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**LECTURE FORMAT:** Pre-recorded lecture videos will be the primary way to deliver the content and they are supplemented by videos/animations/exercises in the modules for that week. The Lecture Schedule provides topics, suggested readings, and dates.

**LECTURE ASSIGNMENT:** There is one lecture assignment following Unit 1 worth 6% of your total mark. It is an **individual Conversation with a TA** on a topic that links the lecture material to society. We hope you enjoy the opportunity to create a more informal presentation to demonstrate your application of genetics theory to the world we live in. It will be on a topic you choose and you can potentially explore the answer to one of the big, important genetics questions you have always been intrigued by in the past.

**TUTORIAL FORMAT:** Tutorials are two-hour sessions where a helpful and expert guide facilitates in-person group work. These sessions will help you figure out how to solve difficult questions in the Achieve Tutorial Assignments. The TAs will not lecture, but they will help you discuss tricky concepts, interpretations, or extensions of the ideas you have or need to solve problems. Tutorial attendance is mandatory and you will receive course credit for **participating** (7 weekly tutorial sessions, 10 Achieve Tutorial Assignments worth 9%, participation worth 3%). Tutorials are every Tuesday starting May 7<sup>th</sup> in LSC B2100 (the first year biology lab).

**Brightspace Practice Questions** are embedded in each module. These are good examples of the types of questions found on the midterms, and some of these questions are repeated in the Achieve Tutorial Assignments. After the Assignment is completed, worked solutions of certain Brightspace Practice

Questions are provided. The tutorial TAs understand the questions thoroughly and can help you if you become stuck.

#### TUTORIAL FORMAT (continued):

- You have registered for a tutorial session (check Dal online) and you have the opportunity to work on the tutorial assignments there in groups with your classmates. You will be assigned a group or pod of 6 others to work with in your tutorial.
- The Achieve Tutorial Assignments open at your tutorial time. There is no embedded feedback in the tutorial questions at the beginning, so those are the ones to solve together in tutorial.
- Scrap paper or a notebook will allow you to work out problems.
- The Achieve Tutorial Assignments have half of their questions from the Brightspace Practice Questions in the modules, and half are new Achieve questions on the same topics. There are no deductions for retrying questions or using hints up to 10 tries. If you give up and view the solution, you don't earn points for that question.
- The online Achieve Tutorial Assignment **opens at your tutorial time** and closes **Saturdays (4 days later) at 11:59 pm**.
- There are 10 Achieve Tutorial Assignments total, with your lowest mark dropped.
- **Participation:** The following criteria will be used: 1pt for attending at least 2 times, 2pts for attending at least 4 times, and 3pts for attending at least 6 times and being actively engaged during the tutorials (discussing with classmates, helping others, asking questions, working on problems together).

### IMP

To complete the tutorial assignments and to gain access to the e-textbook you will need to register for Achieve. This should **ONLY** be done through the “**Achieve Tutorial Assignment & textbook link**” on the [Tutorial Questions](#) page of our Brightspace course. **Achieve will assign you a codename to protect your identity and grades.** See the options for access above, under Course Materials. **Tutorials start Tuesday May 7.** The schedule and location of tutorial sessions is listed on the [Tutorial Sessions](#) page in Brightspace.

#### MIDTERM FORMAT:

All midterms/exams will be **in-person**. Consult the **Course Assessment Breakdown** table in this syllabus for specific dates and times. Talk to Dr. Schofield if you are unable to attend for any reason. **Midterm 1** will cover Unit 1, **Midterm 2** will cover Unit 2, and the **Final Exam** will cover Unit 3. *Each one is only on one Unit (they are not cumulative), so the weighting cannot be changed.* These tests are designed to assess you on the learning outcomes in the modules, lecture recordings, and tutorials. You will not be tested on topics you've only learned about in the labs. The midterms consist entirely of questions requiring multiple choice answers and will be time-limited, so you need to completely understand the concepts.

You are expected to uphold **academic integrity** standards and **rely on your knowledge and practice of problem solving**.

Alternate writing times for tests will be offered to students who have another Dalhousie exam or class at the same time or who are ill. Students who have a timing conflict with another class should contact Dr. Schofield at least **three days** prior to the test date to arrange another time. Students who feel ill should see the “Course Policies on Missed ...” policy below.

**MIDTERM VIEWING:** There will be brief viewing sessions after each midterm to look at your test. Watch for Announcements in Brightspace as to the date and times of the review sessions. Contact Dr. Schofield if you have any questions about the tests.

#### LABORATORY FORMAT:

**What are the Laboratory times?** Laboratories are three-hour sessions that allow us to tackle weightier problems, perform some experiments and collect data, and learn approaches to interpret that data. You can confer with your pod of 4 and all contribute to the group in-lab assignments but show your unique and original work in your epistasis report, drafts and final scientific paper which are all individual. Please see the [Lab info](#) in Brightspace for details. (7 weekly labs total, worth 23%). The first labs are Wed or Thu May 7<sup>th</sup> or 8<sup>th</sup> (see Lab Schedule). All labs are in-person in LSC B6009, and attendance is mandatory. Talk to Dr. Schofield if you are unable to attend a lab for any reason.

Labs are busy so you need to come prepared by doing the pre-lab reading, watching the pre-lab video and doing the pre-lab quiz if there is one. Check the Lab Schedule for the complete term schedule. DAL ONLINE shows which lab section you have registered. **ALL Lab content** is on Brightspace in a separate Laboratory Content folder at the top of the Table of Contents.

- Online pre-lab quizzes must be completed up to 5 minutes before lab begins.
- In-lab assignments are due by noon or 12PM AST of the day **after** your lab session.
- Although data is collected together, and group in-lab assignments will be collaborations of your pod, **all written work on your epistasis report, drafts and final scientific paper is individual.**
- Drafts of your scientific paper sections are due at the **start** of the lab session when they will be peer-reviewed by your pod mates. You will then have a few days to make edits based on the suggestions of your peers and submit for TA feedback to the assignment dropbox (check the Lab Schedule for due dates).
- Drafts and the final version of your miRNA paper will be screened **by Urkund** for plagiarism.
- Late lab assignments will receive a 5% deduction for each day late, to a maximum of **5** days late.
- **Unfortunately we can't allow you to switch labs because of space limitations. If you are sick and need to attend a different lab please contact Dr. Schofield.**

#### Course Policies on Missed or Late Academic Requirements

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**Requests for an alternative quiz time due to extenuating circumstances:** If you have another Dalhousie class or exam scheduled at the same time as our Unit midterms or have another type of unavoidable conflict with the test, please should contact Dr. Schofield at least three days prior to the midterm date to arrange another time.

**Missed Midterms, tests, tutorial assignments, labs or lab reports due to illness or other exceptional circumstances:** We understand that sometimes students are ill and cannot come to Dalhousie campus. If you must miss a due date because of illness or for other reasons:

1. **Notify the Dr. Schofield (a.schofield@dal.ca)** by e-mail **prior** to the academic requirement deadline or scheduled time to arrange a makeup or extension. Accommodations will depend on your situation and will be decided together with Dr. Schofield.
2. **Submit a Student Declaration of Absence Form through Brightspace** within three (3) days following the last day of absence. Can be used **once** per term for absences of **3 days or less** to avoid academic penalty or loss of marks. For more info [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)
3. For absences of **longer than 3 days**, current regulations established by the University state students cannot submit a Student Declaration of Absence Form. Please contact Dr. Schofield.

There will be times during your term when you may have deadlines in different courses at the same time. **PLAN AHEAD. WORK CONSISTENTLY. TEST YOUR RECALL.** Your time at University should, among other things, teach you to develop effective time management skills and study habits. On the other hand, unforeseen events such as personal/family crises or illness can occur during the term. These occurrences are unavoidable, and I (Dr. Schofield) will be most understanding and willing to make alternate arrangements. Please reach out to me.

### Course Policies related to Academic Integrity

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In BIOL 2030, group work in lecture, tutorial and lab is encouraged. You will be placed in pods of 6 people for tutorials and pods of 4 for labs.

- In tutorials, you are encouraged to discuss the questions as you complete the Achieve questions together and help your podmate's understanding (think like a tutor or TA : ).
- In labs, you can discuss questions with your pod of 4 and all can contribute to a single group in-lab assignment.
- You should show your unique and original work in the epistasis report, your drafts and final scientific paper, which are all **individual** and **in your own voice** (no direct quotes from other sources- we want to know what you think!).

The epistasis report and drafts and the final version of your scientific paper will be screened for plagiarism by **Turnitin**.

**Use of any online "homework" sites like Chegg or CourseHero** will lead to an academic integrity investigation.



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UNIVERSITY

**Midterms are individual, in-person only, and not collaborative.** Even though you work together to learn and prepare for the midterms, know that you will need to rely on your own **knowledge, recall and problem-solving abilities** when assessed in your midterm, so **practice these skills throughout term if you want to do well.**

**Faculty of Science Course Syllabus (Section B)  
Summer 2025  
*BIOL 2030 – Genetics and Molecular Biology***

## University Policies and Statements

### **Recognition of Mi'kmaq Territory**

Dalhousie University would like to acknowledge that the University is on Traditional Mi'kmaq Territory. The Elders in Residence program provides students with access to First Nations elders for guidance, counsel, and support. Visit or e-mail the Indigenous Student Centre at 1321 Edward St or [elders@dal.ca](mailto:elders@dal.ca). Additional information regarding the Indigenous Student Centre can be found at: [https://www.dal.ca/campus\\_life/communities/indigenous.html](https://www.dal.ca/campus_life/communities/indigenous.html)

### **Internationalization**

At Dalhousie, 'thinking and acting globally' enhances the quality and impact of education, supporting learning that is "interdisciplinary, cross-cultural, global in reach, and orientated toward solving problems that extend across national borders." Additional internationalization information can be found at: <https://www.dal.ca/about-dal/internationalization.html>

### **Academic Integrity**

At Dalhousie University, we are guided in all our work by the values of academic integrity: honesty, trust, fairness, responsibility, and respect. As a student, you are required to demonstrate these values in all the work you do. The University provides policies and procedures that every member of the university community is required to follow to ensure academic integrity. Additional academic integrity information can be found at: [https://www.dal.ca/dept/university\\_secretariat/academic-integrity.html](https://www.dal.ca/dept/university_secretariat/academic-integrity.html)

## **Accessibility**

The Student Accessibility Centre is Dalhousie's centre of expertise for matters related to student accessibility and accommodation. If there are aspects of the design, instruction, and/or experiences within this course (online or in-person) that result in barriers to your inclusion, please contact the Student Accessibility Centre ([https://www.dal.ca/campus\\_life/academic-support/accessibility.html](https://www.dal.ca/campus_life/academic-support/accessibility.html)) for all courses offered by Dalhousie with the exception of Truro. For courses offered by the Faculty of Agriculture, please contact the Student Success Centre in Truro (<https://www.dal.ca/about-dal/agricultural-campus/student-success-centre.html>)

## **Conduct in the Classroom – Culture of Respect**

Substantial and constructive dialogue on challenging issues is an important part of academic inquiry and exchange. It requires willingness to listen and tolerance of opposing points of view. Consideration of individual differences and alternative viewpoints is required of all class members, towards each other, towards instructors, and towards guest speakers. While expressions of differing perspectives are welcome and encouraged, the words and language used should remain within acceptable bounds of civility and respect.

## **Diversity and Inclusion – Culture of Respect**

Every person at Dalhousie has a right to be respected and safe. We believe inclusiveness is fundamental to education. We stand for equality. Dalhousie is strengthened in our diversity. We are a respectful and inclusive community. We are committed to being a place where everyone feels welcome and supported, which is why our Strategic Direction prioritizes fostering a culture of diversity and inclusiveness (Strategic Priority 5.2). Additional diversity and inclusion information can be found at: <http://www.dal.ca/cultureofrespect.html>

## **Student Code of Conduct**

Everyone at Dalhousie is expected to treat others with dignity and respect. The Code of Student Conduct allows Dalhousie to take disciplinary action if students don't follow this community expectation. When appropriate, violations of the code can be resolved in a reasonable and informal manner - perhaps through a restorative justice process. If an informal resolution can't be reached, or would be inappropriate, procedures exist for formal dispute resolution. The full Code of Student Conduct can be found at:

[https://www.dal.ca/dept/university\\_secretariat/policies/student-life/code-of-student-conduct.html](https://www.dal.ca/dept/university_secretariat/policies/student-life/code-of-student-conduct.html)

### **Fair Dealing Policy**

The Dalhousie University Fair Dealing Policy provides guidance for the limited use of copyright protected material without the risk of infringement and without having to seek the permission of copyright owners. It is intended to provide a balance between the rights of creators and the rights of users at Dalhousie. Additional information regarding the Fair Dealing Policy can be found at: [https://www.dal.ca/dept/university\\_secretariat/policies/academic/fair-dealing-policy-.html](https://www.dal.ca/dept/university_secretariat/policies/academic/fair-dealing-policy-.html)

### **Originality Checking Software**

The course instructor may use Dalhousie's approved originality checking software and Google to check the originality of any work submitted for credit, in accordance with the Student Submission of Assignments and Use of Originality Checking Software Policy. Students are free, without penalty of grade, to choose an alternative method of attesting to the authenticity of their work and must inform the instructor no later than the last day to add/drop classes of their intent to choose an alternate method. Additional information regarding Originality Checking Software can be found at:

[https://www.dal.ca/dept/university\\_secretariat/policies/academic/student-submission-of-assignments-and-use-of-originality-checking-software-policy-.html](https://www.dal.ca/dept/university_secretariat/policies/academic/student-submission-of-assignments-and-use-of-originality-checking-software-policy-.html)

### **Student Use of Course Materials**

Course materials are designed for use as part of this course at Dalhousie University and are the property of the instructor unless otherwise stated. Third party copyrighted materials (such as books, journal articles, music, videos, etc.) have either been licensed for use in this course or fall under an exception or limitation in Canadian Copyright law. Copying this course material for distribution (e.g. uploading to a commercial third-party website) may lead to a violation of Copyright law.

# Student Resources and Support

## University Policies and Programs

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

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

Classroom Recording Protocol:

[https://www.dal.ca/dept/university\\_secretariat/policies/academic/classroom-recording-protocol.html](https://www.dal.ca/dept/university_secretariat/policies/academic/classroom-recording-protocol.html)

Dalhousie Grading Practices Policies:

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

Grade Appeal Process: [https://www.dal.ca/campus\\_life/academic-support/grades-and-student-records/appealing-a-grade.html](https://www.dal.ca/campus_life/academic-support/grades-and-student-records/appealing-a-grade.html)

Sexualized Violence Policy: [https://www.dal.ca/dept/university\\_secretariat/policies/health-and-safety/sexualized-violence-policy.html](https://www.dal.ca/dept/university_secretariat/policies/health-and-safety/sexualized-violence-policy.html)

Scent-Free Program: <https://www.dal.ca/dept/safety/programs-services/occupational-safety/scent-free.html>

## Learning and Support Resources

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

General Academic Support – Advising (Truro): <https://www.dal.ca/about-dal/agricultural-campus/ssc/academic-support/advising.html>

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

On Track (helps you transition into university, and supports you through your first year at Dalhousie and beyond): [https://www.dal.ca/campus\\_life/academic-support/On-track.html](https://www.dal.ca/campus_life/academic-support/On-track.html)

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

Indigenous Connection: <https://www.dal.ca/about-dal/indigenous-connection.html>

Elders-in-Residence (The Elders in Residence program provides students with access to First Nations elders for guidance, counsel, and support. Visit the office in the Indigenous Student Centre or contact the program at [elders@dal.ca](mailto:elders@dal.ca) or 902-494-6803:

<https://cdn.dal.ca/content/dam/dalhousie/pdf/academics/UG/indigenous-studies/Elder-Protocol-July2018.pdf>

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

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

South House Sexual and Gender Resource Centre: <https://southhousehalifax.ca/about/>

LGBTQ2SIA+ Collaborative: <https://www.dal.ca/dept/vpei/edia/education/community-specific-spaces/LGBTQ2SIA-collaborative.html>

Dalhousie Libraries: <http://libraries.dal.ca/>

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

Dalhousie Student Advocacy Services: <https://www.dsu.ca/dsas?rq=student%20advocacy>

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

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

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

Study Skills/Tutoring: [http://www.dal.ca/campus\\_life/academic-support/study-skills-and-tutoring.html](http://www.dal.ca/campus_life/academic-support/study-skills-and-tutoring.html)

Faculty of Science Advising Support: <https://www.dal.ca/faculty/science/current-students/undergrad-students/degree-planning.html>

## **Safety**

Biosafety: <http://www.dal.ca/dept/safety/programs-services/biosafety.html>

Chemical Safety: <https://www.dal.ca/dept/safety/programs-services/chemical-safety.html>

Radiation Safety: <http://www.dal.ca/dept/safety/programs-services/radiation-safety.html>

Laser Safety: <https://www.dal.ca/dept/safety/programs-services/radiation-safety/laser-safety.html>