

# Statistical Methods I Syllabus

## Department of Psychology and Neuroscience

### PSYO 2501 Fall 2024

*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.*

#### Course Instructors and Office Hours

**Instructor:** Dr. Sean P. Mackinnon, [mackinnon.sean@dal.ca](mailto:mackinnon.sean@dal.ca)  
**Co-Instructor:** Jennifer McArthur, [jennifer.mcarthur@dal.ca](mailto:jennifer.mcarthur@dal.ca)

**Drop-in Office Hours:** **Tues, 9:30am to 11:30am, LSC 2540 (Sean)**  
Fridays, 2pm to 4pm LSC 5294 (Jen)  
Virtual meetings by appointment (send an email to any instructor or TA)

#### Teaching Assistants:

(Sophie Stewart) [sophie.stewart.a@dal.ca](mailto:sophie.stewart.a@dal.ca)  
(Ahmad Rezai Mianroodi) [ah915626@dal.ca](mailto:ah915626@dal.ca)  
(Jamil Muradov) [j.muradov@dal.ca](mailto:j.muradov@dal.ca)

#### Course Structure

**Lectures:** Wednesdays, 11:25am to 12:55am (Rowe 1028)

**Laboratories:** Section B01: Thursdays, 10:05am to 11:25am (Killam MacMechan Auditorium)  
Section B02: Fridays, 11:35am to 12:55pm, (Dunn 117)

**Course delivery:** In-person, with recorded lectures. Exams require on-campus attendance.

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#### Course Description

This course provides an introduction to research design and statistics within Neuroscience and Psychology. Particular emphasis is placed on conducting and interpreting various statistical procedures, including descriptive and inferential statistics (z-test, t-test, ANOVA, chi-square tests), frequently used in these fields.

#### Course Corequisites

PSYO 2000.03 or NESC 2007.03 (must be taken concurrently)

#### Course Exclusion

PSYO 3501.03 (no longer a taught class)

#### Key knowledge or skills expected of students coming into the course

Students are expected to have basic algebra and arithmetic skills at a high school level. This includes: Order of operations, fractions, decimals, negative numbers, basic algebra, exponents and square roots. A self-test and basic mathematics review is posted on the course website for those students who need to review these skills. No statistical knowledge is needed before taking the course: It is assumed that this will be students' first statistics course.

## Learning Objectives

- 1. Conceptual Knowledge:** Conceptually understand descriptive and inferential statistics, hypothesis testing, and the theory that allows researchers to make inferences about a population from a sample.
- 2. Application:** Select the right statistic or data visualization to use given a specific hypothesis and type of data.
- 3. Calculation:** With the aid of a calculator and provided formulas, be able to calculate simple descriptive and inferential statistics.
- 4. Interpretation:** Interpret and make appropriate inferences from computerized output from statistical software, data visualizations, or summaries of results written in APA format.

## Student Resources

Our weekly workshops on most Thursdays/Fridays are a main source of support for learning the material (one Instructor and all teaching assistants will be present during workshops to help you). Our Brightspace page also has a discussion board where you can post questions about course material asynchronously. Instructors hold weekly drop-In office hours for In-person one-on-one assistance (see schedule above). Finally, if none of the above work for you, you can send any Instructor or teaching assistant an email with questions or to schedule a virtual meeting at a mutually convenient time.

## Course Materials

### Required Textbook

Diez, D. M., Barr, C. D., & Cetinkaya-Rundel, M. (2019). *Open-Intro statistics 4<sup>th</sup> edition*. CreateSpace independent publishing platform.

This book has the associated readings for the course, and also contains practice problems and links to online videos. This textbook is an open access textbook. This means the electronic version of the book is FREE and available online without any cost. The associated textbook website with additional resources, and a .pdf copy to download can be found here (and is also posted on our PSYO 2501 Brightspace page):

<https://www.openintro.org/book/os/>

It asks for a donation, but you can set it to \$0 to get the .pdf of the book for free. There are also a limited number (~200) of printed copies of the textbook available at the bookstore, for students who prefer to read a paper copy. These textbooks should be around \$35 each and are likely much more convenient than printing the book using a computer printer. You can also buy a printed copy of the text from Amazon:

<https://www.amazon.ca/OpenIntro-Statistics-Fourth-David-Diez/dp/1943450072>

**IMPORTANT: The 3rd edition of the book is no longer suitable for the course, as there were some BIG structural changes in the new book version. Use the 4th edition, not the 3rd edition of this book.**

### Optional Textbook

Klein, G., & Dabney, A. (2013). *The cartoon introduction to statistics*. New York: Hill and Wang.

This textbook is a supplementary guide intended to provide extra help to gain conceptual understanding of statistics. This book is a VERY straightforward guide that will help you understand the conceptual and theoretical parts that underlie the statistics we cover in this class. It may also please you to know that this book is written entirely in comic book form, making it fun to read. This book only covers material from the first month of the course, but these foundations remain applicable throughout the course. The book is relatively inexpensive, and there are copies available at the bookstore for purchase (though not many,

since I anticipate that many students will not buy this book). I also have put two copies of the book on reserve in the Killam library.  
<https://www.amazon.ca/Cartoon-Introduction-Statistics-Grady-Klein/dp/0809033593>

**Software**

The current class will make use of RShiny applications (<https://shiny.rstudio.com/>), which are created with R statistical software. These applications are point-and-click software that work through an internet web browser (e.g., Firefox, Safari) and will not require you to install anything. You will also need to use and access our course Brightspace page to access lecture slides,videos, and to submit quizzes.

**Electronic Devices**

Bringing an Internet-ready electronic device to class such as a laptop, tablet, or cell phone is strongly recommended (especially for the workshops). We will occasionally use online calculators and tools during class time. However, during exams, the only electronic device that is permitted will be a non-programmable calculator that does not store text. You may often find a dedicated calculator to be useful in the workshops as well, even if your phone has one.

**Course Assessment**

Component	Weight (% of final grade)	Due Date(s)
Midterm Exam 1	20%	B01 Lab Section: Oct 10 B02 Lab Section: Oct 11
Midterm Exam 2	20%	B01 Lab Section: Nov 7 B02 Lab Section: Nov 8
Final Exam	24%	TBA in exam period
9 Workshops	36% (4% each)	W1: Saturday, Sept 14 W2: Saturday, Sept 21 W3: Saturday, Sept 28 W4: Saturday, Oct 5 W5: Saturday, Oct 19 W6: Saturday, Oct 26 W7: Saturday, Nov 2 W8: Saturday, Nov 23 W9: Saturday, Nov 30
Experimental Participation	2% Bonus	Until SONA closes early Dec

**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)		

**WORKSHOPS (36%)**

Workshops will take place during the lab section of the class on most Thursday/Fridays. You will work in small groups to solve statistical problems. This may involve hand calculations, using online statistical tools, and/or interpreting output from statistical software. During these periods, the teaching assistants and I will be present to answer questions and assist you. I may also provide some brief instructions at the beginning of each workshop period. Though you will work with others in groups, each person will be graded individually. Your grade will come from answering questions online using Brightspace. These questions will be closely linked to the activities of theworkshop, so attending the workshop is important for doing well on these questions. The intentis for most students to complete these questions on Brightspace in class

before the end of each workshop. However, you may continue to work on them at home if you do not finish.

You are encouraged to work together in small groups when completing assessments in this class. Statistics is a difficult and often anxiety-provoking topic with a lot of problem-solving, and you will learn a lot more if you work with others to solve the problems and discuss your answers together.

To help facilitate different schedules, a .pdf copy of the workshop will be posted on Brightspace on Wednesday. A paper copy will be handed out in the Thursday and Friday labs. The answer to these questions will always be due 11:59PM on Saturday. See the section “Student Declaration of Absence” for extensions needed for compassionate reasons.

Each Brightspace quiz is worth 4% and will have around 8-10 questions. The quizzes are untimed with a single attempt allowed, but they cannot be submitted after the deadline. Online proctoring is not used. Grades are not released until Wednesdays the following week (i.e., after the deadline has passed and all students, including those who asked for extensions with a student declaration of absence, have had a chance to complete it).

## WORKSHOP QUESTION TYPES

Aside from multiple choice questions (which you are familiar with from PSYO 1011/1012), exam formats will also include two other question types: Select all that apply and number fill-in questions.

A “select all that apply” question is like a multiple-choice question, but works like this example:

1. Which of the following are a measure of central tendency in statistics (select all that apply)?

In this case, A, B & C are correct answers. The question is worth 5 points total, and you get 1 point for each correct answer correctly indicated. For example, if you only selected “A & B” you would get 4 out of 5 points. If you selected every option, you’d get 3 out of 5 points. If you selected only “E”, you’d get 1 out of 5 points. In other words, it is possible to get full or partial value for these kinds of questions. There will always be at least 1 option to select (i.e., the fully correct answer will never be to leave EVERY option blank).

- A. Mean
- B. Median
- C. Mode
- D. Standard Deviation
- E. Interquartile range

Fill in the number questions typically involve mathematical calculations. You will not be showing your work but will instead just be typing your final answer into a blank space. This means these kinds of questions will not have partial value awarded. For example:

2. What is 2 divided by 3? (round to two decimal places) \_\_\_\_\_

Answers should be written as decimal numbers, not fractions. In this case, the answer is 0.67.

The question will always specify how many decimal places to round to. Moreover, each question will have a “tolerance” to account for rounding. For instance, I might accept any answer from .66 to .68 as a correct answer. This is because I am not so concerned with small rounding errors in this course.

## EXAMS (64%)

There will be three exams: Two midterms and a final. Given the nature of material in statistics, all exams are cumulative (i.e., material from prior exams can show up on the second midterm and final). This is especially true for the material covered up to Exam 1, as this material is central to everything that follows. That said, there will often be more emphasis on the new material learned for each exam. Exam formats will generally be multiple choice with around 38 questions

and you will have the full class period (80min). Exams are held during the lab sessions, so there are two sessions held on the exam days. This is to make it logistically feasible to hand out all the exams and get everyone seated in time. So, make sure to show up in the room and lab section you are signed up for (B01 or B02).

### **EXPERIEMENTAL CREDIT BONUS POINTS (2%)**

Up to 2 bonus credit points are available by participating in research at Dalhousie University. Typically, 1 credit point is awarded for each hour of experiment participation, up to a maximum of 1 point. This is a great way to boost your grade and learn about real research that is ongoing at Dalhousie, and students are encouraged to participate. Any credit points that will contribute to a student's final grade in PSYO 2501 must be assigned by the last day of classes. To sign up for a SONA account and view available studies go to this weblink:

[https://www.dal.ca/faculty/science/psychology\\_neuroscience/research/credit-point-information.html](https://www.dal.ca/faculty/science/psychology_neuroscience/research/credit-point-information.html)

### **PRACTICE QUESTIONS (0%)**

Each week, there is a file with practice questions that will be posted in a .pdf file. You can work on these practice problems for extra practice. Some practice problems are created by me, while others are in the OpenIntro textbook. In all cases, there is an answer key provided for these questions. They are self-study questions and are not worth points. However, they are good practice for the quizzes and exams.

The free OpenIntro textbook also has 100s of practice questions. The odd-numbered questions have an answer key you can access in Appendix A. Each week in the "Practice Questions" document, I have selected out a subset of those questions that you can try on your own time for practice. I tried to select questions that (a) cover material from class; (b) are relatively close to the style of questions I create; and (c) are more likely to use examples relevant to psychology.

A few frequently asked questions regarding the practice questions:

#### **Q: Where are the practice questions?**

*A: At the end of each chapter in the OpenIntro textbook in the sections labeled "Exercises." For example, question 1.5 is found at the end of Chapter 1, and question 3.1 is found at the end of chapter 3. There will be a list of practice questions as a pdf file called "Week X PSYO 2501 Practice Questions" for each week of the course posted on Brightspace.*

#### **Q: Should I do every practice question in the book?**

*A: No. I provide a smaller list of practice questions you can try each week. I have tried to omit questions I do not think are relevant for our course.*

#### **Q: Where are the answers?**

*A: The answers to odd-numbered questions (1.5, 1.7, etc.) are found in Appendix A in the OpenIntro textbook. The even-numbered questions (1.6, 1.8. etc.) are not open-access and are not provided to students. The answers to the questions I create are in the same .pdf as the questions.*

#### **Q: Why can't you just post all the even-numbered answers?**

*A: Because the answer key for the even-numbered questions are protected by copyright law, and I do not have permission to share them. Here are the reasons given by OpenIntro:*

*"OpenIntro's mission is to increase access to high-quality, low-cost education materials. Without teachers choosing to use our resources, we cannot fulfill our mission, and many teachers have told us it is critical to have some exercises for graded homework or exam questions where no solutions are not readily available to students. Without a large collection of such exercises, many teachers would drop OpenIntro and instead require a more expensive and lower-quality textbook. For this reason, we do not permit sharing of this solution manual. We know this creates challenges for some students and self-study learners who could benefit from a full solution guide, and this decision was not made lightly."*

#### **Q: What do I do if the answer key is wrong?**

*A: It is always possible that there are typos in the answer key. If you think this is the case, please*

email me at [mackinnon.sean@dal.ca](mailto:mackinnon.sean@dal.ca) and I will review it. If there is an error in the key, I will update the document so everyone is aware (or alternatively, will explain the answer to you if the answer key is actually correct).

**Q: Are these worth points?**

*A: No. They are for practice and studying only.*

**Q: Are these questions exactly like your exam and workshop questions?**

*A: No, but they will still be helpful practice.*

## **POLICY REGARDING EXTENSIONS AND MISSED QUIZZES/EXAMS**

Here is the procedure you should follow if you experience short-term illness, distress or other extenuating circumstances that affects your ability to complete quizzes:

a) The Student Declaration of Absence form must be submitted to the course instructor online through Brightspace within three (3) calendar days following the last day of absence. I only accept forms submitted via Brightspace, not in person or by email.

b) The Declaration may only be used for quizzes a maximum of 2 times throughout the term.

**Extension for Workshop Quiz:** You will receive an extension to Tuesday at 11:59PM (3 days later) and can complete and submit the workshop any time before then. Submissions later than this will not be accepted.

**Missed Workshop Quiz:** It may be the case that you do not complete a workshop at all (with or without an extension request). You can miss up to 2 workshop quizzes without a penalty to your final grade. Missing more than 2 quizzes means you will get a zero on every subsequent quiz missed after the second one.

If you do not complete a workshop by the extended deadline, the weight of the missed workshop will be automatically moved to the other completed workshops at the end of the year. For example, if you miss one workshop, the 8 workshops you do complete will be worth 4.5pts each instead of 9 workshops being worth 4pts each (both are a total of 36pts towards your final grade). **You do not need to request this accommodation if you miss a workshop, grades will be adjusted automatically for all students at the end of the year after all workshops are finished.**

**Missed Midterm Exams:** You will complete a make-up exam in-person in group sessions in a similar fashion to the regular exam. The make-up session will be one or more group sessions at a time to be scheduled after the original exam date, depending on the schedules of all those students who miss the exam. Make-up exams will generally need to be within one week of the original exam deadline, as late exams will delay feedback for the rest of the class.

**Missed Final Exam:** The student declaration of absence cannot be used for missed final exams in any class at Dalhousie. If you miss the final exam, please contact me by email as soon as you are able.

If have circumstances making your studies difficult that is lasting for periods longer than 3 days, a student declaration of absence form may not be suitable. In these cases, please email me and we will work out something on a case-by-case basis.

## **HOW GRADES ARE ROUNDED FOR FINAL LETTER GRADES**

Individual assessment components are not rounded (and are left as a decimal grade when appropriate). Final grades with a decimal value greater or equal to 0.5 (e.g., 65.60%) will be rounded up. Final grades with a decimal value less than 0.5 (e.g., 65.49%) will be rounded down.



## ACADEMIC INTEGRITY

You are allowed to work with colleagues during the workshops (and in fact, are encouraged to do so!), and can compare and contrast your results and even do your quizzes together with other students in the class, if that is your preference. In general, the quizzes can be collaborative and working with other students in the class doesn't violate academic integrity. However, seeking external help (e.g., posting on "homework" sites, or paying someone to do the work for you) would be a violation of academic integrity. In essence, working with other students, instructors, or teaching assistants in the class is ok, but involving others outside of the class is not.

Sharing printed copies of workshops, exam questions, or quiz questions online (e.g., posting them online, including email and text) is not permitted, and would be a violation of academic integrity. You can maintain personal copies of workshops for your own educational purposes under fair use, but the exam questions will not be released or shared in digital format.

Please do not post my workshop questions to Artificial Intelligence (AI) resources such as ChatGPT because they will plagiarize my course notes for their own corporate interests. Beyond this, you should also consider using AI resources at your own risk in PSYO 2501; they are well-known to have difficulty with mathematical word problems like those in this class because they were never intended to solve these kinds of problems. See here for more info:

<https://usenate.asu.edu/do-math-chatgpt-sometimes-cant-expert-says>

Exams are completed on an individual basis during class time, and you will not be able to collaborate or talk with others while completing the exam.

If you are ever in doubt, ASK ME. I can help you navigate issues of academic integrity in an ethical way. Also, remember: The teaching team is here to help you learn, reach out to us first for help!

Course Content and Schedule

Dates	General Topic	Readings
Wed., Sep. 4	Getting Acquainted	
Thu., Sep. 5 & Fri., Sept 6	NO LAB!	
Wed., Sep. 11	Introduction to Data, Data Visualization,& Descriptive Statistics	OpenIntro: 1.1, 1.2, 2.1, 2.2 (Skip 2.1.7, 2.1.8) Cartoon Guide: Ch 1-5
Thu., Sep. 12 & Fri., Sept 13	Workshop 1: Descriptive Stats	
Wed., Sep. 18	The Normal Distribution & z-scores	OpenIntro: 4.1
Thu., Sep. 19 & Fri., Sept 20	Workshop 2: Normal Distribution	
Wed., Sep. 25	Variability, Confidence Intervals and the Central Limit Theorem	OpenIntro: 5.1, 5.2 Cartoon Guide: Ch 6-8
Thu., Sep. 26 & Fri., Sept 27	Workshop 3: Variability	
Wed., Oct. 2	Hypothesis testing	OpenIntro: 5.3 Cartoon Guide: Ch 9-13
Thu., Oct. 3 & Fri., Oct. 4	Workshop 4: Hypothesis testing	
Wed., Oct. 9	t-tests & effect size Part 1	OpenIntro: 7.1, 7.2
Thu., Oct. 10 & Fri., Oct. 11	<b>Exam 1 (during lab sessions)</b>	
Wed., Oct. 16	t-tests & effect size Part 2	OpenIntro: 7.3 (Skip 7.3.4)
Thu., Oct. 17 & Fri., Oct. 18	Workshop 5: t-tests	
Wed., Oct. 23	Categorical Data I: Test of Proportions	OpenIntro: 6.1, 6.2. (skip 6.2.4, 6.2.5)  Grimes & Schulz (2008)
Thu., Oct. 24 & Fri., Oct. 25	Workshop 6: Comparing Proportions	
Wed., Oct. 30	Categorical Data II: Chi-Squares	OpenIntro: 6.3, 6.4. (skip 6.3.5)
Thu., Oct. 31 & Fri., Nov. 1	Workshop 7: Chi-squares	
Wed., Nov. 6	No class (Study Day)!	
Thu., Nov. 7 & Fri., Nov. 8	<b>Exam 2 (during lab sessions)</b>	
Wed., Nov. 13	READING WEEK: NO CLASS!	
Thu., Nov. 14 & Fri., Nov. 15	READING WEEK: NO CLASS!	
Wed., Nov. 20	One-way ANOVA	OpenIntro: 7.5
Thu., Nov. 21 & Fri., Nov. 22	Workshop 8: ANOVA	
Wed., Nov. 27	Linear Regression and Correlation	OpenIntro: 8.1, 8.2, 8.4 (omit 8.3)
Thu., Nov. 28 & Fri., Nov. 29	Workshop 9: Linear Regression	
Wed., Dec 4	NO CLASS! (Lieu Day, Monday Classes Held)	



## University Policies and Statements (Generic statements from the university for all courses)

### **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.