DALHOUSIE UNIVERSITY

Faculty of Computer Science

CSCI 1105 - Introduction to Computer Programming
Fall 2023 Course Syllabus

Instructor Information

Instructor:	Dr. Eric Poitras	**Course Homepage:**	https://dal.bright-space.com/d2l/home/279818
E-mail:	eric.poitras@dal.ca		
Class Meeting Time:	M 11:35-12:55 W 11:35-12:55	**Room No:**	Carleton DENTISTRY 3156
Office Hours:	M 14:05-15:35 W 14:05-15:35	**Room No:**	Studley GOLDBERG COMPUTER SCIENCE BLDG 209

Course Description

This course provides a general introduction to computer programming. The main focus is on programming skills and how to apply these skills in solving a variety of problems. Procedural programming concepts are stressed.

Upon completion of this course, students should be able to:
- Design, implement, test, and debug a program that uses each of the following fundamental programming constructs: basic computation, simple I/O, standard conditional and iterative structures, the definition of functions, and parameter passing.
- Explain the program inputs, program outputs, and what the program must do (in pseudocode) to solve a problem, given a one-page problem description.
- Explain general programming concepts, such as algorithms, problem decomposition, procedural programming paradigm, and various programming language constructs such as type, control structures, variables, etc.

Learning Outcomes

- Analyze and explain the behavior of simple programs involving the fundamental programming constructs variables, expressions, assignments, I/O, control constructs, functions, parameter passing, and recursion.
- Identify and describe uses of primitive data types.
- Write programs that use primitive data types.
- Modify and expand short programs that use standard conditional and iterative control structures and functions.
- Design, implement, test, and debug a program that uses each of the following fundamental programming constructs: basic computation, simple I/O, standard conditional and iterative structures, the definition of functions, and parameter passing.
- Choose appropriate conditional and iteration constructs for a given programming task.
- Trace the execution of a variety of code segments and write summaries of their computations.
- Construct and debug programs using the standard libraries available with a chosen programming language.
- Apply consistent documentation and program style standards that contribute to the readability and maintainability of software.
- Use types and type error messages to write and debug programs.
- Discuss the importance of algorithms in the problem-solving process.

- Create algorithms for solving simple problems.
- Use a programming language to implement, test, and debug algorithms to solve simple problems.
- Apply the techniques of decomposition to break a program into smaller pieces.
- Implement basic numerical algorithms.

Course Rationale

This introductory course assumes no prior knowledge regarding programming. It will cover the essentials of procedural programming using Java as a language, and the skills gained are expected to facilitate performance in problem solving and learning of other languages of interest covered beyond CSCI 1105.

Course Format

- Content will be delivered using live, in-person lectures (video recordings will be provided) and labs. Labs and practicums will NOT be recorded.
- We will use **Microsoft Teams** for the Q&A forum. Please post all Java related questions to the Q&A forum, so that other students can benefit from your questions as well.
- Students will be expected to use **Codio** and **Processing** as an integrated development environment (IDE) installed on their own laptops to complete exercises as well as participate in activities held in lectures and labs. Students may also download the **IntelliJ** IDE using the community edition or by applying to a free individual license for education (optional).
- Students will be expected to use **Brightspace** to complete tests as well as exercises that consist of exercises including but not limited to multiple-choice questions. Course announcements will be posted to Brightspace. It is the student's responsibility to check both their Dalhousie email and Brightspace daily. To access your Dal email account please see: https://www.dal.ca/dept/its/o365/services/email.html.

Required Texts and Resources

The textbook is strongly recommended, as it will provide you with a supplement of what we cover in class: *Big Java: Late Objects, 2nd Edition by Cay S. Horstmann. ISBN: 978-1-119-32107-1*
- The e-Book can be purchased or rented via the following link: https://www.wiley.com/en-ca/Big+Java%3A+Late+Ob-jects%2C+2nd+Edition-p-9781119321071 or via the campus bookstore using this link.

Contact Information

- For any personal or confidential issues, such as SDAs or emergencies, please contact your instructor directly: **eric.poitras@dal.ca**.
- For waitlist and registration questions, please email **undergrad@cs.dal.ca**
- For questions related to course content, please use the **Teams Q&A channel**, so that other students can benefit from your questions as well.

Notes

- A minimum grade of C is required in this course if it is core to your FCS degree, or if it will be used as a prerequisite for a subsequent CSCI course.
- As of 2019, students who receive a grade lower than C in the same required CS course twice, will be dismissed.
- The grade conversion scale in Section 17.1 of the Academic Regulations, Undergraduate Calendar will be used. https://academiccalendar.dal.ca/Catalog/ViewCatalog.aspx?pageid=viewcatalog&catalogid=111&chapterid=6817&topicgroupid=29869&loaduseredits=False
- A student must obtain a minimum grade of 50% to pass the course.

Evaluation Criteria

Assessment	#	Weight	Total
Formative (13%)			
Problems of the Module	Reading	2%	8%
	Revising	2%	
	Writing	4%	
Lab Attendance	>= 10 sessions	0.5%	5%
Summative (87%)			
Practicums	1	7%	21%
	2	7%	
	3	7%	
Assignments	1	6%	18%
	2	6%	
	3	6%	
Tests	1	12%	48%
	2	16%	
	3	20%	
FINAL GRADE OUT OF 100%			**100%**
CSEd Study Research Participation Credits		+ Bonus Points	

Formative Assessments

A formative assessment is a type of evaluation to provide ongoing opportunities to practice and receive feedback on your progress and understanding during the course. These exercises are designed to track progress, identify areas that need improvement, and improve learning effectiveness.

Problems of the Module (8%)

- Problems of the Module are self-paced exercises, allowing for multiple attempts to test your solution and receive immediate feedback.
- Here is a detailed breakdown by module of practice opportunities for each type. You will be credited for up to a certain number of exercises completed, retaining the highest scores obtained when calculating the grade, as shown below.

Problems	Module	Highest Score From	Total
Reading	1	4 of 6	2%
	2	4 of 6	
	3	3 of 4	
Writing	1	15 of 18	4%
	2	10 of 13	
	3	4 of 6	
Revising	1	4 of 5	2%
	2	4 of 5	
	3	3 of 4	

- Each set of exercises allows for distinct types of practice, depending on whether you are reading, writing, or revising code. Code reading exercises are completed in Brightspace and feature multiple-choice questions, like those that you will be asked to solve during Tests. Code writing and revising exercises are completed in Codio and feature problems to solve, like those that you will encounter during Practicums and Assignments

- These exercises are delivered following a lecture and conducted throughout distinct modules that cover several chapters in your textbook. By completing exercises on a regular basis during the week, learning outcomes will improve. Each set of exercises is due at the end of each module to coincide with the due dates for summative assessments.

Lab Attendance (5%)

- Attendance in labs to complete Problems of the Module is crucial in applying the knowledge gained in lectures. By attending labs, you will retrieve and apply notions that you have learned on a regular basis throughout the week to help solidify concepts.
- Teaching assistants will guide activities throughout the session where you can collaborate with your peers, receive guidance, ask questions, and seek clarifications in a timely manner.
- You are expected to attend in-person at least 10 out of the scheduled lab sessions. Attendance will be tracked through a combination of sign-in sheets and log interactions with exercises.
- Please consult Dal Online to determine which section you are registered for to determine the time and location of your lab. The lab section and drop-in office hours are listed below.

Summative Assessments

A summative assessment is a type of evaluation that is administered at the end of each course module. Its purpose is to evaluate your overall learning outcomes in relation to the learning objectives and highlight areas for improvement.

Practicums (21%)

- Practicums are code writing exercises that are solved in-person during the same sessions as Tests (this may change).
  - Students must implement the solution to each problem on their own.
  - These problems are completed on paper (details will be covered in lecture).
  - Students are not allowed to contact external help.
  - Instructors and TAs will be available during the session to answer certain questions.
- There are 3 Practicums in total, each worth 7%.
- Practicum dates (& planned coverage):
  - See the "tentative course schedule" for practicum dates and content.
  - If you miss one practicum during the semester due to a family emergency or illness, you must submit an SDA to your instructor. A single make-up practicum, if deemed necessary by the instructor, may be offered during the Final Exam Period. If this is required, it will be cumulative and cover all topics.

Assignments (18%)

- Assignments are code writing exercises that are solved outside of class.
  - Students will have approximately two weeks to implement the solution to each problem.
  - Students will work with Processing to complete their assignments (covered during lab sessions)
  - Students are allowed to design their assignments in a collaborative manner, either in their own time or during lab sessions. All student code and solutions must be their own. Collaboration can be used to plan the best approaches to solving problems, but not the actual implementation of those solutions. In a similar way, AI-driven tools to assist you in learning is allowed, but remember that your objective is to understand, achieve, and apply the course competencies and outcomes. This is because a professional must be able to recall, understand, and apply their knowledge of programming notions unassisted by AI technology.
  - See below for notes on academic integrity and steps that can be taken to avoid plagiarism, for instance, never discuss or share solutions with others and mention any help received in designing solutions from others in the form of citations when documenting assignment files.

- There will be a total of 3 assignments. Each assignment is worth 6%.
- Assignment dates (& planned coverage):
  - See the "tentative course schedule" for assignment dates and content.
  - You may NOT submit an SDA for assignments. If extensions are necessary (as deemed by the instructor), then please contact the instructor well in advance of the assignment deadline. Accommodation will be provided where possible.

Notes on Marking Practicum and Assignments
- Your code will be manually graded by course markers and/or the instructor.
- Solutions to assignments that are non-compiling will receive a very low grade as it is necessary for them to be functional, but not sufficient in meeting the stated requirements.
- Partial correctness of solutions is marked for both assignments and practicums according to the rubrics provided in Brightspace.
- Adherence to code quality and styling guidelines is marked for Assignments. You may consult the following resource for code quality and styling guidelines as well as the rubric used by markers to provide feedback: https://ericpoitras.github.io/CSCI1105_StyleGuidelines/.
- All submitted code will be passed through the Moss Software Similarity Detection System to check for plagiarism (https://www.codio.com/plagiarism-detection-for-source-code).
  - It is your responsibility to complete the Academic Integrity module in the course Brightspace to understand what constitutes plagiarism and take the proper steps to avoid offences.
  - When an academic offence is suspected, the instructor shall submit a signed statement outlining the basis for the allegation, together with all supporting evidence, to the Academic Integrity Officer at the Faculty.
  - If in doubt, please ask your instructor! Collaborating is important while programming, but we must be careful while doing so in the context of summative assessments. It's always best to ask, either before, during, or after collaboration. I'm not out to get you, so just come talk to me!
  - AI-driven tools are only allowed for Assignments; you must acknowledge all tools used to assist you and if applicable, provide links to chat logs/original code snippets in the documentation. Using AI-driven tools when producing submitted work for Tests and/or Practicums constitutes an academic offense.

Tests (48%)
- Tests include exercises solved in-person during the same sessions as Practicums (this may change).
  - Test times and locations will be scheduled in the evening and communicated weeks prior to the tests (exact times and locations are tentative, depending on room booking availability).
  - These problems are completed on paper (details will be covered in lecture).
  - Students are not allowed to contact external help, nor allowed to use any computers or devices (beyond any accommodation requirements).
  - The instructors and TAs will be available during the session to answer questions.
- There are 3 Tests in total, each worth 12%, 16%, and 20% for Test 1, 2, and 3, respectively.
- See the "tentative course schedule" for test dates and content. Test 3 is cumulative, though emphasis will be on later modules.
- If you miss Test 3 due to a family emergency or illness, you must submit an SDA to your instructor. A make-up exam, if deemed necessary by the instructor, may be offered during the Final Exam Period. If this is required, it will be cumulative and cover all topics. If you miss the first or second exam, you may be exempted (with weights shifted) at the discretion of your instructor and must submit an SDA.

Course Policies

Student Declaration of Absence (SDA)

The **Student Declaration of Absence Form** replaces sick notes for absences of **three days or less** that result in missed or late academic requirements.

- You must submit this WITHIN THREE BUSINESS DAYS OF YOUR ABSENCE.
- A single make-up examination (i.e., whether test OR practicum) may be offered during the exam period.
- To submit, you can access and submit this form on *Brightspace > CSCI 1105 > Assignments > Student Declaration of Absence > Submissions.*
    - A maximum of two SDA forms can be submitted during a term. Any additional absences causing you to miss an academic requirement **does not qualify as an exemption.**
    - If you miss a test OR practicum due to a family emergency or illness, you must submit an SDA to your instructor. A make-up exam or practicum, if deemed necessary by the instructor, may be offered during the Final Exam Period. If this is required, it will be cumulative and cover all topics.
    - You may be exempt from an academic requirement at the discretion of the course instructor by replacing a missing score with the weighted average of the assignment category (either a test OR practicum) that serve as evidence of understanding of **equivalent** subject matter.
    - A form may be submitted for either a Test or Practicum, but not in the case of missing an Assignment deadline.
    - If you have a recurring short-term or long-term absence, I strongly encourage you to meet your Faculty Program Coordinator and myself to discuss whether an alternate grading scheme is appropriate. Missed academic requirement for the course will be graded as 0 due to insufficient evidence of understanding of the subject matter.

Academic Standards

Failure to properly attribute sources in your work will be treated as an academic standards issue and points may be deducted for not following citation requirements. For example, forgetting to quote text taken from other sources, failure to include in-text citations, or failure to include required information in the citations or references. Please see the resources on proper citation provided by the Dalhousie Writing Center (https://dal.ca.libguides.com/c.php?g=257176&p=5001261).

Please note that if it appears that the error was made with intent to claim other people's work as your own such as a lack of both citations and references, an allegation of plagiarism will be submitted to the Faculty Academic Integrity Officer, which could result in consequences such as a course failure.

Responsible Computing Policy

Usage of all computing resources in the Faculty of Computer Science must be within the Dalhousie Acceptable Use Policies (https://www.dal.ca/dept/university_secretariat/policies/information-management-and-technology/acceptable-use-policy-.html) and the Faculty of Computer Science Responsible Computing Policy. For more information please see https://www.dal.ca/content/dam/dalhousie/pdf/faculty/computerscience/policies-procedures/fcs_policy_local.pdf

Use of Plagiarism Detection Software

All submitted code may be passed through a plagiarism detection software, such as the plagiarism detector embedded in Codio, the Moss (https://theory.stanford.edu/~aiken/moss/) Software Similarity Detection System, or similar systems. If a student does not wish to have their assignments passed through plagiarism detection software, they should contact the instructor for an alternative. Please note, that code not passed through plagiarism detection software will necessarily receive closer

scrutiny. https://cdn.dal.ca/content/dam/dalhousie/pdf/dept/university_secretariat/policy-repository/OriginalitySoftwarePolicy.pdf

Student Health and Wellness

Taking care of your health is important. As a Dalhousie student, you have access to a wide range of resources to support your health and wellbeing. Students looking to access physical or mental health & wellness services at Dalhousie can go to the Student Health & Wellness Centre in the LeMarchant Building. The team includes: registered nurses, doctors, counsellors and a social worker. Visit **dal.ca/studenthealth** to learn more and book an appointment today.

Students also have access to a variety of online mental health resources, including telephone/texting counselling and workshops/training programs. Learn more and access these resources at d**al.ca/mentalhealth**.

Culture of Respect[1]

Every person has a right to respect and safety. We believe inclusiveness is fundamental to education and learning. Misogyny and other disrespectful behaviour in our classrooms, on our campus, on social media, and in our community is unacceptable. As a community, we must stand for equality and hold ourselves to a higher standard.

What we all need to do:
1. **Be Ready to Act:** This starts with promising yourself to speak up to help prevent it from happening again. Whatever it takes, summon your courage to address the issue. Try to approach the issue with open-ended questions like "Why did you say that?" or "How did you develop that belief?"
2. **Identify the Behaviour:** Use reflective listening and avoid labeling, name-calling, or assigning blame to the person. Focus the conversation on the behaviour, not on the person. For example, "The comment you just made sounded racist, is that what you intended?" is a better approach than "You're a racist if you make comments like that."
3. A**ppeal to Principles:** This can work well if the person is known to you, like a friend, sibling, or co-worker. For example, "I have always thought of you as a fair-minded person, so it shocks me when I hear you say something like that."
4. **Set Limits:** You cannot control another person's actions, but you can control what happens in your space. Do not be afraid to ask someone "Please do not tell racist jokes in my presence anymore" or state "This classroom is not a place where I allow homophobia to occur." After you have set that expectation, make sure you consistently maintain it.
5. **Find or be an Ally:** Seek out like-minded people that support your views, and help support others in their challenges. Leading by example can be a powerful way to inspire others to do the same.
6. **Be Vigilant:** Change can happen slowly, but do not let this deter you. Stay prepared, keep speaking up, and do not let yourself be silenced.

University Statements

This course is governed by the academic rules and regulations set forth in the University Calendar and the Senate. https://academiccalendar.dal.ca/Catalog/ViewCatalog.aspx?pageid=viewcatalog&catalogid=117&loaduseredits=False

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[1] Source: Speak Up! © 2005 Southern Poverty Law Center. First Printing. This publication was produced by Teaching Tolerance, a project of the Southern Poverty Law Center. Full "Speak Up" document found at: http://www.dal.ca/dept/dalrespect.html. Revised by Susan Holmes from a document provided April 2015 by Lyndsay Anderson, Manager, Student Dispute Resolution, Dalhousie University, 902.494.4140, lyndsay.anderson@dal.ca www.dal.ca/think.

Territorial Acknowledgement

Dalhousie University is located in Mi'kma'ki, the ancestral and unceded territory of the Mi'kmaq. We are all Treaty people. Dalhousie acknowledges the histories, contributions, and legacies of the African Nova Scotia people and communities who have been here for over 400 years.

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." https://www.dal.ca/about-dal/internationalization.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. 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. (read more: http://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: https://www.dal.ca/campus_life/academic-support/accessibility.html for all courses offered by Dalhousie with the exception of Truro.

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). (read more: 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. (read more: https://cdn.dal.ca/content/dam/dalhousie/pdf/dept/university_secretariat/policy-repository/Code%20of%20Student%20Conduct%20rev%20Sept%202021.pdf)

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. (read more: https://www.dal.ca/dept/university_secretariat/policies/academic/fair-dealing-policy-.html)

Student Use of Course Materials

These course materials are designed for use as part of the CSCI courses 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 material to a commercial third party website) may lead to a violation of Copyright law.

Learning and Support Resources

Please see https://www.dal.ca/campus_life/academic-support.html

CSEd Research Corner

CSΞd The CSEd Research Corner module is available under Getting Started in the course Brightspace. You may sign up to participate in studies by sharing your data with research assistants who are currently pursuing research projects in the computer science education research cluster of the Faculty of Computer Science. **Sharing your educational data not only supports research assistants in completing honors and thesis projects but may also provide you bonus marks to credit your participation.** To learn more about how to get involved and scholarship opportunities, follow this link and click on the hyperlink to participate. Please direct questions to dallearningcodelab@dalu.onmicrosoft.com

Creative Coding Assignments
Study is completed remotely in Brightspace. Receive +0.5% bonus marks towards the course grade for completing each of three surveys tied to course assignments, up to a total of 1.5%.
- Click here to participate

Transitioning From One Language to Another
Study is completed remotely in Codio. +1% bonus marks towards the course grade for completing the CSEd Research Corner module for Lecture 3 Input/Output Operations.
- Click here to participate

Exploring Alternate Conceptions
Study is completed remotely in Brightspace. Share your educational data as part of completing the CSEd Research Corner challenging memory notions and knowledge check exercises, where you receive formative feedback that include memory diagram that address common misconceptions about Java.
- Click here to participate

Learning Complex Topics with Analogies and Program Visualizations
Study is completed remotely in Codio. Receive +1% bonus marks towards the course grade for completing the CSEd Research Corner module of Lecture 10 on ArrayList and Lecture 14 on Recursion.
- Click here to participate

Learning How to Design Solutions
Study is completed remotely in Codio. Receive +1% bonus marks towards the course grade for completing design sketches and activities at the beginning of each course module.
- Click here to participate

Learning by Teaching Program Tracing
Study is completed remotely in Codio. Receive +1% bonus marks towards the course grade for completing the CSEd Research Corner module for Lecture 7 Boolean Expressions.
- Click here to participate

More information about details involved in participation are available in the CSEd Research Corner in the course Brightspace.

Important Dates

https://www.dal.ca/academics/important_dates.html
- Classes begin for Fall term: September 5, 2023
- Final Withdrawal Date without financial penalty: September 19th, 2023
- Last day to drop Fall term classes without a "W": October 4th, 2023
- Last day to drop Fall term classes with a "W": November 2nd, 2023
- Reading week (no classes): November 13-17, 2023
- Holidays:
  - October 2nd: National Day for Truth and Reconciliation – University closed
  - October 9th: Thanksgiving Day – University closed
  - November 13th: Remembrance Day – University closed
- Classes end for Fall term: December 6th, 2023
- Tuesday, December 5 - Monday classes will be held
- Wednesday, December 6 – Monday classes will be held

Tentative Summative Assessment Schedule

Schedules are **tentative** and subject to change – class announcements will be posted to the course Brightspace

Assignments

Description	Due Date	Topics
Assignment 1	14-Oct	Arithmetic & String Operations Relational & Logical Operators Selections
Assignment 2	17-Nov	Loops Arrays
Assignment 3	15-Dec	Methods

Tests and Practicums

Description	Time	Due Date	Location
Test & Practicum 1	18:35-20:35	10-Oct	LSC-Psych P4260
Test & Practicum 2	18:35-21:35	7-Nov	LSC-Psych P4260
Test & Practicum 3	18:35-21:35	5-Dec	CHEB 170

Note: Tests and Practicums will be held in the evening during the weeks listed above. The scheduled time will be communicated well in advance of the test times. Depending on the topic coverage leading up to the tests and practicums across different course sections, tests and practicums may be split into individual sessions on separate nights (if necessary).

Course Schedule Calendar

W	Day	Date	Lectures (Readings)	PoMs	Laboratory	Assignments
1	Wednesday	6-Sep	Lecture 1. Welcome, Overview of Syllabus, Introduction (Ch 1.1, 1.2)			
2	Monday	11-Sep	Lecture 2. Basics: Java Programming Environment (Ch 1.3, 1.4, 1.5, 1.6)	R2	Java and Processing Basics	
	Wednesday	13-Sep	Lecture 3. Data Types, Input and Output (Ch 2.1, 2.3)	R3, W2.1, D3		
3	Monday	18-Sep	Lecture 4. Primitive Variables, Arithmetic Operations (Ch 2.2)	R4, W2.2, 2.3, 2.4, 3.1, 3.4, D4	More Processing and Java Basics	
	Wednesday	20-Sep	Lecture 5. Reference Variables, String Operations (Ch 2.3, 2.5)	R5, W3.2, 3.3, 4.2, D5		
4	Monday	25-Sep	Lecture 6. Conditional Control Structures (Ch 3.1, 3.2, 3.3)	R6, W4.1, 4.3, 4.4, 5.2, 5.3, 6.2, D6	Conditionals	
	Wednesday	27-Sep	Lecture 7. Boolean Variables and Operators (Ch 3.7, 3.8)	R7, W5.1, 5.4, 6.1, D7		
5	Monday	2-Oct	National Day for Truth and Reconciliation		Practice Practicum	
	Wednesday	4-Oct	TEST 1/Practicum 1 Review. Will cover Ch 1-3.			
6	Monday	9-Oct	Thanksgiving Day		Arrays and Loops – Part 1	
	Tuesday	10-Oct	TEST 1/Practicum 1			
	Wednesday	11-Oct	Module 1 Feedback and Q & A			
	Saturday	14-Oct				Assignment 1
7	Monday	16-Oct	Lecture 8. Iteration Control Structures (Ch 4.1, 4.3, 4.4., 4.5, 4.7, 4.8)	R8, W6.4, 7.1, 7.2, 7.3, 7.4, D8	Arrays and Loops – Part 2	
	Wednesday	18-Oct	Lecture 9. Common Loop Algorithms (Ch 6.1)	R9, W8.1, 8.2, 8.4, 9.1, D9		
8	Monday	23-Oct	Lecture 10. One-Dimensional Arrays (Ch 6.2, 6.3)	R10, W9.2, D10	Arrays and Loops – Part 3	
	Wednesday	25-Oct	Lecture 11. Common Array Algorithms (Ch 6.7)	R11, W9.4, D11		
9	Monday	30-Oct	Lecture 12. Two-Dimensional Arrays	R12, W10.1, D12		

			(Ch 6.7, 6.8)		Practice Practicum
	Wednesday	1-Nov	Lecture 13. Common 2D Array Algorithms (Ch 6.7, 6.8)	R13, W10.2, D13	
	Sunday	5-Nov			
10	Monday	6-Nov	TEST 2/Practicum 2 Review. Will cover Ch 4 and 6.		
	Tuesday	7-Nov	TEST 2/Practicum 2.		Arrays and Loops – Part 4
	Wednesday	8-Nov	Lecture 14. Methods: Introduction (Ch 5.1, 5.2, 5.3, 5.4, 5.5, 5.6, 5.8)	R14, W10.3, 11.2, D14	
	Friday	17-Nov			Assignment 2
WINTER BREAK – Nov. 13 - 17th					
11	Monday	20-Nov	Module 2 Feedback and Q & A		
	Wednesday	22-Nov	Lecture 15. Stepwise Refinement of Methods Part 1 (Ch 6.4, 6.7)	R15, W11.3, 11.4, D15	Methods
12	Monday	27-Nov	Lecture 16. Methods: Using arrays with methods (Ch 8.1, 8.2)	R16, W10.4, D16	Practice Practicum
	Wednesday	29-Nov	Lecture 17. Stepwise Refinement of Methods Part 2 (Ch 6.4, 6.7)	R17, W12.1, D17	
13	Monday	4-Dec	Lecture 18. Objects: Introduction (Ch 8.3, 8.4, 8.5, 8.6) & TEST 3/Practicum 3 Review. Will cover Ch 1-6.		
	Tuesday	5-Dec	TEST 3/Practicum 3.		
	Wednesday	6-Dec	Module 3 Feedback and Q & A		
	Friday	15-Dec			Assignment 3

Lab Section and TA Office Hour Schedule

Lab Sections

Day	Time	Section	Room No	TA
Monday	0835-0955	B01	Studley GOLDBERG COMPUTER SCIENCE BLDG 143	Maddie, Ruiqi, Ella
Wednesday	1135-1255	B02	Studley GOLDBERG COMPUTER SCIENCE BLDG 143	Isabella, Ian, Aditya
Thursday	1435-1555	B03	Studley GOLDBERG COMPUTER SCIENCE BLDG 134	Sigma, Andrew, David
Wednesday	1435-1555	B04	Studley GOLDBERG COMPUTER SCIENCE BLDG 143	Ty, Tanisha
Friday	1605-1725	B05	Studley GOLDBERG COMPUTER SCIENCE BLDG 134	Seif, Christopher, Maddie
Tuesday	1435-1555	B06	Studley GOLDBERG COMPUTER SCIENCE BLDG 134	Nour, Ruiqi
Thursday	1135-1255	B07	Studley MONA CAMPBELL BUILDING 1201	Seif, David, Kate
Tuesday	1435-1555	B08	Studley MONA CAMPBELL BUILDING 1201	Sigma, Aditya, Kate
Monday	1605-1725	B09	Studley MONA CAMPBELL BUILDING 1201	Dhruv, Nour
Tuesday	1435-1555	B10	Studley GOLDBERG COMPUTER SCIENCE BLDG 143	Lauren, Tanisha, Carson

Note: All laboratory activities are held in-person and will not be recorded. Code reading and writing exercises are made available in Brightspace. Please consult Dal Online to determine which section you are currently registered to attend the proper lab. Due to space limitations, switching lab sections is not permitted. You may request permission to change your registered lab section from undergrad@cs.dal.ca.

Office Hours

Day	Time	Format	TA
Tuesday	1730-1900	Virtual	Nour
Thursday	1900-2030	Virtual	Seif
Saturday	1000-1130	Virtual	Manar
Saturday	1000-1130	Virtual	Manar, Sigma
TBD	TBD	In-Person	Maddie, Lauren
Tuesday	1000-1130	In-Person	Tanisha
Wednesday	1600-1730	In-Person	Ty
Thursday	1300-1430	In-Person	David
Friday	1100-1230	In-Person	Ty

Note. All in-person office hours are held at the Learning Centre in room 211 of the Goldberg Computer Science Building. All virtual office hours will be held via Teams – a link to the virtual room will be posted in the channel.