

# Course Syllabus



## Hello!

Welcome to CSC110! This course and its follow-up course CSC111 serve as a first-year introduction to the rich and wonderful field of computer science. In this course, you'll learn key programming and theoretical foundations of computer science, and get a taste of how they can be applied to many different areas of computer science, and society at large. We hope you have a great time in CSC110 and CSC111 this year, and are very much looking forward to teaching you!

The material posted on Quercus is required reading. It contains important information: assignment handouts, the policy on missed work, links to all course tools, the announcements page, and more.

Please read through this course syllabus carefully to familiarize yourself with the content, logistics, and policies of CSC110.

All course announcements will be made on Quercus on the [Announcements \(https://q.utoronto.ca/courses/394498/announcements\)](https://q.utoronto.ca/courses/394498/announcements) page. You are responsible for reading all course announcements.

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## What is this course about?

An introduction to the field of computer science combining the tools and techniques of programming (using the Python programming language) with rigorous mathematical analysis and reasoning. Topics include: data representations; program control flow (conditionals, loops, exceptions, functions); mathematical logic and formal proof; algorithms and running time analysis; software engineering principles (formal specification and design, testing and verification). Prior programming experience is not required to succeed in this course.

This course is restricted to students in the first year Computer Science admission category, and is only offered in the Fall term. Other students planning to pursue studies in computer science should enrol in CSC108H1, CSC148H1, and CSC165H1/CSC240H1.

## Learning outcomes

In this course, you learn to:

1. Analyze a problem domain written in English; represent key definitions and properties using mathematical logic; and design, implement, and evaluate computational solutions to solve a

problem.

2. Understand and write programs using standard features of the Python programming language.
3. Understand and use a variety of professional software development skills, including: programming using an Integrated Development Environment (IDE); writing clear documentation; debugging and testing programs; reading technical documentation and source code to learn how to use an external program or library.
4. Analyze the running time of a program.
5. Define and implement common abstract data types and algorithms.
6. Create a mathematical proof or disproof of a given statement in new and familiar domains, choosing from among different proof techniques to use. Apply proofs of mathematical statements to justify the correctness of algorithms.

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## What is on this page

There is quite a lot of information on this page, and we get it, reading this much at once can be hard! So, we are splitting it up for you in multiple sections:

- [About the teaching team \(https://q.utoronto.ca/courses/394498/assignments/syllabus/#team\)](https://q.utoronto.ca/courses/394498/assignments/syllabus/#team)
- [Contact Information \(https://q.utoronto.ca/courses/394498/assignments/syllabus/#contact\)](https://q.utoronto.ca/courses/394498/assignments/syllabus/#contact)
- [Lectures \(https://q.utoronto.ca/courses/394498/assignments/syllabus/#lectures\)](https://q.utoronto.ca/courses/394498/assignments/syllabus/#lectures)
- [Office Hours \(https://q.utoronto.ca/courses/394498/assignments/syllabus/#oh\)](https://q.utoronto.ca/courses/394498/assignments/syllabus/#oh)
- [Assessments \(https://q.utoronto.ca/courses/394498/assignments/syllabus/#assessments\)](https://q.utoronto.ca/courses/394498/assignments/syllabus/#assessments)
  - [Checkpoint Quizzes \(during tutorials\) \(https://q.utoronto.ca/courses/394498/assignments/syllabus/#checkpoints\)](https://q.utoronto.ca/courses/394498/assignments/syllabus/#checkpoints)
  - [Assignments \(https://q.utoronto.ca/courses/394498/assignments/syllabus/#assigns\)](https://q.utoronto.ca/courses/394498/assignments/syllabus/#assigns)
  - [Tests and Exam \(https://q.utoronto.ca/courses/394498/assignments/syllabus/#tests\)](https://q.utoronto.ca/courses/394498/assignments/syllabus/#tests)
  - [Practice Problems \(https://q.utoronto.ca/courses/394498/assignments/syllabus/#practice\)](https://q.utoronto.ca/courses/394498/assignments/syllabus/#practice)
- [Technology requirements \(https://q.utoronto.ca/courses/394498/assignments/syllabus/#technology-requirements\)](https://q.utoronto.ca/courses/394498/assignments/syllabus/#technology-requirements) [\\_ \(https://q.utoronto.ca/courses/394498/assignments/syllabus/#technology-requirements\)](https://q.utoronto.ca/courses/394498/assignments/syllabus/#technology-requirements)
- [Textbooks and resources \(https://q.utoronto.ca/courses/394498/assignments/syllabus/#textbooks-and-resources\)](https://q.utoronto.ca/courses/394498/assignments/syllabus/#textbooks-and-resources)
- [Accommodations and accessibility services \(https://q.utoronto.ca/courses/394498/assignments/syllabus/#accommodations-and-accessibility-services\)](https://q.utoronto.ca/courses/394498/assignments/syllabus/#accommodations-and-accessibility-services)
- [Mental Health and wellness \(https://q.utoronto.ca/courses/394498/assignments/syllabus/#mental-wellness\)](https://q.utoronto.ca/courses/394498/assignments/syllabus/#mental-wellness)
- [Special consideration for term tests \(https://q.utoronto.ca/courses/394498/assignments/syllabus/#special\)](https://q.utoronto.ca/courses/394498/assignments/syllabus/#special) [\\_ \(https://q.utoronto.ca/courses/394498/assignments/syllabus/#special\)](https://q.utoronto.ca/courses/394498/assignments/syllabus/#special)
- [Remark requests \(https://q.utoronto.ca/courses/394498/assignments/syllabus/#remark-](https://q.utoronto.ca/courses/394498/assignments/syllabus/#remark-)

[requests\)](#)

- [CSC110 Community Code of Conduct \(https://q.utoronto.ca/courses/394498/assignments/syllabus/#csc110-community-code-of-conduct\)](https://q.utoronto.ca/courses/394498/assignments/syllabus/#csc110-community-code-of-conduct)
- [\(https://q.utoronto.ca/courses/394498/assignments/syllabus/#assigns\)](https://q.utoronto.ca/courses/394498/assignments/syllabus/#assigns) [Copyright notice \(https://q.utoronto.ca/courses/394498/assignments/syllabus/#copyright-notice\)](https://q.utoronto.ca/courses/394498/assignments/syllabus/#copyright-notice)
- [Switching to CSC108 \(https://q.utoronto.ca/courses/394498/assignments/syllabus/#switching-into-csc108\)](https://q.utoronto.ca/courses/394498/assignments/syllabus/#switching-into-csc108)

We also highlighted key parts throughout.

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## CSC110 Teaching Team

Paul He, LEC0201 and course coordinator



Hello and welcome CMP1 students! I'm Paul, an Assistant Professor, Teaching Stream. Before coming to U of T, I did my PhD at the University of Pennsylvania, where I worked in the area of programming language theory and learned that I love teaching. Before that, I did my bachelor's at the University of Waterloo in CS, and before that, I grew up here in Toronto. This year, in addition to teaching CSC110 and CSC111, I'll also be the CMP1 Faculty Advisor, which means I'll be available if you want to talk about your first-year experience—all aspects of your experience, not just academics. Outside of work, I like rock climbing and exploring the city on my bike. I look forward to seeing you on campus!

Mario Badr, LEC0101



Welcome to the University of Toronto! You can call me Mario and I've been a part of the University of Toronto in one role or another for 2 decades! Starting as an undergraduate student in computer engineering, I eventually completed my master's and PhD in a sub-field of computers called computer architecture. As a faculty member, I've taught a variety of courses in computer systems and first year. So, I hope to see you not only this term but again and again throughout your undergraduate career. Outside of work, my hobbies include cooking and learning more about this thing called parenting. Looking forward to meeting you all!

Other than your instructors, you may also hear from our administrative support Angela Hicks, our head TA Tara Saba, our MarkUs and auto-testing administrator Sophia Hyunh, our CMP1 department advisor Amna Adnan, or your classroom and tutorial TAs who you will be seeing regularly throughout the course. :)


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## How to get in touch with us

### What not to do

Do **NOT** use Quercus messaging for anything related to CSC110. Your message will likely not be received. Do **not** send emails to course instructor's personal email addresses either, where they are likely to get lost in our usually flooded inboxes. Instead you can do any of the below, depending on your situation:

### For personal issues/emergencies

To contact the course instructors regarding personal issues and emergencies, please post a private post on our [Ed discussion board](https://edstem.org/us/join/EfuuHH)  (<https://edstem.org/us/join/EfuuHH>). Private posts should be reserved for personal questions (making appointments, remarking requests, missing class, etc.).


Otherwise, please post publicly (you can make yourself anonymous to your peers on a public post, if you would like) so that the rest of the class can benefit from the discussion as well.

If you do not feel comfortable with Ed or for more routine administrative matters (e.g. accommodations letters, absence declarations), you can also get in touch via this email address: [csc110-2025-09@cs.toronto.edu](mailto:csc110-2025-09@cs.toronto.edu) (<mailto:csc110-2025-09@cs.toronto.edu>). Sign your email with your full name, student number, and UTORid.

We will try to respond to email by the end of the next business day. However, it may take longer, especially near due dates. If you do not hear back after a few days, please do not hesitate to send a follow-up email.

**Tip:** sometimes students may be nervous about emailing a professor for the first time. We've prepared an [advice page](https://q.utoronto.ca/courses/394498/pages/emailing-your-professors) (<https://q.utoronto.ca/courses/394498/pages/emailing-your-professors>) on emailing your professors that you might want to check out!

## General course-related questions

For general course-related questions such as clarifying a concept, asking about an assignment, etc., please always use [Ed Discussion](https://edstem.org/us/join/EfuuHH)  (<https://edstem.org/us/join/EfuuHH>) instead of email. This is our course online discussion forum and chatroom. Please post all of your questions about the course material and assignments on Ed so that everyone can benefit from your questions. We will monitor the discussion board regularly, but please answer questions from other students—helping someone else learn is one of the most effective ways of truly mastering a subject.

## General questions, personal questions, and sometimes just to chat

Last but not least, come see us during our weekly office hours—more on that below! You can come in on a drop-in basis with any general course-related questions (or—during less busy weeks—even just to chat).

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## Lectures

The first lecture is on Tuesday, September 2. All lectures start at "U of T time", which is 10 minutes past the hour, and end on the hour. This allows for 10 minutes of travel/break time if you have back-to-back classes.

Lectures	LEC0101	LEC0201
Meeting Time and Location	Mondays 11:10am - 1:00pm (Location: <a href="https://map.utoronto.ca/?id=1809#!">MY 150</a> ( <a href="https://map.utoronto.ca/?id=1809#!">https://map.utoronto.ca/?id=1809#!</a> ))	Mondays 11:10am - 1:00pm (Location: <a href="https://map.utoronto.ca/?id=1809#!">MY 150</a> ( <a href="https://map.utoronto.ca/?id=1809#!">https://map.utoronto.ca/?id=1809#!</a> ))

	<a href="#">m/982047).</a>  Tuesdays & Thursdays 9:10am - 11:00am (Location: <a href="#">WB 116 (https://map.utoronto.ca/?id=1809#!m/494460).</a> )	<a href="#">m/982047).</a>  Tuesdays & Thursdays 3:10pm - 5:00pm (Location: <a href="#">HS 610 (https://map.utoronto.ca/?id=1809#!m/494459).</a> )
<b>Instructor</b>	Mario Badr	Paul He

Note: On Mondays, both lecture sections will be combined into a single room, MY 150. This will let you get to meet and interact with students across lecture sections, and allow us to run events for the entire first-year computer science cohort.

Our lectures will alternate between instructors presenting new concepts and you actively engaging with course material through problem-solving exercises. Attendance in lecture is not graded, but is considered a mandatory part of the course.

## Lecture recordings


Most lecture sessions will be recorded using the University of Toronto's Opencast Content Capture Pilot, which automatically records lectures and posts them on the [OCCS Student App \(https://q.utoronto.ca/courses/394498/external\\_tools/11190\)](https://q.utoronto.ca/courses/394498/external_tools/11190) in the Quercus sidebar. However, because of the amount of active learning that will take place during lecture, please note that simply watching these videos is not a substitute for attending class! Our recommendation is to use these recordings for review purposes only, or if you miss a lecture due to extenuating circumstances. If you did miss the lecture, we strongly recommend working through the in-class exercises (which are posted separately on Quercus) when we reach those points in the lecture, so that your experience is as close to the live classroom experience as possible. These recordings are meant for your personal learning, and you may not distribute these recordings or make your own (please see the copyright notice below).

## Office hours

Each week, your instructors will hold drop-in office hours that provide an informal setting for students to drop in and ask questions or just chat about the course material (or, during less busy weeks, we can just chat about cats, board games, and other good things in life). You are welcome to attend any of the scheduled office hours (even just to say hi!).

The regular schedule is in the table below. During busier times within the semester, we will announce additional TA and instructor office hours as well.

Instructor	Paul He (Course Coordinator)	Mario Badr
Office Hours	<p>Mon 2:00pm - 3:00pm (private office hours by appointment, see below)</p> <p>Wed 4:00pm - 5:00pm (group office hours in <a href="https://map.utoronto.ca/?id=1809#!m/494470?s/_.">BA 4290 (https://map.utoronto.ca/?id=1809#!m/494470?s/_.)</a>)</p> <p>Fri 3:00pm - 4:00pm (group office hours in <a href="https://map.utoronto.ca/?id=1809#!m/494470?s/_.">BA 4290 (https://map.utoronto.ca/?id=1809#!m/494470?s/_.)</a>)</p>	<p>Tue 1:00pm - 2:00pm (group office hours in <a href="https://map.utoronto.ca/?id=1809#!m/494470?s/_.">BA 4290 (https://map.utoronto.ca/?id=1809#!m/494470?s/_.)</a>)</p> <p>Thu 1:00pm - 2:00pm (group office hours in <a href="https://map.utoronto.ca/?id=1809#!m/494470?s/_.">BA 4290 (https://map.utoronto.ca/?id=1809#!m/494470?s/_.)</a>)</p>

Private one-on-one appointment times to discuss personal matters with Paul will be available on most Mondays. Please see this booking link ([Book time with Paul He: CSC110 Private Office Hours](https://outlook.office.com/bookwithme/user/efd98117f04243fead2b443724192621@utoronto.ca/meetingtype/fLJBEIVnO0aA7dtFn9-wAg2?bookingcode=a2ba3c2f-3cb9-4a80-abe3-16363cc88cd4&anonymous&ismsaljsauthenabed&ep=mcad)  (<https://outlook.office.com/bookwithme/user/efd98117f04243fead2b443724192621@utoronto.ca/meetingtype/fLJBEIVnO0aA7dtFn9-wAg2?bookingcode=a2ba3c2f-3cb9-4a80-abe3-16363cc88cd4&anonymous&ismsaljsauthenabed&ep=mcad>), slots open up 1 week ahead of time) for exact dates and to sign up for an appointment.

Our office hours are student-driven, meaning teaching team members won't have any material prepared. Instead, the discussion will be based on whatever questions you'd like to ask. Most office hours are also group-based, meaning we generally stick to questions that aren't specific to any particular student, but rather to course concepts and answers that every student can benefit from.

If you have a personal matter to discuss, you may book an appointment for Paul's Monday office hours or bring it up privately to an instructor during the group office hour. If you have such a matter to discuss but none of the available times work for you, feel free to contact us to request an appointment (let us know your availability for the week within the email, being as flexible as possible).

## Assessments

Note: All quizzes, tests and exam will be held in-person on campus, with no exceptions.

The following table summarizes the course assessments:

Assessment	Percent	Details	Due Date
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Checkpoint quizzes	18%	9 chapter quizzes during tutorials. 2% for each quiz. More information below.	All quizzes take place during <b>your registered tutorial session</b> on Wednesdays. Tutorials begin from Week 2.
Assignments (+ Assignment Quizzes)	18%	<p>Assignment 1: 3% + assignment quiz: 4%</p> <p>Assignment 2: 3% + assignment quiz: 4%</p> <p>Assignment 3: 4% (no assignment quiz)</p>	<p>Assignment 1: Fri Sept 26</p> <p>Assignment 1 quiz: Mon Oct 6 11:15am - 12:00pm (during lecture)</p> <p>Assignment 2: Fri Oct 24</p> <p>Assignment 2 quiz: Wed Nov 5, in the first hour of your registered tutorial section</p> <p>Assignment 3: Fri Nov 28</p>
Term Tests	25%	<p>Term test 1: 5%</p> <p>Term tests 2 and 3: 10% each</p>	<p>Test 1: Monday Sept 29, during your lecture session</p> <p>Test 2: Monday Oct 20, during your lecture session</p> <p>Test 3: Monday Nov 24, during your lecture session</p>
Feedback Surveys	2%	2 feedback surveys: 1% each	To be announced during the term
In-Person Final Exam	37%	You must receive a grade of at least <b>40%</b> on the final exam to pass CSC110. Students who do not meet this	Final Exam Period—will be announced by the Faculty of A&S later in the semester



		threshold (including students who do not write the final exam) will have their course grade lowered to no more than 48.	
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## Checkpoint Quizzes—Wednesday Tutorials (18%)

Throughout the term, you will have several checkpoint quizzes.

These quizzes will offer consistent feedback on your progress and understanding of the course material. They will help you gauge your readiness for larger assessments such as midterms and the final exam, and identify any gaps in your understanding of core course concepts so you can address them early on.

These checkpoint quizzes will take place during your tutorial sessions, which means attending your registered tutorial session is mandatory.

**NO TUTORIAL QUIZZES DURING THE FIRST WEEK OF CLASS.** The first tutorial quiz is Wednesday, September 10. Like lectures, all tutorials start at "U of T time", which is 10 minutes past the hour.

### Quiz Format and Grading

Depending on each week's course material the quiz will either be a coding quiz on the computer lab computers, or a written quiz on paper. The marking scheme will differ for the two formats. Each chapter's quiz is worth 2% of your course grade. This means the checkpoint quizzes are worth a total of 18% of your course grade.

Paper quizzes are graded based on "competency" rather than "mastery." Scoring a 75% or higher on the paper quiz will count as "passing the checkpoint" and give you the full 2% for that quiz. Lower marks will give you the corresponding proportional mark (e.g. getting 50% will give you 1/2).

Coding quizzes are graded as pass/fail (i.e. only 2% or 0%). To pass, your code must pass **all** the automated tests. You will have the opportunity to run the test suite and see results during the quiz, so you can revise your code and resubmit.

If you do not get the full 2%, opportunities for retakes will be available (see more below).

### Quiz Retakes

We recognize that you are all complex human beings, with complex lives. Not everyone is starting off

with the same CS knowledge, and not everyone will learn at the same pace, and that's perfectly okay! We don't want to pressure you with these quizzes—rather, they should be a way for you to evaluate your own understanding and progress throughout the course.

With this in mind, you will be provided several opportunities to prove your competency of each chapter's material.

Firstly, if you do not "pass" (get full marks on) a checkpoint quiz, you will be given an opportunity to re-attempt a different quiz testing the same concepts during the next week's tutorial session.

### **Third Attempts**

If you do not pass the checkpoint after both the first and second attempt, a third attempt will be available in a different format—a verbal interview with one of the course staff. We will email you an invitation for a one-on-one meeting to discuss the chapter's core concepts and ask you questions verbally. Based on your performance during the interview, we will provide advice and guidance to help you pass the checkpoint and address any misconceptions with the chapter material. Part marks will be possible during the third attempts, even for coding quizzes.

### **Academic Integrity**

Tutorials take place throughout the day. If you complete the quiz earlier in the day, please refrain from sharing any questions or solutions publicly (e.g., do not post on Ed) or discussing it with your classmates until everyone has finished writing the quiz, at 7pm. It is an **academic offence to share questions or answers before the quiz day is over**. This ensures that all students have a fair chance to assess their own understanding independently, which is the primary purpose of these quizzes. Knowing the answers beforehand will not provide you with the valuable feedback needed to best prepare for the term tests and final exam.

### **Assignments (18%)**

Assignments are larger pieces of work that span multiple course topics, and require you to apply and synthesize your knowledge and skills from multiple areas in computer science. They are a mixture of written tasks and programming tasks, and will be graded for both correctness and clarity of communication. Assignments will be posted online, and will be submitted to the MarkUs application. Assignments must be completed individually.

The first two assignment will be accompanied by an in-person quiz which tests your understanding of the assignment content.

### **Assignments: Late Policy**

There is a one-hour grace period after an assignment deadline, during which no penalty will be applied. Assignments submitted after this one-hour grace period, even by one second, are late and

will be accepted only under the policy on special consideration and accommodations below.

## Assignments: Special Consideration and Accommodations Policy

We recognize that unexpected problems, illness and disability-related barriers sometimes make it difficult to submit assignments on time. (Note: Remember to value both your physical and mental health! We recognize that feeling emotionally unwell can be just as debilitating toward getting coursework completed on time.) So, we are adopting a policy aiming to be as flexible as possible for a course of this size: You may request an extension of **up to one week** for one or more of the major assignment submissions by completing this form (link TBA).

When an extension is requested under this policy:

- the extension begins from the original assignment due date and time
- the deadline is typically updated on MarkUs within about an hour
- the maximum extension that allowed is one week. Any assignments submitted beyond the one week extension and the one-hour grace period (even 1 second beyond) will not be graded.

Do not use this policy to simply shift the original deadline. If you ask for an extension because you need more time and then during the extension period you become ill or face another challenge that impacts your ability to complete the assignment, you will not be granted any additional extensions beyond the 7 day maximum. Extensions beyond 7 days will only be considered, if the reason for the request began before the original assignment deadline, persisted during the entire extension period, and continued beyond the extended deadline. In that case, you should contact the course email address.

## Term Tests (25%) and Final Exam (37%)

Tests are used to evaluate your learning in a focused setting periodically throughout the semester (term tests) and at the end of the course (final exam). Each term test will take place in-person, during a Monday lecture time, replacing the regular lecture.

**IMPORTANT NOTE:** You must receive a grade of at least **40%** on the final exam to pass CSC110. Students who do not meet this threshold (including students who do not write the final exam) will have their course grade lowered to no more than 48.

## Practice Problems

Aside from the graded assessments mentioned above, we will also be posting several practice problems throughout the term to help you evaluate your understanding and build your skills. Preparation exercises will be posted prior to each week and consist of a few readings from the [CSC110/111 Course Notes](https://www.teach.cs.toronto.edu/~csc110y/fall/notes/), a short comprehension quiz on Quercus, and some programming exercises that you will download and

submit to using the online MarkUs application. We have designed these preps to help you stay on track and learn simpler concepts independently so that we can focus on more complex content and skills in lecture and tutorial.

At the end of most weeks, we will post larger programming exercises that you can use to reinforce and extend your learning from lecture that week. We have designed these exercises to not simply be a repeat of work you did in lecture, but to give you different kinds of opportunities to problem-solve and practice what you've learned.

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## Technology Requirements

To participate in this course, you must have reliable access to a personal computer to complete course work. A desktop computer or laptop is required; other computing devices, such as Chromebooks, tablets, and smartphones, are NOT sufficient to run the software required for this course.

We recommend bringing a laptop to lectures, so that you can experiment with and complete various programming-related exercises. However, if you do not have access to a laptop you will still be able to participate and complete almost every exercise on paper, though you will be responsible for printing out exercise handouts and bringing them to class. (See below for information about accessing our department's on-campus computer labs.)

## Software Setup


You need to complete the [CSC110 Software Installation Guide \(https://q.utoronto.ca/courses/407301/pages/computer-fundamentals\)](https://q.utoronto.ca/courses/407301/pages/computer-fundamentals) on your personal computer to make sure you have all the required software for this course. Note: we are using PyCharm to display, write, and run Python programs in this course. While we are not grading your use of PyCharm, if you choose to use a different program for Python programming, it will be your responsibility to translate instructions we give for using PyCharm, and your instructors and TAs may be unable to assist you. It is **highly recommended** to use PyCharm for this course, even if you have previously used different software before.

## The Department of Computer Science Teaching Labs




As first-year computer science students, you have access to our department's Teaching Lab rooms, located in the Bahen Centre, 40 St. George Street. These lab rooms are a popular study and work location for CS students, have both computers and printers that you can access, and will be the same setting that you write your checkpoint quizzes in. For more information about the teaching labs, please check out [the CS Teaching Lab website ↗\(https://www.teach.cs.toronto.edu/resources/introduction-for-new-students-using-the-teach-cs-labs/\)](https://www.teach.cs.toronto.edu/resources/introduction-for-new-students-using-the-teach-cs-labs/).

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# Textbooks and Resources

There is no required textbook for this course. We'll be making use of a set of Course Notes that we have prepared for CSC110/CSC111, available for free online at <https://www.teach.cs.toronto.edu/~csc110y/fall/notes>  (<https://www.teach.cs.toronto.edu/~csc110y/fall/notes>). Roughly half of these chapters will be assigned as prep throughout this term, and these are all required readings for the course.

Here are a few supplementary books and resources that you may find useful for this course:

- [Practical Programming](https://pragprog.com/titles/gwpy3/practical-programming-third-edition/)  (<https://pragprog.com/titles/gwpy3/practical-programming-third-edition/>) by Paul Gries, Jennifer Campbell, and Jason Montojo.
- [How to Think Like a Computer Scientist](https://www.openbookproject.net/thinkcs/python/english3e/)  (<https://www.openbookproject.net/thinkcs/python/english3e/>) by Peter Wentworth, Jeffrey Elkner, Allen B. Downey, and Chris Meyers.
- [How to Prove It](https://librarysearch.library.utoronto.ca/discovery/search?query=any,contains,how%20to%20prove%20it%20daniel%20velleman&tab=Everything&sea) (<https://librarysearch.library.utoronto.ca/discovery/search?query=any,contains,how%20to%20prove%20it%20daniel%20velleman&tab=Everything&sea>) by Daniel J. Velleman.
- [Discrete Mathematics: An Open Introduction](https://discrete.openmathbooks.org/dmoi3.html)  (<https://discrete.openmathbooks.org/dmoi3.html>) by Oscar Levin.

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# Accommodations and Accessibility Services

## Accessibility Services

Students with diverse learning styles and needs are welcome in this course. The Accessibility Services staff are available by appointment to assess specific needs, provide referrals, and arrange appropriate accommodations. The sooner you let them and us know your needs, the quicker we can assist you in achieving your learning goals in this course. For more information on services and resources available to students, including registering for accommodations, please see the U of T Accessibility Services website: <https://www.studentlife.utoronto.ca/as> (<https://www.studentlife.utoronto.ca/as>).

if you have a disability or health consideration that may require accommodations, please visit <http://www.accessibility.utoronto.ca> (<http://www.accessibility.utoronto.ca>) as soon as possible.


## Religious Accommodations

As a student at the University of Toronto, you are part of a diverse community that welcomes and includes students and faculty from a wide range of cultural and religious traditions. For our part, we


will make every reasonable effort to avoid scheduling tests, examinations, or other compulsory activities on religious holy days not captured by statutory holidays. Further to University Policy, if you anticipate being absent from class or missing a major course activity (such as a test or in-class assignment) due to a religious observance, please let us know as early in the course as possible, and with sufficient notice (at least two to three weeks), so that we can work together to make alternate arrangements.

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## Mental Health and Wellness

Your mental health is important. Throughout university life, there are many experiences that can impact your mental health and well-being. As a University of Toronto student, you can access free mental health and wellbeing services at Health & Wellness (<https://studentlife.utoronto.ca/departments/health-wellness/>) such as same day counselling, brief counselling, medical care, skill-building workshops, and drop-in peer support. You can also meet with a Wellness Navigation Advisor who can connect you with other campus and community services and support. Call the mental health clinic at 416-978-8030 ext. 5 to book an appointment or visit <https://uoft.me/mentalhealthcare>  (<https://uoft.me/mentalhealthcare>) to learn about the services available to you.

You can also visit your College Registrar to learn about the resources and supports available: <https://www.artsci.utoronto.ca/current/academic-advising-and-support/college-registrars-offices> (<https://www.artsci.utoronto.ca/current/academic-advising-and-support/college-registrars-offices>)

If you're in distress, you can access immediate support: <https://uoft.me/feelingdistressed>  (<https://uoft.me/feelingdistressed>)

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## Special Consideration

Students experiencing illness or other emergencies that prevent them from being able to complete homework on time or write a term test or quiz can request special consideration. To do so, complete the Special Consideration Request Form (link TBA). You will receive an email response to your request within 1-2 business days.

**If you miss two or more tests and are requesting special consideration**, we **require** that you make an appointment with our department's Learning Strategist, to put in place a concrete plan for the rest of the term, *before* we will approve any exception. This ensures that you are realistic about your ability to succeed in the course and that you have thought about how you will manage the risk: after all, missing two or more tests puts you in a situation where you would be taking the final exam with little feedback on your performance on more than half of the material in the course. *We will*

*require confirmation from our Learning Strategist* that you have met with them and that your approach to the rest of the term is realistic. This ensures that you make decisions based on concrete plans that are likely to lead to success, not based on need alone, or on “magical thinking” that everything will just work out fine.

IMPORTANT: Submit your request soon as possible if you find yourself in such a situation. It is easier to resolve situations earlier rather than later. If your emergency will affect your ability to complete coursework for more than a few days, or in multiple courses, we recommend you also talk to your registrar. You should also complete the absence declaration form on ACORN.

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## Special Consideration for Other Homework

The flexible extension policy for assignment deadlines should cover all illness, disability-related barriers, and other special considerations for Assignments. A student who has been ill for the entire 7 days between the assignment deadline and the extension date, may contact us through the course email address ([csc110-2025-09@cs.toronto.edu](mailto:csc110-2025-09@cs.toronto.edu) (<mailto:csc110-2025-09@cs.toronto.edu>)).

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## Remark Requests

Mistakes sometimes happen when marking. If you feel there is an issue with the marking of an assignment or test, you may request that it be remarked.

For assignments: request a remark on MarkUs for the assignment you feel there was a mistake in marking for. You must give a specific reason for the request, referring to a possible error or omission by the marker. Remark requests without a specific reason will not be accepted.

For tests: please see the announcement about the test result availability for details once test marks are released. Like for assignments, you must give a specific reason for the request, referring to a possible error or omission by the marker. Remark requests without a specific reason will not be accepted.

For prompt turnaround, remark requests must be received within one week of when the item was returned.

Please note that when we receive a remark request, we may regrade the entire submission, not just a specific question. Your mark may go up or down as a result of the remark.

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## CSC110 Community Code of Conduct



[This section is based in part on the [Community Covenant](https://www.contributor-covenant.org/)  (<https://www.contributor-covenant.org/>).]

All members of the course staff and all students are part of the same CSC110 community, and we share the common goal of creating a safe and positive learning environment for every student. Each of us is responsible for creating this environment, and must follow the guidelines below when participating in this course.

1. *Use welcoming and inclusive language. Show empathy towards other community members.*

Call people by their preferred names and pronouns. Do not make offensive comments about an individual or group (e.g., gender, sexual orientation, disability and mental illness, or race). Avoid humour or sarcastic remarks based on such comments or stereotypes.

2. *Be respectful of differing viewpoints and experiences. Gracefully give and accept constructive criticism.*

Look for (and reflect on) ideas and perspectives that are different than your own. Make a genuine effort to thank those who share them. It is natural to disagree with something a member of our community has written, and you are permitted to voice your disagreement. However, when doing so take the following into consideration: try to understand where the other person might be coming from; do not assume the other person's motives or draw inferences from their identity; be polite in your response and state where you agree.

3. *Be professional in your conversations.*

While conversations about topics unrelated to CSC110 or even the University of Toronto are certainly permitted (and encouraged), keep these conversations professional as you would in the workplace. Do not share sexual or violent content and avoid profanity.

4. *Respect the personal boundaries of each community member.*

While we encourage you to make use of this course's online platforms to meet each other to form academic and social connections, no one is obligated to do so. Everyone will have different boundaries and comfort levels that may change over time and depending on the situation. When in doubt, ask. If someone has asked you to respect one of their boundaries (e.g., not to contact them), with or without a reason, please respect their wishes. Do not reveal any person's personal information or private communications to a third person (or publicly) without receiving their explicit consent.

If you experience a violation of this code of conduct in a CSC110 space, or witness such a violation (even if it is not directed at you), or have any other concerns, please contact the course staff at [csc110-2025-09@cs.toronto.edu](mailto:csc110-2025-09@cs.toronto.edu) (<mailto:csc110-2025-09@cs.toronto.edu>). We will respond to you in a timely manner and everything you say will be confidential.

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## Copyright notice

Course materials prepared by the instructor are considered by the University to be an instructor's intellectual property covered by the Copyright Act, RSC 1985, c C-42. These materials are made available to you for your personal use, and cannot be shared outside of the class or published (made publicly available) in any way. Posting course materials or any recordings you may make to other websites without the express permission of the instructor will constitute copyright infringement.

This notice applies to all course materials, including (but not limited to): course notes, lecture slides, lecture recordings, lecture and tutorial handouts, sample solutions, and assessment handouts, starter code, and solutions.



## Lecture and tutorial recordings

You may not make your own recordings of video, audio, or text chat, of lectures or tutorials.

## Your course work

Work that you complete for CSC110 (including exercises, assignments, and tests) may not be shared with other students or publicly published. This policy is to both protect the intellectual property of course staff (including, for example, the design and starter files for assignments), and to protect you from committing acts of academic dishonesty. For more information on this topic, see the

[Department of Computer Science website](https://web.cs.toronto.edu/undergraduate/portfolio-advice/)  [\(https://web.cs.toronto.edu/undergraduate/portfolio-advice/\)](https://web.cs.toronto.edu/undergraduate/portfolio-advice/).

However, it should be noted that you are allowed to use GitHub's private (not public!) repositories to store your own work. [GitHub](https://github.com/)  [\(https://github.com/\)](https://github.com/) is a popular option for computer science students and professionals to both collaborate in teams and publish their work online, including to develop a portfolio for potential employers. (See [GitHub's instructions for creating a repository](https://docs.github.com/en/repositories/creating-and-managing-repositories/quickstart-for-repositories)   [\(https://docs.github.com/en/repositories/creating-and-managing-repositories/quickstart-for-repositories\)](https://docs.github.com/en/repositories/creating-and-managing-repositories/quickstart-for-repositories) and select "Private" in Step 4.)

## Academic Integrity

All suspected cases of academic dishonesty will be investigated following procedures outlined in the [Code of Behaviour on Academic Matters](https://governingcouncil.utoronto.ca/secretariat/policies/code-behaviour-academic-matters-july-1-2025) [\(https://governingcouncil.utoronto.ca/secretariat/policies/code-behaviour-academic-matters-july-1-2025\)](https://governingcouncil.utoronto.ca/secretariat/policies/code-behaviour-academic-matters-july-1-2025). If you have questions or concerns about what constitutes appropriate academic behaviour or appropriate research and citation methods, please reach out to the course coordinator.

Note that you are expected to seek out additional information on academic integrity from your instructors or from other institutional resources. For example, to learn more about how to cite and use source material appropriately and for other writing support, see the U of T writing support website at <http://www.writing.utoronto.ca> [\(http://www.writing.utoronto.ca\)](http://www.writing.utoronto.ca). Consult the [Code of Behaviour on](#)

[Academic Matters \(https://governingcouncil.utoronto.ca/secretariat/policies/code-behaviour-academic-matters-july-1-2025\)](https://governingcouncil.utoronto.ca/secretariat/policies/code-behaviour-academic-matters-july-1-2025) for a complete outline of the University's policy and expectations. For more information, please see [A&S Student Academic Integrity \(https://www.artsci.utoronto.ca/current/academic-advising-and-support/academic-integrity\)](https://www.artsci.utoronto.ca/current/academic-advising-and-support/academic-integrity) and the University of Toronto [Website on Academic Integrity \(https://www.academicintegrity.utoronto.ca/\)](https://www.academicintegrity.utoronto.ca/).

## Policy on generative AI (including ChatGPT)

In this course, you may use generative artificial intelligence (AI) tools, including ChatGPT and GitHub Copilot, as learning aids and to help complete weekly preps and assignments. You will not be permitted to use generative AI on the quizzes, tests or final exam. While some generative AI tools are currently available for free in Canada, please be warned that these tools have not been vetted by the University of Toronto and might not meet University guidelines or requirements for privacy, intellectual property, security, accessibility, and records retention. Generative AI may produce content which is incorrect or misleading, or inconsistent with the expectations of this course. These tools may be subject to service interruptions, software modifications, and pricing changes during the semester.

Generative AI is not required to complete any aspect of this course, and we caution you to not rely on these tools to complete your coursework. Instead, we recommend treating generative AI as a supplementary tool only for exploration or drafting content. Ultimately, you (and not any AI tool) are responsible for your own learning in this course, and for all the work you submit for credit. Note that if you do copy any output (code or otherwise) that was generated by AI, you must cite the source within your work (more details will be provided about this when the first assignment is released).

Lastly, remember that it is your responsibility to critically evaluate the content generated, and to regularly assess your own learning independent of generative AI tools (the checkpoint quizzes should help you evaluate this). Over-reliance on generative AI may give you a false sense of how much you've actually learned, which can lead to poor performance on the tests or final exam, in later courses, or in future work or studies after graduation.

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## Switching into CSC108

You will be able to switch from CSC110 to CSC108 up until September 25th, 2025. Students who are thinking about switching into CSC108 should speak with Amna ([amna.adnan@utoronto.ca](mailto:amna.adnan@utoronto.ca) (<mailto:amna.adnan@utoronto.ca>)), who is the CMP1 department advisor. Please note that if you switch to CSC108, you will also be removed from CSC111 in the winter semester, but will be given the option of taking CSC148 and CSC165 in the Winter term instead. You will lose the Computer Science Admission Guarantee but will be able to apply to a computer science program after completing CSC148 and CSC165.