

Course Syllabus

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 Edit

Hello!

Welcome to CSC111! This course is a continuation of CSC110Y1 and extends principles of programming and mathematical analysis to further topics in computer science.

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. You are responsible for all announcements made in lecture and on Quercus.

Please read through this course syllabus carefully to familiarize yourself with the content, logistics, and policies of CSC111.

All significant course announcements will be made on Quercus on the [Announcements](https://q.utoronto.ca/courses/379488/announcements) (<https://q.utoronto.ca/courses/379488/announcements>) page. **You are responsible for reading all course announcements.**

CSC111 Teaching Team

This term, both lecture sections have the same instructor (who is also the course coordinator) – Sadia Sharmin :)



Here is me with my parrotlet, Dr. Chirly (pronunciation: CHUR-lee), on top of my head!


Other than me, you may also hear from our administrative support, our head TAs, our MarkUs and auto-testing administrator, or your classroom and tutorial TAs who you will be seeing regularly throughout the course. :)

How to get in touch with us

What not to do

Do **NOT** use Quercus messaging for anything related to CSC111. 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/HqBbBD)  (<https://edstem.org/us/join/HqBbBD>). 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, you can also get in touch via this email address: csc111-2025-01@cs.toronto.edu (<mailto:csc111-2025-01@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. (Note: Sadia is better at monitoring Ed more regularly, so responses via Ed may be slightly faster.)

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/HqBbBD)  (<https://edstem.org/us/join/HqBbBD>) over 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 me during weekly office hours – more on that [below](#) (<https://q.utoronto.ca/courses/379488/assignments/syllabus#oh>)! You can come in on a drop-in basis with any general course-related questions (or – during less busy weeks – even just to chat).

Sadia's regular weekly office hours (*beginning from the week of January 13th*) are as below:

Tuesdays 1:00pm - 2:30pm (in-person, private office hours – *by appointment**)

Wednesdays 12:30pm to 1:30pm (online, both private & group available), Location: Zoom at <https://utoronto.zoom.us/j/84245010690>  (<https://utoronto.zoom.us/j/84245010690>) (Passcode: 110110)

Thursdays 1:30pm to 2:30pm (in-person, group office hours), Location: [BA 4290](#) (<https://map.utoronto.ca/?id=1809#!m/494470>)

* Private one-on-one appointment times to discuss personal matters will be available on most Tuesdays, starting from a few weeks into the course. Please see the booking link [here](#)  (<https://outlook.office365.com/owa/calendar/CSC111AdvisingAppointment@utoronto.onmicrosoft.com/booki>) for exact dates and to sign up for an appointment.

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, with links to each section below:

- [Lectures](https://q.utoronto.ca/courses/379488/assignments/syllabus/#lectures) (<https://q.utoronto.ca/courses/379488/assignments/syllabus/#lectures>)
- [Office Hours](https://q.utoronto.ca/courses/379488/assignments/syllabus/#oh) (<https://q.utoronto.ca/courses/379488/assignments/syllabus/#oh>)
- [Assessments](https://q.utoronto.ca/courses/379488/assignments/syllabus/#assessments) (<https://q.utoronto.ca/courses/379488/assignments/syllabus/#assessments>)
 - [Weekly Checkpoint Quizzes](https://q.utoronto.ca/courses/379488/assignments/syllabus/#quizzes) (<https://q.utoronto.ca/courses/379488/assignments/syllabus/#quizzes>) (overview) – more details [here](https://q.utoronto.ca/courses/379488/pages/weekly-checkpoint-quizzes) (<https://q.utoronto.ca/courses/379488/pages/weekly-checkpoint-quizzes>)
 - [Exercises/Projects](https://q.utoronto.ca/courses/379488/assignments/syllabus/#assigns) (<https://q.utoronto.ca/courses/379488/assignments/syllabus/#assigns>) (overview) – more details [here](https://q.utoronto.ca/courses/379488/pages/exercise-expectations) (<https://q.utoronto.ca/courses/379488/pages/exercise-expectations>)
 - [Tests](https://q.utoronto.ca/courses/379488/assignments/syllabus/#tests) (<https://q.utoronto.ca/courses/379488/assignments/syllabus/#tests>)
- [Technology requirements](https://q.utoronto.ca/courses/379488/assignments/syllabus/#technology-requirements) (<https://q.utoronto.ca/courses/379488/assignments/syllabus/#technology-requirements>)
 - [Software setup](https://q.utoronto.ca/courses/379488/assignments/syllabus/#technology-requirements) (<https://q.utoronto.ca/courses/379488/assignments/syllabus/#technology-requirements>)
 - [The Department of Computer Science Teaching Labs](https://q.utoronto.ca/courses/379488/assignments/syllabus/#technology-requirements) (<https://q.utoronto.ca/courses/379488/assignments/syllabus/#technology-requirements>)

- [Textbooks and resources \(https://q.utoronto.ca/courses/379488/assignments/syllabus/#textbooks-and-resources\)](https://q.utoronto.ca/courses/379488/assignments/syllabus/#textbooks-and-resources)
- [Accommodations and accessibility services \(https://q.utoronto.ca/courses/379488/assignments/syllabus/#accommodations-and-accessibility-services\)](https://q.utoronto.ca/courses/379488/assignments/syllabus/#accommodations-and-accessibility-services)
- [Special consideration for term tests \(https://q.utoronto.ca/courses/379488/assignments/syllabus/#special\)](https://q.utoronto.ca/courses/379488/assignments/syllabus/#special)
- [Special consideration for other homework \(https://q.utoronto.ca/courses/379488/assignments/syllabus/#special\)](https://q.utoronto.ca/courses/379488/assignments/syllabus/#special)
- [Remark requests \(https://q.utoronto.ca/courses/379488/assignments/syllabus/#remark-requests\)](https://q.utoronto.ca/courses/379488/assignments/syllabus/#remark-requests)
- [CSC111 Community Code of Conduct \(https://q.utoronto.ca/courses/379488/assignments/syllabus/#csc110-community-code-of-conduct\)](https://q.utoronto.ca/courses/379488/assignments/syllabus/#csc110-community-code-of-conduct)
- [Copyright notice \(https://q.utoronto.ca/courses/379488/assignments/syllabus/#assigns\)](https://q.utoronto.ca/courses/379488/assignments/syllabus/#assigns)
- [Copyright notice \(https://q.utoronto.ca/courses/379488/assignments/syllabus/#copyright-notice\)](https://q.utoronto.ca/courses/379488/assignments/syllabus/#copyright-notice)
- [Switching to CSC108 \(https://q.utoronto.ca/courses/379488/assignments/syllabus/#switching-into-csc108\)](https://q.utoronto.ca/courses/379488/assignments/syllabus/#switching-into-csc108)

We also highlighted key parts throughout. :)

Lectures

The first lecture is on **Tuesday, January 7**. 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 | Tuesday, 9:00 AM - 11:00 AM (Location: AH 100 (https://map.utoronto.ca/?id=1809#!m/494578?share)._) | Tuesday, 3:00 PM - 5:00 PM (Location: MS 3154 (https://map.utoronto.ca/?id=1809#!m/494491)._) |
| | Thursday, 10:00 AM - 11:00 AM (Location: AH 100 (https://map.utoronto.ca/?id=1809#!m/494578?share) (https://map.utoronto.ca/?id=1809#!m/494481)._) | Thursday, 3:00 PM - 4:00 PM (Location: HS 610 (https://map.utoronto.ca/?id=1809#!m/494459?s/)._) |

Attendance in lecture is not graded, but is considered a mandatory part of the course.

Lecture recordings

LEC0201 will be participating in the University of Toronto's *Opencast Content Capture Pilot*, which will automatically record lectures and post them on the [OCCS Student App](#) (https://q.utoronto.ca/courses/379488/external_tools/11190). 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](#) (<https://q.utoronto.ca/courses/379488/assignments/syllabus/#copyright-notice>) below).

Office hours

Each week, I (Sadia) 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 (Please attend, even just to say hi!)

Sadia's regular weekly office hours (*beginning from the week of January 13th*) are as below:


Tuesdays 1:00pm - 2:30pm (in-person, private office hours – *by appointment**)

Wednesdays 12:30pm to 1:30pm (online, both private & group available), Location: Zoom at <https://utoronto.zoom.us/j/84245010690> ➞ (<https://utoronto.zoom.us/j/84245010690>) (Passcode: 110110)


Thursdays 1:30pm to 2:30pm (in-person, group office hours), Location: [BA 4290](#) (<https://map.utoronto.ca/?id=1809#!m/494470>)

* Private one-on-one appointment times to discuss personal matters will be available on most Tuesdays, starting from a few weeks into the course. Please see the booking [link](#) ➞ (<https://outlook.office365.com/owa/calendar/CSC111AdvisingAppointment@utoronto.onmicrosoft.com/booki>) 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 attend Sadia's online office hour session on Wednesday where you can request a private breakout room for a one-on-one conversation, or use this [link](#) 

(<https://outlook.office365.com/owa/calendar/CSC111AdvisingAppointment@utoronto.onmicrosoft.com/book>) to book an in-person one-on-one appointment. If you have such a matter to discuss but none of the available times work for you, feel free to send an email to the course account to request an appointment (let us know your availability for the week within the email, being as flexible as possible).

When you come to office hours, you should fill out this form – [Office Hours Sign-up Form](#)  (<https://forms.office.com/r/Xk4DwrXeb1>) (note: the form data resets 10 minutes before scheduled office hours, so don't fill it out until the office hours are almost about to begin, or else you may lose your spot in the queue once the form resets). This will add you to the 'queue' and I will call on you in order. For online hours, I will likely invite you into a breakout room. Please join the room and **wait in the room** until I get to you, based on the queue order. :)

Assessments

Note: *The 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 |
|--------------------|---------|--|--|
| Checkpoint quizzes | 10% | 5 unit quizzes, roughly every other week (exact schedule and more information below (https://q.utoronto.ca/courses/379488/assignments/syllabus/#quizzes) – 2% for each chapter's quiz | All quizzes take place during your registered tutorial session on Friday. Tutorials begin from Week 2. |
| Exercises | 10% | 4 exercises, 2.5% each | <i>All exercises are due on Mondays at 4pm.</i> |

| Assessment | Percent | Details | Due Date |
|------------------------------------|---------|---|--|
| | | | <p>Exercise 1: January 27 before 4pm</p> <p>Exercise 2: February 17 before 4pm</p> <p>Exercise 3: March 17 before 4pm</p> <p>Exercise 4: March 31 before 4pm</p> |
| Course Project 1 | 8% | Open-ended creative project to be done individually or with a partner | Wednesday February 5 before 4pm |
| Course Project 2 - Proposal | 2% | Written proposal for course project 2 | Wednesday March 5 before 4pm |
| Course Project 2 | 8% | Open-ended creative project to be done in groups of up to 4 students | Friday March 28 before 4pm |
| Term Tests | 24.5% | Higher scoring term test will be worth 13.5% and the other worth 11% | <i>Both tests will take place during your regular lecture time (but may be in a different room! Be sure to</i> |

| Assessment | Percent | Details | Due Date |
|--|---------|---|---|
| | | | <i>check test info page – to be made available closer to test date – for details.)</i> Test 1: Tuesday February 11, during your lecture session Test 2: Tuesday March 25, during your lecture session |
| Checkpoint Quiz Feedback Survey | 0.5% | 1 survey regarding your experience with checkpoint quizzes in 110 + 111 | TBA |
| Ethics Modules | 3% | 2 surveys - worth 0.5% each, 1 written reflection due near the end of the term - worth 2% | Module 1: March 6 Module 2: March 27 <i>Surveys will be due close to each module date.</i> <i>Written</i> |

| Assessment | Percent | Details | Due Date |
|-----------------------------|---------|---|---|
| | | | <i>reflection will be due after the second module. Exact dates to be announced.</i> |
| In-Person Final Exam | 34% | You must receive a grade of at least 40% on the final exam to pass CSC111. 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. | Final Exam Period – will be announced by the Faculty of A&S later in the semester |

Checkpoint Quizzes – Friday Tutorials (10%)

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. A full schedule is below.

NO TUTORIAL QUIZZES DURING THE FIRST WEEK OF CLASS. The first tutorial quiz is **Friday, Jan 17**. Like lectures, all tutorials start at "U of T time", which is 10 minutes past the hour.

Competency-based Grading

Each chapter's quiz is worth 2% of your course grade. This means the checkpoint quizzes are worth a total of 10% of your course grade.

They are graded based on "competency" rather than "mastery." Scoring a B+ (77%) or higher on any quiz will count as "passing the checkpoint" and give you the full 2% for that quiz.

Anything below 77% will count as "not passing" the checkpoint, and opportunities for retakes will be available (see more below).

Retake Days

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" (i.e. earn 77%+) on a checkpoint quiz, you will be given an opportunity to re-attempt a different quiz testing the same concepts during the upcoming week's tutorial session.

Some tutorial sessions will offer the option to "Retake/Jumpstart" a quiz during which you will have the opportunity to either:

1. Retake the checkpoint quiz **from the previous week** (with different questions testing the same topics), or
2. Take an upcoming quiz **from the next week** ahead of time to cross checkpoints early (freeing up your time later in the course).

A full, detailed schedule is below.

Weekly quiz schedule

The quizzes will take place during the following weeks, focussing on the following topics (all dates that are not bolded are optional, only to be attended if you want to do a retake or jumpstart quiz – note, jumpstarts are only available for Quiz 3 and Quiz 5 because of the way the topics are scheduled this term):

- **Week 2 (Friday, Jan 17) – Quiz 1: Linked Lists (Chapter 13)**
- **Week 3 (Friday, Jan 24) – Quiz 2: Recursion with Nested Lists (Chapter 14)**, Retake Quiz 1
- Week 4 (Friday, Jan 31) – Retake Quiz 2, Jumpstart Quiz 3
- **Week 5 (Friday, Feb 7) – Quiz 3: Trees (Chapter 15)**
- Week 6 (Friday, Feb 14) – Retake Quiz 3
 - *Note: Chapters 13-15 will be tested on your first term test, taking place during lecture time on Tuesday February 11*
 - *Note: There is no tutorial on Week 7*
- **Week 8 (Friday, March 7) – Quiz 4: Graphs (Chapter 17)**
- Week 9 (Friday, March 14) – Retake Quiz 4, or Jumpstart Quiz 5
- **Week 10 (Friday, March 21) – Quiz 5: Sorting (Chapter 18)**
- Week 11 (Friday, March 28) – Retake Quiz 5

Note: If you complete Quiz 3 or 5 during a jumpstart week, then your second attempt for that quiz must take place during the regular quiz week. That is, the second attempt of a quiz is always exactly one week after the first attempt.

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 instructors. We will announce a booking link to sign up 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.

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 by 5 pm. 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 midterm and final exams.

Exercises (10%) and Course Projects (20%)

Exercises will be posted online, and will be submitted to the MarkUs application. Exercises must be completed **individually**.

Exercises and Course Projects: 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 are late and will be accepted only under the policy on special consideration and accommodations below.

Exercises and Course Projects: 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 exercises and **up to 3 days** for the course projects by completing this form [to be posted].

More information about assignments can be found here: [Exercise Expectations](https://q.utoronto.ca/courses/379488/pages/exercise-expectations)
(<https://q.utoronto.ca/courses/379488/pages/exercise-expectations>)

Term Tests (24.5%) and Final Exam (34%)

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 Tuesday lecture time, replacing the regular lecture.


IMPORTANT NOTE: You must receive a grade of at least **40%** on the final exam to pass CSC111. 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.

There are no retakes available for the term test, but for students who wrote both test 1 and test 2, if your final exam grade is higher than both of the tests (if your weighted exam is higher than your **combined weighted** $t_1 + t_2$ grade), you are eligible for a re-weighting of the tests to the exam. Skipping the term tests will make you ineligible for this option, unless the test was missed due to an extenuating circumstance which you contacted us about.

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.

Weekly preparation exercises will consist of a few readings and short exercises that you should complete before each week of lecture. 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.

Each prep consists of a short reading from the [CSC110/111 Course Notes](https://www.teach.cs.toronto.edu/~csc110y/fall/notes) , a series of short-answer comprehension questions hosted in an online **Quercus quiz**, and then some programming exercises that you will download and submit to using the online **MarkUs** application.

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 are 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 lecture and tutorial, 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 CSC111 [Software Installation/Upgrading Guide](https://q.utoronto.ca/courses/379488/pages/setting-up-your-computer-start-here?module_item_id=1346385) (https://q.utoronto.ca/courses/379488/pages/setting-up-your-computer-start-here?module_item_id=1346385) on your personal computer to make sure you have all the required software for this course. *Note:* we are continuing with 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, and have both computers and printers that you can access. 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/intro_for_new_students.html) [↗](https://www.teach.cs.toronto.edu/resources/introduction-for-new-students-using-the-teach-cs-labs/https://www.teach.cs.toronto.edu/resources/intro_for_new_students.html) (https://www.teach.cs.toronto.edu/resources/introduction-for-new-students-using-the-teach-cs-labs/https://www.teach.cs.toronto.edu/resources/intro_for_new_students.html).

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) (<https://www.teach.cs.toronto.edu/~csc110y/fall/notes>). Roughly half of these chapters will be assigned as prep throughout this term (the second half, continuing from where we left off in CSC110), 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/) [↗](https://pragprog.com/titles/gwpy3/) (<https://pragprog.com/titles/gwpy3/>) by Paul Gries, Jennifer Campbell, and Jason Montojo.
- [How to Think Like a Computer Scientist](http://www.openbookproject.net/thinkcs/python/english3e/) [↗](http://www.openbookproject.net/thinkcs/python/english3e/) (<http://www.openbookproject.net/thinkcs/python/english3e/>) by Peter Wentworth, Jeffrey Elkner, Allen B. Downey, and Chris Meyers.
- [Learn to Code by Solving Problems: A Python Programming Primer](https://www.amazon.ca/Program-Solving-Problems-Daniel-Zingaro/dp/1718501323) [↗](https://www.amazon.ca/Program-Solving-Problems-Daniel-Zingaro/dp/1718501323) (<https://www.amazon.ca/Program-Solving-Problems-Daniel-Zingaro/dp/1718501323>) by Dan Zingaro
- [How to Prove It](https://librarysearch.library.utoronto.ca/discovery/search?query=any,contains,how%20to%20prove%20it%20daniel%20velleman&tab=Everything&search_scope=U) (https://librarysearch.library.utoronto.ca/discovery/search?query=any,contains,how%20to%20prove%20it%20daniel%20velleman&tab=Everything&search_scope=U) by Daniel J. Velleman.
- [Discrete Mathematics: An Open Introduction](http://discrete.openmathbooks.org/dmoi3.html) [↗](http://discrete.openmathbooks.org/dmoi3.html) (<http://discrete.openmathbooks.org/dmoi3.html>) by Oscar Levin.

Accommodations and 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**.

Students who require accommodations for the term tests **need to register with Test & Exam Services**.

Special consideration for term tests

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

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.

Special consideration for other homework

The flexible extension policy for assignment deadlines should cover all illness, disability-related barriers, and other special considerations for Exercises and course projects. A student who has been ill **for the entire time between the assignment deadline and the allowed extension date**, may contact us through the course email address.

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 exercises: No remark requests. The exercises will mostly use solely automated tests to assess your work, similar to the MarkUs tests we provide you for your weekly preps. Since the exercises are auto-marked, there will be **no remark requests** available for them. **Be sure to run your code and fix all PythonTA errors prior to submission!**

For projects: request a remark on MarkUs for the project 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.

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.

CSC111 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 CSC111 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 CSC111 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 CSC111 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 csc111-2025-01@cs.toronto.edu (<mailto:csc111-2025-01@cs.toronto.edu>). We will respond to you in a timely manner and everything you say will be confidential.

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 CSC111 (including exercises, projects, and tests) may not be shared with other students or published, with one major exception (private repositories, mentioned in the paragraph below). 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).

[GitHub](https://www.github.com) [\(https://www.github.com\)](https://www.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. As we stated above, you should not put your work publicly on GitHub. However, you may use GitHub's **private repositories** to store your own work. (See [GitHub's instructions for creating a repository](https://docs.github.com/en/github/getting-started-with-github/create-a-repo) [\(https://docs.github.com/en/github/getting-started-with-github/create-a-repo\)](https://docs.github.com/en/github/getting-started-with-github/create-a-repo) 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-1-2019) [\(https://governingcouncil.utoronto.ca/secretariat/policies/code-behaviour-academic-matters-july-1-2019\)](https://governingcouncil.utoronto.ca/secretariat/policies/code-behaviour-academic-matters-july-1-2019). 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-1-2019) [\(https://governingcouncil.utoronto.ca/secretariat/policies/code-behaviour-academic-matters-july-1-2019\)](https://governingcouncil.utoronto.ca/secretariat/policies/code-behaviour-academic-matters-july-1-2019) 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/student-academic-integrity) [\(https://www.artsci.utoronto.ca/current/academic-advising-and-support/student-academic-integrity\)](https://www.artsci.utoronto.ca/current/academic-advising-and-support/student-academic-integrity) and the University of Toronto Website on [Academic Integrity](https://www.academicintegrity.utoronto.ca) [\(https://www.academicintegrity.utoronto.ca\)](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 code that was generated by AI, you **must cite the source** within your code (more details will be provided about this when the first coding 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.











Course Summary:










| Date | Details | Due |
|------------------|---|--------------------|
| Tue Jan 14, 2025 |  Week 2 Comprehension Quiz (https://q.utoronto.ca/courses/379488/assignments/1436959) | due by 9am |
| |  Sadia's in-person weekly office hours (https://q.utoronto.ca/calendar?event_id=948591&include_contexts=course_379488) | 11:30am to 12:30pm |
| Wed Jan 15, 2025 |  Sadia's online weekly office hours (https://q.utoronto.ca/calendar?event_id=948579&include_contexts=course_379488) | 2pm to 4pm |
| |  Week 3 Comprehension Quiz (https://q.utoronto.ca/courses/379488/assignments/1436960) | due by 9am |
| Tue Jan 21, 2025 |  Sadia's in-person weekly office hours (https://q.utoronto.ca/calendar?event_id=948592&include_contexts=course_379488) | 11:30am to 12:30pm |
| |  Hana's in-person office hours (https://q.utoronto.ca/calendar?event_id=948574&include_contexts=course_379488) | 12pm to 1pm |
| Wed Jan 22, 2025 |  Sadia's online weekly office hours (https://q.utoronto.ca/calendar?event_id=948580&include_contexts=course_379488) | 2pm to 4pm |
| |  Hana's in-person office hours (https://q.utoronto.ca/calendar?event_id=948593&include_contexts=course_379488) | 11am to 1pm |

| Date | Details | Due |
|------------------|---|--------------------|
| Fri Jan 24, 2025 |  Exercise 1 https://q.utoronto.ca/courses/379488/assignments/1436948 | due by 11:59pm |
| |  Week 4 Comprehension Quiz https://q.utoronto.ca/courses/379488/assignments/1436961 | due by 9am |
| Tue Jan 28, 2025 |  Sadia's in-person weekly office hours https://q.utoronto.ca/calendar?event_id=948575&include_contexts=course_379488 | 11:30am to 12:30pm |
| Wed Jan 29, 2025 |  Sadia's online weekly office hours https://q.utoronto.ca/calendar?event_id=948581&include_contexts=course_379488 | 2pm to 4pm |
| Mon Feb 3, 2025 |  Project 1 https://q.utoronto.ca/courses/379488/assignments/1436952 | due by 5pm |
| |  Week 5 Comprehension Quiz https://q.utoronto.ca/courses/379488/assignments/1436962 | due by 9am |
| Tue Feb 4, 2025 |  Sadia's in-person weekly office hours https://q.utoronto.ca/calendar?event_id=948576&include_contexts=course_379488 | 11:30am to 12:30pm |
| Wed Feb 5, 2025 |  Sadia's online weekly office hours https://q.utoronto.ca/calendar?event_id=948582&include_contexts=course_379488 | 2pm to 4pm |
| |  Term Test 1 https://q.utoronto.ca/calendar?event_id=948600&include_contexts=course_379488 | 12am |
| Tue Feb 11, 2025 |  Sadia's in-person weekly office hours https://q.utoronto.ca/calendar?event_id=948577&include_contexts=course_379488 | 11:30am to 12:30pm |
| Wed Feb 12, 2025 |  Sadia's online weekly office hours https://q.utoronto.ca/calendar?event_id=948583&include_contexts=course_379488 | 2pm to 4pm |
| Fri Feb 14, 2025 |  Exercise 2 https://q.utoronto.ca/courses/379488/assignments/1436949 | due by 11:59pm |

| Date | Details | Due |
|------------------|---|--------------------|
| Tue Feb 18, 2025 |  Sadia's in-person weekly office hours (https://q.utoronto.ca/calendar?event_id=948578&include_contexts=course_379488) | 11:30am to 12:30pm |
| Wed Feb 19, 2025 |  Sadia's online weekly office hours (https://q.utoronto.ca/calendar?event_id=948584&include_contexts=course_379488) | 2pm to 4pm |
| Tue Feb 25, 2025 |  Week 7 Comprehension Quiz (https://q.utoronto.ca/courses/379488/assignments/1436963) | due by 9am |
| |  Sadia's in-person weekly office hours (https://q.utoronto.ca/calendar?event_id=948594&include_contexts=course_379488) | 11:30am to 12:30pm |
| Wed Feb 26, 2025 |  Sadia's online weekly office hours (https://q.utoronto.ca/calendar?event_id=948585&include_contexts=course_379488) | 2pm to 4pm |
| Tue Mar 4, 2025 |  Week 8 Comprehension Quiz (https://q.utoronto.ca/courses/379488/assignments/1436964) | due by 9am |
| |  Sadia's in-person weekly office hours (https://q.utoronto.ca/calendar?event_id=948595&include_contexts=course_379488) | 11:30am to 12:30pm |
| |  Sadia's online weekly office hours (https://q.utoronto.ca/calendar?event_id=948586&include_contexts=course_379488) | 2pm to 4pm |
| Wed Mar 5, 2025 |  Project 2 / Phase 1: Proposal (https://q.utoronto.ca/courses/379488/assignments/1436953) | due by 5pm |
| |  Project 2 Proposal (https://q.utoronto.ca/courses/379488/assignments/1436954) | due by 5pm |
| Fri Mar 7, 2025 |  Exercise 3 (https://q.utoronto.ca/courses/379488/assignments/1436950) | due by 11:59pm |
| Tue Mar 11, 2025 |  Week 9 Comprehension Quiz (https://q.utoronto.ca/courses/379488/assignments/1436965) | due by 9am |

| Date | Details | Due |
|------------------|---|--------------------|
| |  Sadia's in-person weekly office hours (https://q.utoronto.ca/calendar?event_id=948596&include_contexts=course_379488) | 11:30am to 12:30pm |
| Wed Mar 12, 2025 |  Sadia's online weekly office hours (https://q.utoronto.ca/calendar?event_id=948587&include_contexts=course_379488) | 2pm to 4pm |
| Tue Mar 18, 2025 |  Week 10 Comprehension Quiz (https://q.utoronto.ca/courses/379488/assignments/1436957) | due by 9am |
| |  Sadia's in-person weekly office hours (https://q.utoronto.ca/calendar?event_id=948597&include_contexts=course_379488) | 11:30am to 12:30pm |
| Wed Mar 19, 2025 |  Sadia's online weekly office hours (https://q.utoronto.ca/calendar?event_id=948588&include_contexts=course_379488) | 2pm to 4pm |
| Fri Mar 21, 2025 |  Exercise 4 (https://q.utoronto.ca/courses/379488/assignments/1436951) | due by 11:59pm |
| Mon Mar 24, 2025 |  Wise Chua's in-person and online office hours (https://q.utoronto.ca/calendar?event_id=948602&include_contexts=course_379488) | 2pm to 4pm |
| Tue Mar 25, 2025 |  Term Test 2 (https://q.utoronto.ca/calendar?event_id=948601&include_contexts=course_379488) | 12am |
| |  Week 11 Comprehension Quiz (https://q.utoronto.ca/courses/379488/assignments/1436958) | due by 9am |
| |  Balu Unnikrishnan's in-person office hours (https://q.utoronto.ca/calendar?event_id=948603&include_contexts=course_379488) | 11:30am to 12:30pm |
| |  Sadia's in-person weekly office hours (https://q.utoronto.ca/calendar?event_id=948598&include_contexts=course_379488) | 11:30am to 12:30pm |

| Date | Details | Due |
|------------------|---|--------------------|
| Wed Mar 26, 2025 |  Ali Raeisdanaei's in-person office hours (https://q.utoronto.ca/calendar?event_id=948605&include_contexts=course_379488) | 2pm to 4pm |
| |  Sahar Sheikholeslami's online office hours (https://q.utoronto.ca/calendar?event_id=948611&include_contexts=course_379488) | 5pm to 6pm |
| |  Shiva Akbari's online office hours (https://q.utoronto.ca/calendar?event_id=948606&include_contexts=course_379488) | 10am to 11am |
| |  Sadia's online weekly office hours (https://q.utoronto.ca/calendar?event_id=948589&include_contexts=course_379488) | 2pm to 4pm |
| |  Anudev Gill's online office hours (https://q.utoronto.ca/calendar?event_id=948604&include_contexts=course_379488) | 2pm to 3pm |
| |  Tara Saba's in-person office hours (https://q.utoronto.ca/calendar?event_id=948607&include_contexts=course_379488) | 3pm to 4pm |
| Thu Mar 27, 2025 |  Amir Mostofinejad's online office hours (https://q.utoronto.ca/calendar?event_id=948608&include_contexts=course_379488) | 4pm to 5pm |
| |  Eric Yu's online office hours (https://q.utoronto.ca/calendar?event_id=948609&include_contexts=course_379488) | 8am to 9am |
| Fri Mar 28, 2025 |  Utsav Shinghal's online office hours (https://q.utoronto.ca/calendar?event_id=948610&include_contexts=course_379488) | 12pm to 1pm |
| Tue Apr 1, 2025 |  Sadia's in-person weekly office hours (https://q.utoronto.ca/calendar?event_id=948599&include_contexts=course_379488) | 11:30am to 12:30pm |

| Date | Details | Due |
|------------------|---|----------------|
| Wed Apr 2, 2025 |  Sadia's online weekly office hours (https://q.utoronto.ca/calendar?event_id=948590&include_contexts=course_379488) | 2pm to 4pm |
| Fri Apr 4, 2025 |  Contact Tracing and Privacy Module: Homework (Worth 2%) (https://q.utoronto.ca/courses/379488/assignments/1436946) | due by 11:59pm |
| |  Ethics Module 2: Survey (Worth 0.5%) (https://q.utoronto.ca/courses/379488/assignments/1436947) | due by 11:59pm |
| Mon Apr 7, 2025 |  Eric's in-person office hours (https://q.utoronto.ca/calendar?event_id=948572&include_contexts=course_379488) | 4pm to 6pm |
| Fri Apr 11, 2025 |  Sarah's in-person office hours (https://q.utoronto.ca/calendar?event_id=948571&include_contexts=course_379488) | 3pm to 5pm |
| Wed Apr 16, 2025 |  Balu's in-person office hours (https://q.utoronto.ca/calendar?event_id=948573&include_contexts=course_379488) | 12pm to 1pm |
| |  Quiz 1 Third Attempt (https://q.utoronto.ca/courses/379488/assignments/1425137) | |
| |  Test 1 (https://q.utoronto.ca/courses/379488/assignments/1436955) | |
| |  Test 2 (https://q.utoronto.ca/courses/379488/assignments/1436956) | |