CSC148H1 S 20221 (All Sections): Introduction to **Computer Science**

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Welcome to CSC148! This course, Introduction to Computer Science, introduces you to how computer scientists think in a systematic way about computing. Our goal is to provide you with skills for approaching program design in a principled way, using techniques such as encapsulation, modularity, information-hiding, comparing different implementations for efficiency, and building powerful data structures.

The material posted on Quercus is required reading. It contains important information: assignment handouts, the policy on missed work, links to the online discussion forum (Piazza), the announcements page, and more. You are responsible for all announcements made in lecture and on Quercus.

To contact the course instructors regarding personal issues related to csc148, please email csc148-2022-01@cs.toronto.edu (mailto:csc148-2022-01@cs.toronto.edu) from your UofT address. Include your full name and UTORid in the body of the email.

For course-related questions that are not personal, please use Piazza or visit us during office hours.

Please do not use Quercus messaging for anything related to CSC148.

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Instructors

Diane is the Course Coordinator, which means that she and the Instructional Support staff deal with all administrative issues (e.g., missed work, problems with your grades, the course website, and TA issues). Sophia is Lab Coordinator, which means she deals with all issues related to the weekly preps and labs.

Instructor	Diane Horton (Course Coordinator)	Sophia Huynh (Lab Coordinator)	Sadia Sharmin	Jonathan Calver
Instructor Office Hours for one-on-one questions. Beginning Wednesday, January 12, 2022	See Group Office Hours below	TBA	TBA	TBA
Group Office Hours for shared questions	TBA			
Email	<u>csc148-2022-01@cs.toronto.edu</u> (<u>mailto:csc148-2022-01@cs.toronto.edu</u>)			
Sections	<u>L0101/L0102</u> 12-2pm		<u>L0201</u> 2-4pm	<u>L0302</u> 2-4pm

	Wednesdays and 1-2pm Fridays		Wednesdays and 2-3pm Fridays <u>L0301</u> 2-4pm Tuesdays and 2-3pm Thursdays <u>L5101</u> 6-9pm Tuesdays	Tuesdays and 2-3pm Thursdays <u>L5102</u> 6-9pm Tuesdays
L0101/L0102 (Diane Horton)	https://zoom.us/j/99730582240 (https://zoom.us /j/99730582240) Meeting ID: 997 3058 2240 Passcode: 148Diane			
L0201 (Sadia Sharmin)	https://utoronto.zoom.us/j/85400625343 (https://utoronto.zoom.us/j/85400625343) Meeting ID: 854 0062 5343 Passcode: 1482022			
L0301 (Sadia Sharmin)	https://utoronto.zoom.us/j/85400625343 (https://utoronto.zoom.us/j/85400625343) Meeting ID: 854 0062 5343 Passcode: 1482022			
L0302 (Jonathan Calver)	<u>https://utoronto.zoom.us/j/81947631136</u> (<u>https://utoronto.zoom.us/j/81947631136</u>)			

	Meeting ID: 819 4763 1136 Passcode: 148148
L5101 (Sadia Sharmin)	https://utoronto.zoom.us/j/85400625343 (https://utoronto.zoom.us/j/85400625343) Meeting ID: 854 0062 5343 Passcode: 1482022
L5102 (Jonathan Calver)	https://utoronto.zoom.us/j/81947631136 (https://utoronto.zoom.us/j/81947631136) Meeting ID: 819 4763 1136 Passcode: 148148

Discussion Board

Please post your questions about the course material and assignments on our Piazza discussion board so that everyone can benefit from your questions. Feel free to answer other students' questions! Helping someone else learn is one of the most effective ways of truly mastering a subject.

We will monitor the discussion board regularly and answer as many questions as we can. It may take longer near due dates, so try to start assignments early in case you have questions. If you do not hear back quickly, we are always available during office hours to help.

Lectures

Active Learning

During lectures, we will present material and demonstrate problem solving for part of the time. There will also regularly be activities that you participate in. Be prepared to get your

gears turning in class! There is very strong evidence, and our experience also shows, that active learning works better than passively listening to a lecture. We also think it's a lot more fun!

Lecture Recordings

We will make our best effort to ensure that one lecture section is recorded and posted for each hour of the course. If you are unable to connect to class on a given day, you can view a recording. Viewing the recorded materials will provide a poorer experience than participating actively in class, so we hope that everyone who can stream live and participate will choose to do that.

Course videos and materials belong to the instructor, the University, and/or other source depending on the specific facts of each situation, and are protected by copyright. In this course, you are permitted to download session videos and course materials for your own academic use, but you should not copy, share, or use them for any other purpose without the explicit permission of the instructor.

Video recordings of class will not include the images of students, even if their camera is on. The chat will not be recorded, nor will anything from the breakout sessions.

Creating a Positive Learning Environment

We are committed to creating a respectful learning environment in computer science courses for all students and expect that you will adhere to the University of Toronto <u>Code</u> <u>of Student Conduct (http://www.viceprovoststudents.utoronto.ca</u> /<u>publicationsandpolicies/codeofstudentconduct.htm</u>).</u> Please be mindful of how your behavior influences the atmosphere in our learning community, not just in classes, but also in office hours, in online forums, and anywhere that you interact with other students and members of the department.

Prerequisites

CSC108 or equivalent programming experience is assumed. We'll be using Python in the course, but comfort with other imperative programming languages like Java or C should

be fine. There will be a **rampup session** during the first weekend of term for students whose background is not in Python or who feel they need a refrheser. Find out more <u>here</u>.

Here are some links to CSC108 materials and general advice:

- <u>Coursera course 1</u> (<u>https://www.coursera.org/course/programming1</u>) and <u>Coursera course 2</u> (<u>https://www.coursera.org/course/programming2</u>)
- <u>CSC108 Fall 2021 website</u> <u>(https://www.teach.cs.toronto.edu/~csc108h/fall/</u>)
- Information about the CSC108 textbook _(https://pragprog.com/titles/gwpy3 /practical-programming-third-edition/)
- <u>CSC108 Youtube channel</u> <u>(https://www.youtube.com/channel</u> /UCu8NnRGTGxHe96Le0xqLrNQ/videos)
- <u>Advice on choosing your first-year courses</u> <u>(https://web.cs.toronto.edu</u> /<u>undergraduate/first-year-courses)</u> (skip down to "Do you have some programming experience?")

Dropping down to CSC108H1

If you realize during the term that you would be better served by taking CSC108H1 before this course, you may want to drop down to CSC108H1. Please consult <u>this page</u> (<u>https://web.cs.toronto.edu/undergraduate/dropping-down</u>) for information on how to do so. Note that you may only drop down if there is space in CSC108, and that there is a deadline (find out more at the linked page).

Textbook

There is no course textbook. We'll be using online <u>lecture notes</u> (<u>https://www.teach.cs.toronto.edu/~csc148h/winter/notes/)</u> throughout the term; this is your required reading for this course. We will occasionally post links to other readings. All readings will be available for free.

Course Software

For information about the software we'll use for this course, please see the <u>Software</u> <u>Guide</u> page.

Marking Scheme

10 "prep" exercises	10%	Worth 1% each, due Tuesdays at 1:00 pm.
9 labs (called "TUT" on Acorn)	9%	1% each. Synchronous and online until we can return to campus.
Research surveys	1%	Earn 1% by completing both surveys: one near the middle of term and one near the end.
3 Assignments	31%	A0 (5%), A1 (13%), A2 (13%)
Midterm	15%	Online during class time on Tuesday February 15th and Wednesday February 16th.
Final Exam	34% You must earn 40% or above on the final exam to pass the course; otherwise, your final course grade will be no higher than 47%.	During the final assessment period.

Technical Issues and Missed Midterms

- Students should make their best effort to ensure that they will have reliable computer and internet access during the online midterm.
- Students who are unable to complete their midterm for technical reasons should

contact the course email address (<u>csc148-2022-01@cs.toronto.edu</u> (<u>mailto:csc148-2022-01@cs.toronto.edu</u>) as soon as possible.

- If a technical issue is not resolvable in time for a student to complete their test or exam, special consideration *may* be granted. Requests for special consideration in this case are not guaranteed to be granted.
- We are not able to offer a makeup midterm. For a student who misses the midterm for a legitimate reason (technical or related to illness) and is granted special consideration:
 - If the issue is resolved in time to write a later sitting of the midterm, we may be able to offer this later sitting
 - Otherwise, the midterm weight will be added to the final exam.

Assignment Policies

Assignments must be submitted electronically, using the MarkUs online system. Be sure to confirm that you have submitted all the required files and the correct version of each; we cannot accept missing files or a different version of an already-submitted file after the due date.

Working with a Partner

All weekly preps must be done individually, as must Assignment 0. For Assignment 1 and Assignment 2, you have the option of partnering with one other CSC148 student, and we encourage you to do so. You may choose your own partner, from any section of the course on the St. George campus, and it need not be the same person for each assignment. Once you begin working on an assignment, you may not dissolve your partnership without our permission. Both partners will receive the same mark for joint assignments.

If you choose to work with a partner for an assignment, you must form a group on MarkUs. You should declare a partnership well before the deadline (there is no downside of doing so). Email the course account for help if you're having trouble forming a group.

Working with a partner has the potential to lighten your workload and to increase your learning, or to make things worse. It all depends on how well you work together. Remember that you are responsible for learning the course material underlying all parts of the assignments. You will have the most success if you truly work together.

If you are Having Difficulty with your Partner

If you and your partner are not working well together, please contact us through the course account without delay. We can do little to help if you contact us close to the assignment due date. Students are sometimes reluctant to ask for help, feeling that it is a kind of betrayal. However, experience has shown us that things rarely go well when students avoid the problem. We are here to help.

Late Assignments

MarkUs is known to be slow when many students try to submit right before a deadline. Aim to submit your work at least one hour before the deadline. You can submit your work more than once—only the last version submitted before the deadline will be graded.

The late penalty for assignments is as follows: 0% deduction for the first hour, then 5% deduction per hour for the next 5 hours, then 15% deduction for the next 5 hours. After 11 hours, no lates are accepted.

Note that your partnership cannot be declared during the late-with-penalty period. Declare your partnership well before the assignment deadline.

Late Preps

For weekly preps, no late submissions will be graded.

Technical Issues

- No extensions or special consideration will be granted to individual students on assignments and exercises for reasons of technical difficulties.
- To ensure that you are not affected by a technical difficulty on your end, we strongly recommend that you: (1) give yourself extra time in advance of the deadlines in case you have trouble submitting, and (2) regularly backup your assignment files, such as by submitting them to MarkUs (yes, you can submit incomplete assignments as you work on them and update later!), by emailing the assignment file to yourself, or by using some other method of backup. Make sure whatever you choose is not public. Using a public backup method, like a public Github repository, is equivalent to sharing your code with other students.
- In the unlikely event of a MarkUs outage affecting your ability to submit your exercises

or assignments, we will post an announcement with instructions on how to proceed.

Lab Policies

For CSC148, labs are a scheduled time for you to get hands-on experience applying the concepts you learn each week with support from a TA. There will also be an informal quiz activity at the end of lab.

Please consult the <u>Weekly Labs</u> page to find your assigned lab room. To keep the student-to-TA ratio consistent, you must attend the lab room you've been assigned. Labs will begin online. We hope to be able to hold in-person labs later in the term.

Your lab mark is based on two criteria:

- 1. Attendance (0.5%): To get the attendance mark, you must:
 - 1. Come to the lab within 10 minutes of it starting (20 minutes past the hour)*
 - 2. Put in a good effort each lab (not just goofing off)
- 2. End-of-lab quiz (0.5%): At the end of the lab, you will be given time to complete a quiz on either MarkUs or Quercus. There will also be a post-quiz discussion, which you can (and should) use to revise your answers.

Attendance grades will appear on MarkUs a day or two after by the Monday after the lab has completed. Please wait a few days before asking about a missing attendance grade.

*This flexibility is intended for you to not have to worry about occasionally arriving later than 10 past. However regular lateness may affect your lab mark.

Special Consideration

Students experiencing illness or other emergencies that prevent them from being able to complete homework on time, or write a test, can apply to the Course Coordinator for special consideration. You will be required to affirm that you are abiding by the <u>Code of Behaviour on Academic Matters</u> (http://www.governingcouncil.utoronto.ca/Assets /<u>Governing+Council+Digital+Assets/Policies/PDF/ppjun011995.pdf</u>), in particular, to be aware that it is an offence

to engage in any form of cheating, academic dishonesty or misconduct, fraud or

misrepresentation not herein otherwise described, in order to obtain academic credit or other academic advantage of any kind

That is, you must be truly experiencing an emergency, and acknowledge that to falsely claim so is an academic offence. Applying does not guarantee that you will be granted special consideration.

To apply for special consideration in CSC148, complete the Special Consideration Request Form (link TBA) and email it to the course account (<u>csc148-2022-01@cs.toronto.edu (mailto:csc148-2022-01@cs.toronto.edu)</u>) from your UofT email address. 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.

Midterm Remark Requests

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

Remark requests are accepted for two weeks after a test is returned, and will be completed before the final grades are submitted at the end of the term.

You must give a specific reason for your request, referring to a possible error or omission by the marker. Remark requests without a specific reason will not be accepted.

To request a remark for a test, please see the announcement about the test result availability for details.

Academic Integrity

All of the work you submit must be done by you, and your work must not be submitted by someone else. Plagiarism is academic fraud and is taken very seriously. The department

uses software that compares programs for evidence of similar code. Please read the Rules and Regulations from the U of T Governing Council (especially the <u>Code of</u> <u>Behaviour on Academic Matters</u> (<u>http://www.governingcouncil.utoronto.ca/policies</u> /behaveac.htm)).

Please also see the information for students from the <u>Office of Student Academic</u> <u>Integrity</u> (<u>https://www.artsci.utoronto.ca/current/academic-advising-and-support/student-academic-integrity</u>)</u>.

Please don't copy. We want you to succeed and are here to help. Here are a couple of general guidelines to help you avoid plagiarism:

- Never look at any part of another student's assignment solution and never show another student any part of your assignment solution. Sharing is forbidden whether on paper, by emailing files, by pasting into a group chat, or any other means. This applies to all drafts of a solution and to incomplete or incorrect solutions.
- If you find code on the web that solves part or all of an assignment, do not read, use, or submit any part of it! A large percentage of the academic offences in CS involve students who have never met, and who just happened to find the same solution online.
 If you find a solution, someone else will too.
- For tests and assignments, do not seek solutions online, or help outside of the CSC148 course staff. For example, do not post or look at postings on sites like Chegg. These sites contribute to a large number of our academic offence cases each term.
- Online tutors are also often problematic, as they often cross the line and tell students what code to write - and then work with multiple students who all end up submitting nearly identical code.
- The easiest way to avoid plagiarism is to only discuss a piece of work with the CSC148H TAs or the CSC148H instructors.

Accessibility Needs

The University of Toronto is committed to accessibility. If you require accommodations or have any accessibility concerns, please visit <u>http://www.studentlife.utoronto.ca/as/new-registration (http://www.studentlife.utoronto.ca/as/new-registration</u>) as soon as possible.

Students who require accommodations for online tests need to register with Test & Exam Services. We will only be providing test accommodations sent to us that way.

Course Summary:

Date	Details	Due
Tue Jan 11, 2022	Prep 1 quiz: Python Memory Model (https://q.utoronto.ca/courses /249810/assignments/776619)	due by 1pm
Tue Jan 18, 2022	Prep 2 quiz: Object- Oriented Programming (https://q.utoronto.ca/courses /249810/assignments/776615)	due by 1pm
Tue Jan 25, 2022	Prep 3 quiz: Inheritance (https://q.utoronto.ca/courses /249810/assignments/776613)	due by 1pm
Tue Feb 1, 2022	Prep 4 quiz: ADTs (https://q.utoronto.ca/courses /249810/assignments/776618)	due by 1pm
Fri Feb 4, 2022	Assignment 0 (https://q.utoronto.ca/courses /249810/assignments/776624)	due by 8pm
Tue Feb 8, 2022	Prep 5 quiz: Linked Lists (https://q.utoronto.ca/courses /249810/assignments/776620)	due by 1pm
Tue Feb 15, 2022	Midterm (<u>https://q.utoronto.ca</u> /calendar?event_id=492958& include_contexts=course_249810)	12am
Wed Feb 16, 2022	Midterm (<u>https://q.utoronto.ca</u>	12am

Date	Details	Due
	/calendar?event_id=492959&	
	include_contexts=course_249810)	
	Prep 6 quiz: Recursion	
Fri Feb 18, 2022	(https://q.utoronto.ca/courses	due by 1pm
	<u>/249810/assignments/776614</u>)	
	Prep 7: review	
Tue Mar 1, 2022	(https://q.utoronto.ca/courses	due by 1pm
	<u>/249810/assignments/776627</u>)	
	Prep 8 quiz: Trees	
Tue Mar 8, 2022	(https://q.utoronto.ca/courses	due by 1pm
	/249810/assignments/776616)	
	Assignment 1	
Fri Mar 11, 2022	(https://q.utoronto.ca/courses	due by 8pm
	<u>/249810/assignments/776625</u>)	
	Prep 9 quiz: Binary	
Tue Mar 15, 2022	Search Trees	due by 1pm
	(https://q.utoronto.ca/courses	due by Tpm
	<u>/249810/assignments/776611</u>)	
	Prep 10 quiz: Binary	
Tue Mar 22, 2022	Search Trees review	due by 1pm
	(<u>https://q.utoronto.ca/courses</u>	
	<u>/249810/assignments/776622</u>)	
	Prep 11 quiz: Recursive	
Tue Mar 29, 2022	Sorting Algorithms	due by 1pm
	(<u>https://q.utoronto.ca/courses</u>	
	<u>/249810/assignments/776617</u>)	
	Assignment 2	
Fri Apr 8, 2022	(https://q.utoronto.ca/courses	due by 8pm
	<u>/249810/assignments/776626</u>)	
	Lab 1 quiz: Python	
	Memory Model	

Date	Details	Due
	(https://q.utoronto.ca/courses	
	<u>/249810/assignments/776610</u>)	