

# Welcome to CSC148!

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CSC148, INTRODUCTION TO COMPUTER SCIENCE

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# What is CSC148 about?

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By the end of this course, you will be able to:

- read and understand problem specifications,
- design and implement solutions to those problems,
- and evaluate your solutions for correctness, clarity, and efficiency,

and do all of these things **like a computer scientist**.

# What is CSC148 about?

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Object-oriented design

Thinking recursively

Data structures

Program efficiency

Theme: Abstraction

Theme: Professional practices

# Where to find stuff

CSC148 is on [Quercus](#)



[CSC148H1 S 20221 \(All Secti...](#)

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2022 Winter



FAQ and link to Quercus at

<https://www.teach.cs.toronto.edu/~csc148h/winter/>

# Preparation for CSC148

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A recent credit in [CSC108](#) is ideal prep for [148](#), but substantial programming experience (e.g., high school classes or work experience) is often an adequate substitute.

Check the course [syllabus](#) for links to resources and advice!

A [ramp-up session](#) this weekend can help you with Python, if you have experience in another programming language.

# A typical week in CSC148

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CSC148 is *semi-inverted*.

Each week, you'll have:

- Prep readings and exercises
- 3 *lecture hours* blending mini-lectures and active learning
- 2 *lab hours* with larger programming tasks in a smaller group

# Weekly Preps

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Readings are where you'll initially see some of the content.

Accompanied by two kinds of comprehension exercises:

- Short-answer questions (Quercus)
- Programming tasks (MarkUs)

You'll succeed in 148 by:

- Completing preps before lecture



Photo by [Andrew Seaman](#) on [Unsplash](#)

# Lectures

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Lectures are designed to promote active engagement with course content.

Active learning boosts exam grades [1, 2].

You'll succeed in 148 by:

- Actively working on problems in class
- Discussing with others
- Asking for help if you hit a snag

# Labs

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Labs are designed to provide larger technical programming tasks and practice quizzes under the guidance of a TA.

Practice quizzes boost learning skills and exam grades [4].

You'll succeed in 148 by:

- Maintaining your focus on the lab exercises
- Bouncing ideas around with others
- Asking questions of each other and your TA

## Notes about lab logistics

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You must sign up for a **CSC148 TUT** section on ACORN separately (*not* the same as CSC148 LEC).

Labs begin Wednesday!

We'll post lab locations on Quercus.

10 "prep" exercises	10%	Worth 1% each
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.

# Course assessments

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# Assignments

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Each CSC148 assignment is your opportunity to synthesize several course concepts into a fun and complex project.

- A0 is solo.
- For A1 and A2, you can work individually or with a partner.
- Assignments are often the most challenging part of the course.
- *Start early!!!*

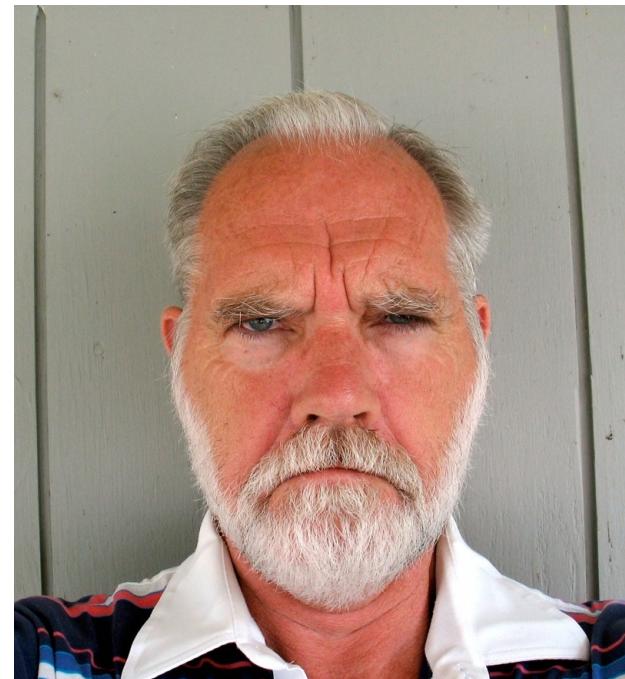
# Academic integrity

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The work you submit must  
be your own.

Your work must not be  
submitted by anyone else.

Academic offences are taken  
very seriously.



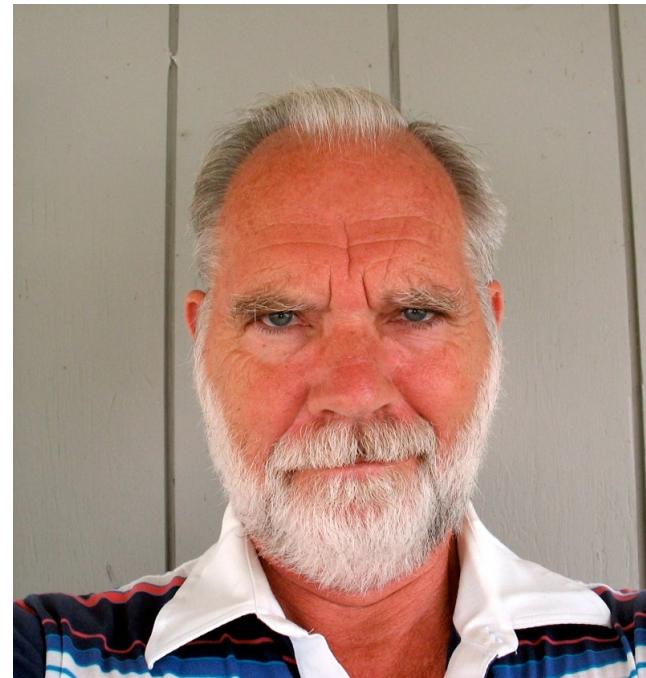
# Academic integrity

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**Do** discuss course concepts, what an assignment is asking, high-level ideas about the solution.

**Don't** show anyone your code (including rough work).

**Don't** copy code from *any* source.



# A word about the Internet

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It is fine to use the Internet to look up:

- Alternate presentation of course concepts
- Programming language documentation ([docs.python.org](https://docs.python.org))

But *don't* do any of the following:

- Copy code you find online
- Ask “How do I write this function...”
- Ask/pay someone to complete your work for you
- Share pieces of your code in a group chat

# Differences vs CSC108

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## Preps

- Readings vs videos
- Culminating exercise is more challenging
- Submit on Markus vs PCRS; must test it yourself

There is no end-of-week “Perform.” We have labs instead.

Writing your own thorough tests is important to your success

# Assignments vs other course work

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Assignments are much larger, by design

- Class work, labs, and preps have limited scope
- Assignments are where you do something substantial
- If you have done the course work, you are ready

You'll succeed by

- Starting early
- Reading carefully
- Asking questions
- Working consistently
- Testing testing testing!

# Getting help: please don't be shy!

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## *Instructor office hours*

- 16 hours during the week

## *TA office hours*

- Schedule intensifies as due dates approach

## *“Group” office hours*

- For sharable questions about course concepts etc.

See Quercus for the full schedule, which varies by week

# Getting help: please don't be shy!

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*Online course forum (Piazza)*

- A good place to ask questions
- A good place to answer questions also!
- Monitored regularly by course staff

## Stuck on software set-up?

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*There are a special office hours this to help with this*

- Thursday, 6-8pm
- Friday 4-6pm

See the Office Hours calendar for the link

# Tips for success in CSC148

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Prepare for, attend, and actively work in lectures and labs.

Start assignments early. Time-on-task isn't enough. You need *elapsed time* to:

- let ideas percolate
- get answers to questions that crop up

Don't spin your wheels. Come talk to us!

Practice, practice, practice. You are learning *ways of thinking* and *new skills*, and mastery of these will only come with lots of practice.

Learn with other students, e.g., by joining a Recognized Study Group



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**Join an RSG starting January 18**

Study with your classmates, make new friends and stay focused while studying online.

[uoft.me/recognizedstudygroups](http://uoft.me/recognizedstudygroups)

# Active Learning

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It is OK to not know how to solve a problem, or get an answer wrong

- ... but don't just wait for the answer without trying to figure out why you are stuck.

It is OK to need to take a short break, so you can refocus on class

- ... but do come back and refocus

It is OK to feel shy or nervous about working with new people

- ... keep in mind that most other people feel that way too!

# Expectations

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We expect that you will be respectful of your classmates' learning. This means:

- Participating in breakout discussions in a helpful and positive way
- Contributing on the chat without monopolizing it
- Minimizing non-class related discussion
- Contributing helpfully and respectfully on the discussion board

We expect that you will behave in a professional manner.



Photo by [Wynand van Poortvliet](#) on [Unsplash](#)

# CSC148 ramp-up session

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If you...

- took CSC108 some time ago and need a refresher, or
- have programming experience, but not in Python

then the [CSC148 ramp-up session](#) is for you!

- A free, 6-hour session
- Running twice: Saturday and Sunday 10-4pm
- Find out more, and register, on Quercus

# Homework

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- Read our FAQ: <https://www.teach.cs.toronto.edu/~csc148h/winter/>
  - Review the course syllabus (on Quercus)
  - If appropriate, sign up for the Ramp-Up Session
  - Complete the CSC148 Software Setup (see the guide on Quercus)
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- **If you haven't yet, complete Prep1! (unmarked, but still do it!!)**

# References

## 1. Active learning:

Freeman et al, “[Active learning increases student performance in science, engineering, and mathematics.](#)” PNAS 111 (23), 2014.

## 2. Diane Horton, Michelle Craig, Jennifer Campbell, Paul Gries, and Daniel Zingaro. 2014. “[Comparing outcomes in inverted and traditional CS1](#)”. *ITiCSE 2014*.

## 3. Taking notes:

Mueller et al, “[The pen is mightier than the keyboard: Advantages of longhand over laptop note taking.](#)” Psychological Science, 2014.

## 4. Practise tests:

Fernandez & Jamet, “[Extending the testing effect to self-regulated learning.](#)” Metacognition Learning, 2016.











