



Pre-Class Activity: Get to know each other!

- What's your name?
- What other courses are you taking this semester?
- Why do you want to study Computer Science?
- What are you most excited about this term?
- How would you combine computer science with another one of your interests, areas of study, or passions?

Welcome to CSC 148!

Introduction to Computer Science



University of Toronto Mississauga,
Department of Mathematical and Computational Sciences



Overview

- Administrative details
- What is CSC148 about?
- Expectations and course logistics



Your instructor

- Who am I?



What is CSC148 about?

- Object-Oriented Design:
 - How to structure a program and write a solution for a real-world problem
 - How to handle unexpected situations
- Testing:
 - How to write maintainable, correct code
 - Representation invariants, preconditions
- Abstract Data Types (ADTs)
 - Represent and manipulate information
- Recursion:
 - Clever functions that call themselves
 - Recursive data structures
- Efficiency:
 - how much resources (time/space) does a program use?



A typical week in CSC148

- We will be using an **inverted model** for CSC148
- Each week, you'll have:
 - **Prep** readings and comprehension exercises
 - Exercises involve a quiz and some practical implementation
 - Must do prep by the deadline! Lectures assume you've done the readings and the prep exercises
 - **3 lecture hours** blending mini-lectures and active learning
 - Problem-solving in groups, using exercise worksheets
 - Discuss with yourselves, with the TAs and instructor!
 - **2 lab hours** with larger programming tasks in a smaller group
 - Work on the task and get help from the TA
 - Mini-quiz + discussion with peers and TA!



Active Participation

- Strong evidence that people learn better or faster by doing rather than passively listening
- Come to class prepared
- *Be involved, participate, ask questions if you are stuck*
- Work on exercises, share with your neighbours, discuss



"I expect you all to be independent, innovative, critical thinkers who will do exactly as I say!"





Activity: Syllabus Q&A

With your table group:

- Download the course information sheet from quercus
- Review it.
- What do you like?
- What do you not like?

Ten minutes! Come up with one comment or question your table would like to contribute.



Contacting Us

- Got a question?
 - Visit piazza! There's a link and signup code on the course website.
 - We will also post announcements there, so visit a couple times a week.
- For more intensive support or if you want to talk through an issue face-to-face ...
 - See course website for times (can attend any instructor's office hours)
- For personal issues like accommodations ...
 - Email the course instructors general email list:
csc148.utm@utoronto.ca



Resources

- Course materials are posted on quercus
 - There's a link to Piazza for questions ...
 - The page also has the syllabus and instructor contact times
 - Finally, there's a weekly schedule with handouts and slides.
- Discussion board - Piazza:
 - Linked from course webpage. Read, ask questions, support one another!



Preps

- Weekly prep **readings** are where you'll learn most of the **content** of CSC148!
 - Very important to do these each week
 - If you do not, you will struggle in this course
- **Comprehension exercises**: accompany the readings
 - Goal: **check your understanding of the basics**
 - Two kinds of comprehension exercises:
 - Short-answer questions (on Quercus)
 - Programming tasks (submit on MarkUs)
- Prep1 is due this Wednesday morning before 9am
- All other preps are due **on Sunday evenings**, with hard deadline **at 9am on Monday morning!**
 - We cannot extend prep deadlines under any circumstances!



Lectures

- Preps cover content and checking your understanding of the basics
- Lectures are designed to promote **active engagement** with course content
 - **Practice** with the concepts
 - **Apply** what you learned,
 - **Discuss** and **analyze**
 - **Implement** solutions
- Lectures are **not** for asking assignment questions or doing other course work
 - You must focus on the lecture activity in class, to make the most of your learning!
 - For other questions: visit office hours or post on Piazza
- You'll succeed by:
 - Completing preps before lecture
 - Solving problems in small groups in lecture
 - Asking and answering questions in lecture



Labs

- Labs are designed to provide **larger technical programming tasks** and **practice quizzes** under the guidance of a TA
- Labs are also not for asking assignment questions!
 - For unrelated questions, come to office hours or use Piazza
 - Focus on the lab activities during the lab! Participation is important for your learning!
 - If you finish early, show your work to the TA and get feedback, try a more efficient implementation (if applicable), try writing tests for your code, debugging, check if you've documented your code well, make sure your partner/group also has a solid understanding of the content, work on the supplementary lab work (where applicable), etc.
- You'll succeed by:
 - Working with a partner/group to bounce ideas around
 - Taking an active role in completing lab exercises
 - Asking questions to each other and your TA
 - Completing the quiz and discussions



Notes about lab logistics

- You must sign up for a **CSC148 PRA** section on ACORN separately (**not** the same as CSC148 LEC).
- Labs begin **this week on Thursday!**
- You **must attend your assigned timeslot** from ACORN!



Course assessments

Assessment	Weight	Comments
10 labs	8% (1% each, first 8 out of 10)	Grade is based on attendance and participation
9 preps (excluding prep1)	7% (1% each, first 7 out of 9)	Auto-graded (implementation exercise due on MarkUs + quiz on Quercus)
2 assignments	25%	15% for A1, 10% for A2
Midterms	20%	10% each, see syllabus for dates
Final exam	40%	You must score at least 35% on the exam to pass the course.



Bonus – surveys

- Three surveys
 - Start, middle, and end of term
- Goal: understand how to better support students in CSC148.
- Bonus: 2%
 - Not part of the 100%, but can make up for marks lost
- You would be helping shape future learning experience for other students and even yourselves in future courses



Assignments

- Each CSC148 assignment is your opportunity to synthesize several course concepts into a fun and complex project
 - You must work individually for all assignments.
 - May sometimes be the most challenging part of the course

- To be submitted on MarkUs



- Some details:
 - 1. Do not wait until a few days before the deadline, **must start early!**
 - 2. Build gradually, test your code!
 - 3. **Start early!!!**
- Late policy
 - ... *we don't take things late.*
 - But if you need some flexibility – if something comes up -- reach out.



Midterm tests and the final exam

- The midterms and exams are both largely based on skills and concepts, not simple facts. They will be written on paper.
- Cramming and memorization are not good strategies for this course.
- Instead, focus on learning and reviewing **steadily each week**, and you'll find you don't need to "study" nearly as much.
 - Do the preps and labs!
 - Attend lectures and participate actively
 - Practice with code on your own outside of class, try different things, explore!
 - Key to success: Be involved every week, not just before a major test!



Academic Integrity: Plagiarism and cheating

- The work you submit must be your own!
- Academic offences are taken very seriously in this course.





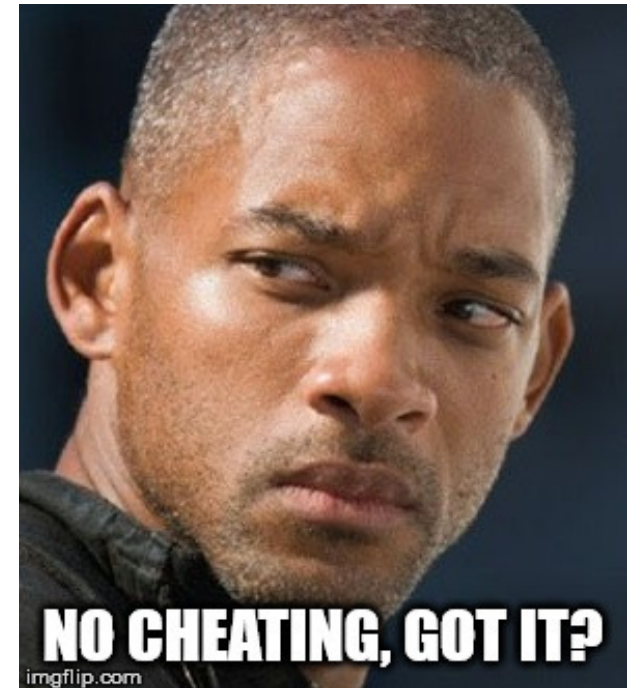
Academic Integrity: Plagiarism and cheating

- Clear distinction between discussing ideas and cheating
- **Do** discuss course concepts, what an assignment is asking, high-level ideas about the solution.
 - Ok to ask questions on Piazza, but **don't** post details about your solution (particularly pieces of your code!)
- **Don't** show anyone your code (including rough work).
 - Don't share your code with others
 - Don't post your work publicly (e.g., Github)!
- **Don't** copy code from **any** source.
 - It's never ok to submit code that is not your own!
- **We will run plagiarism detection software!**



A word about the Internet

- While this course is self-contained, you may find it useful to use the Internet to look up:
 - Alternate presentation of course concepts (e.g., recursion)
 - Programming language documentation (docs.python.org)
- But **don't** do any of the following:
 - Copy code you find online*
 - Ask “How do I write this function...”*
 - Pay someone to complete your work for you





Large Language Models

- Those *'s on the previous page?
- *You are welcome to use generative AI tools to help you learn the material.*
- *You can even use it to help you produce code you turn in.*
 - *If you do this, use a **citation** in a comment to identify code generated by an LLM.*
 - *Understand that you are responsible for what is turned in.*
- Also be mindful that you will be asked to write code on your own on the tests and exam.
 - Generative AI is a tool to support learning, not to short-circuit it.



Overwhelmed? Don't Panic!

- Help is available in many forms
 - Lectures/labs: Ask questions on that topic!
 - Office hours: Instructors' time dedicated specifically to helping you
 - Piazza: Ask and answer questions. Use collaboratively!
 - TA Office Hours:
 - Will be listed on the schedule on quercus near tests and assignment due dates
- Use these resources, please don't be shy!



Activity: Syllabus Q&A

Did you come up with a question we didn't cover? Ask away!



Active Learning

- It is OK to not know how to solve a problem on your worksheet, or to get an answer wrong
 - ... but **don't just wait for the answer** without trying to figure out why you are stuck or asking for help
- It is OK to need to take a short break, so you can refocus on class
 - ... but please **do not distract your classmates** by engaging them in non-course-related activities, socializing, etc.
- It is OK to feel shy or nervous about working with people you don't know
 - ... keep in mind that **most other people probably feel that way too!**
- It is OK to chat with your friends and enjoy their company during class
 - ... but **do not spend time socializing when you should be working on the exercises**, otherwise you are not making good use of your time, and you are distracting others.



Expectations

- We expect that you will be respectful of your classmates' learning
- This means:
 - Participating in discussion at your physical table or breakout room in a helpful and positive way
 - Not using laptops, phones, etc. for non-course purposes during class
 - During work time, minimizing non-class related discussion
 - During teaching time, no discussion at all, so your classmates can pay attention
 - Contributing helpfully and respectfully on the discussion board
- We expect you to behave in a professional manner



Tips for success in CSC148

- ☐ 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 if you're stuck!
 - ☐ But, do your due diligence and work on the problem first, read the handout carefully, debug your code, write tests, etc. !
- ☐ Practice, practice, practice. You are learning **ways of thinking** and **new skills**, and mastery of these will only come with lots of practice
 - ☐ CS skills involve a lot of practice!



Homework

- ☐ Visit the course website on quercus
- ☐ Review the course syllabus and all course policies (on the website)
- ☐ Complete the CSC148 Software Guide (see course website)
 - ☐ You will also get help during the lab with this
- ☐ Complete prep1 before Wednesday, 9am!
 - ☐ Will be released by the first lecture.
 - ☐ No marks for the actual prep this week, but do it anyway to make sure you know how to submit