CSC108H: Introduction to Computer Programming

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About Me

• I’m an “Assistant Professor” in the “Teaching Stream”
• What to call me: Jacqueline, Professor Smith, hey you
• What not to call me: Jackie, “Miss”, Dr Smith, Bro, @%!*&
• Been at U of T since July 2015, University of Alberta before that
• Started my undergrad in humanities, switched after a course like this
• My first language was C++, then Java (Python is way better to learn!)
• Things I like: running, cooking, gardening
• Things I love: my cat

The Chairman

About You

Every year we teach ~2000 students in CSC 108.

Here are some of the things we’ve learned from them:

• Varying levels of programming experience, but no experience is ok!
  - CSC108 assumes you have never programmed before
• Students do better in an inverted classroom
  - we’ll tell you more about that later
• Regular, shorter practice > long programming/cram sessions
  - hence weekly exercises to keep you on track
About You

From the Welcome questionnaire that many of you filled out:

- 2/3 of you are in your first year
- 14% of you plan to study Computer Science…
  - … and 25% are taking CSC108 purely as an elective
- You are majoring in math, stats, physics, psychology, english, music, economics, architecture, life sciences, and more…
- By far the most common theme of what you were most worried about was lack of prior experience

We asked:
“How would you describe your prior experience with programming?”

- 87% of the class has little or no programming experience

About You

Turn to your neighbour (or neighbours) and find out…

- their POSH (or intended POSH)
- their favourite course from last term
- what they hope to learn in CSC108

What’s CSC108H about?

At the end of this course, you will

- know most 🐍 🐍 pythin instructions
- be able to take human problems and write Python programs that solve them
- have a sense of what computer scientists do

```python
def first_even(numbers):
    """(list of int) -> int
    Return the first even number from items. Return -1 if items contains no even numbers.
    ""
    for item in numbers:
        if item % 2 == 0:
            return item
    return -1

>>> first_even([5, 9, 3, 2])
2
>>> first_even([7, 1])
-1
```
Who is CSC108 for?

- Anyone who wants to learn to program!
- People who have never programmed before
- People who don’t really know what programming is

About the Course

Teaches the basics of programming in Python

Is intended for students with no programming experience

3 lecture hours per week

(L9901 is fully online, except the final exam, so there are no lectures for that section.)

Syllabus + Course Website

The syllabus has all the key administrative details.

The course website is here:

http://www.teach.cs.toronto.edu/~csc108h/winter/

We assume that students in CSC108 have never programmed before!

Classroom rule: when the instructor poses a question, if you knew the answer before taking this course, do not answer the question.
Coursework Overview (On-Campus)

<table>
<thead>
<tr>
<th>Work</th>
<th>Weight</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research surveys</td>
<td>1%</td>
<td>Complete both the initial research survey and the final research survey to earn 1%</td>
</tr>
<tr>
<td>Prepare Exercises (11)</td>
<td>5%</td>
<td>Watch videos and complete problems. At start of Weeks 2-12. 0.5% each, best 10 of 11 weeks.</td>
</tr>
<tr>
<td>Perform Exercises (10)</td>
<td>9%</td>
<td>By end of Weeks 2-5, 7-12 1% each, best 9 of 10 weeks.</td>
</tr>
</tbody>
</table>
| Assignments (3)     | 21%    | A1: 5%  
|                     |        | A2: 8%  
|                     |        | A3: 8%  |
| Midterm Test        | 14%    | During lecture time, but in a different room.                          |
| Final Exam          | 50%    | You must get ≥ 40% on the final exam to pass CSC108!                   |

Inverted Classroom

Prepare: watch lecture videos and complete an exercise.

Rehearse: apply the concepts covered in the lecture videos by completing activities of various kinds and working through more complex examples with the support of your instructor and TAs.

Perform: demonstrate your understanding of the material by completing an exercise.

Due Sundays by 9pm  
Completed online

Completed in lecture

Due Friday by 6pm  
Completed online

PCRS

The weekly Prepare and Perform coursework will be completed using an online tool called the PCRS (Programming Course Resource System).

You will login to the PCRS using your UTORid and password.

Each week:

- Prepare - released Thursdays at noon, due Sundays at 9pm
- Perform - released Saturdays at noon, due Fridays at 6pm
- You have as many attempts as you want, whatever your final answer is at the due date is what your mark is based on
- After the due date, you can repeat the exercises for practice

Assignments

Due on Tuesdays before 9:00 pm (sharp)

Handouts will be posted on course website.

Submitted electronically using MarkUs

All assignments must be completed individually.

Late Policy:

1 hour grace period, then 5% per hour for the next 5 hours, 15% per hour for any additional hour
No other late coursework accepted

No other late assignments will be accepted.
No late research surveys will be accepted.
No late exercises will be accepted.
If you can’t finish an assignment, you can earn part marks for a good partial solution.
Of course, illness and other emergencies are another matter; contact the Course Coordinator as soon as possible if you run into this sort of trouble.

Midterm Test

During lecture time
Location will be posted on the course website

Final Exam

Scheduled by the Faculty of Arts and Science
Exam schedule will be posted here:
http://www.artsci.utoronto.ca/current/undergraduate/exams
We can’t change it or allow you to write it at a different time!
All exceptions must be handled through Office of the Faculty Registrar: we can’t set a makeup exam, we can’t waive it for you.

Doing Your Work

Our labs: CS Teaching Labs
Bahen Centre for Information Technology:
BA3175, BA3185, BA3195, BA3200,
BA2200, BA2210, BA2220, BA2240, BA2270
You have 24/7 access using your T-card to these rooms (with some exceptions).

Use your Teaching Labs username to log into the lab computers:
http://www.teach.cs.toronto.edu/resources/cdf_username_lookup.html
Working on your own computer

You can install Python 3 (not 2!) on your own computer.
You can also install Wing IDE 101, the application we'll use to write Python programs.
Instructions for both are on the course website.

Laptops

- You do not need a laptop for this course
  - We will provide materials for you to work on every class - all you need is a pencil or pen
  - Even if you have a laptop and plan to do your coursework on it, we encourage you to work on paper during class
    - Exams are written on paper
    - Writing on paper helps you better understand your code
  - You can use a laptop in class, but be respectful of those around you

Getting Help

Don't spin your wheels, ask for help!
Instructor Office Hours (usually in BA 2230)
108 TA Office Hours (also BA 2230)
CSC Help Centre (also BA 2230)
Textbook
Piazza (online discussion forum)

The schedule is posted here:
http://www.teach.cs.toronto.edu/~csc108h/winter/gethelp.shtml

Office Hours and CSC Help Centre

Drop by 108 Office Hours to get help with the current exercise, assignment, or general course topics.

This should be the first place you go for exercise help.
Exercise-related questions have priority over other questions, but feel free to ask for help with other course material, and the TA will help if they can.

There is also a general CSC Help Centre M-F 2-6pm (starts Jan 10)
Anyone in any first- or second-year CSC class can go ask questions.
Warning: it gets busy!

Office hours get very busy before due dates!
Start early and ask your questions right away!
Office Hours and CSC Help Centre

• Most office hours will begin in the second full week - check the calendar for times and locations

• This week, there will be some TA office hours to help you get Python3 and Wing101 installed on your own computer

• Again, you can find the times and location on the calendar on the course website

Discussion Forums: Piazza

Discussion forums are available for you to post questions about the course material.

Ask questions if you’re confused!

Provide answers if you know them!

Please don’t post solutions (or partial solutions or incorrect solutions) about any coursework until after the due date. Even then, ask your instructor first!

piazza.com/utoronto.ca/winter2018/csc108

Email

Email to instructors should be sent to csc10818s@cs.toronto.edu

It really, really helps us if you start email subjects with “108: ”

Please read announcements on Portal (Blackboard) before sending email

Use a good subject, such as “108: special consideration for A2”

Sign your full name and include your student number and/or UTORid. (There are hundreds of you and some even have the same name!)

Textbook

Be sure to get the 2nd or 3rd edition!

eBook: (3rd edition)

Formats: PDF, ePub, mobi

If you buy the eBook, you can have it right away


Paper version: (2nd edition)

Sold at UofT bookstore, amazon.ca, etc.
Academic Offenses

All of the work you submit must be your own…

Not the work of another student from this term, a student from a previous term, a friend, a tutor, an online source, etc…

… and your work must not be submitted by someone else

The department uses software that compares programs for evidence of similar code

How to be good

To avoid plagiarism:

Never look at another assignment solution - this includes going looking for one online!
Never show another student your work
Applies even to drafts and to incomplete solutions
Applies to on screen and on paper!
Discuss how to solve an assignment only with the Help Centre TAs, the office hour TAs, and the course instructors

Expectations of Me

• Be organized in my lectures
• Post all electronic materials from lecture on the course website
• Provide resources for help (instructor & TA office hours, discussion forum, etc)
• Be respectful of you, your time, and your questions
• Do my best to make lectures clear and interesting
• Will try to keep up with emails…

Expectations of You

• Be respectful of me, TAs, and other teaching staff
• Be respectful of your classmates and their learning (laptops!)
• Try exercises first …
  … but ask for help as soon as you need it - don’t isolate yourself from the course
• Keep up with course resources: website, syllabus, announcements, etc
• Don’t cheat/copy/plagiarize
• Laugh at all my jokes
Tips for Success in CSC108

• Make good use of your class time - worksheets are to help you learn!
• Ask instructor or TAs... that's what we're here for!
• Give yourself time to work through tricky bits — start early!
• Ask for help as soon as you get stuck
  • Instructor or TAs in class
  • Office hours/ Help Centre
• Practice! Try things out, see if they work or not.

What to do by 9pm Sunday

1. Read the syllabus
2. Bookmark the course website
3. Log in to Blackboard portal
4. If you plan to use your own computer, install Python 3 & Wing 101
   • Instructions can be found on the course website under “Software Installation”
   • For help with software installation, visit Office Hours (hours on course website)