

CSC 104H: The Why and How of Computing

University of Toronto, Fall 2011

Course Information Sheet

Lecturer: Tim Capes: capestim@cs.toronto.edu

Lectures and Topics: 6-8PM in BA1130.

Date	Topic(s)	Readings
September 14 th	Course Intro, History, Encodings	Chapter 1
September 21 st	Intro to Programming in JES	Chapter 2
September 28 th	Pictures I & Loops I	Chapter 3
October 5 th	Sound I & Loops II	Chapter 6
October 12 th	Pictures II & Loops III	Chapter 4
October 19 th	Sound II & If Statements	Chapter 7
October 26 th	Pictures III & Sound III	Chapter 5 & Chapter 8
November 2 nd	Midterm & Digital Issues I	Study Instead
November 9 th	Digital Issues II & Digital Issues III	Online Slides
November 16 th	HTML I & HTML II	Chapter 11 & Chapter 12
November 23 rd	Introduction to Computational Complexity: Factors affecting the speed of a program.	Chapter 14
November 30 th	Course Review	Prepare Questions

With the exception of the 1st week it is generally expected that you read the course readings in advance of the lecture. You should come to lecture with an understanding of what parts of the material you find difficult, and questions to look out for. Lecture will contain some live demos, and these examples will be easier to follow if you have looked at other similar examples.

Marking Scheme:

Item	Due Date/Date Written	Topic	Percentage of Grade
Assignment 1	October 12 th by 5pm	Programming	15
Assignment 2	November 9 th by 5pm	Programming	15
Midterm	November 2 nd 8-9	Programming	15
Assignment 3	November 30 th by 5pm.	Digital Issues & HTML	20
Exam	To Be Determined	Whole Cours	35

No exceptions for lateness except: (i) 2 total grace days (ii) University required reasons with appropriate documentation. Assignment 2 is listed before the midterm as I believe you should fully understand all questions on it for the midterm. Assignment 1 will cover the early programming topics;

Assignment 2 covers the rest of the unit. The midterm will be on both programming units.

Assignment 3 will consist of HTML questions and a Digital Issues **ESSAY**.

The Essay:

You will be expected to produce an essay surveying the nature of one of the three digital issues covered in the course; this essay will use the slides as a primary source and you may optionally use other sources. You are required to fully explain the issue to the level of detail presented in class and present a thesis on a proposed solution to the problem. This will be explained in more detail during the course.

Tutorials:

Tutorials are mandatory. Some tutorials will contain new material not covered elsewhere in the course. There will be tutorials on: UNIX; filesystems and hard-drives; problem solving; debugging and some of the listed lecture topics. **All of this material can be on midterms or exams.**

Last Name	TA	Tutorial Room
A to Cho	Michelle Tran	BA1130
Choi to Hognestad	Khurram Rashid	BA2139
Hong to Li	Utkarsh Roychoudhury	BA2159
Lim to Nguyen	Johan Harjono	BA3012
Omary to Suriaputra	Erin Delisle	BA3116
Su To Z (inclusive)	William Zhang	BA2155

Tutorial Start and End names may be adjusted on course-website to balance tutorial sizes.

TA's do not have assigned hours in their contracts for e-mail or other communications. Take advantage of office hours or if questions by e-mail are necessary use capestim@cs.toronto.edu.

Week	Tutorial Topic
1 (September 14th)	CDF, UNIX and Filesystems
2 (September 21st)	Basic Programming Review and Examples
3 (September 28th)	Picture and Loops Examples
4 (October 5th)	Sound and Loops Examples
5 (October 12th)	Advanced Loops -> Practice with index math.
6 (October 19th)	Case-Based Reasoning & If statement examples
7 (October 26th)	Advanced Topics in Pictures & Sound
8 (November 2nd)	User Interface
9 (November 9th)	Midterm Return, Review, and Remark Requests*
10 (November 16th)	HTML Examples and Questions
11 (November 23rd)	Complexity Examples and Questions
12 (November 30th)	To Be Determined**

***= For a question to be remarked on a midterm it must be written in PEN, not crossed out or whited out.**

****= Will be selected based on most difficult topic in course.**

Course Work:

For a University Course, you are expected to be working **roughly 10 hours a week** including lectures and tutorials. If this is a subject you struggle with you might need to work more; if you are overqualified for this course you might find yourself getting away with less. You should plan for this amount of time and be prepared to adjust if necessary.

In particular, **before A1 is due you should have worked 50 hours. Before A1 is out you should have worked 30 hours.** If you put in almost no work in the early stages of the course Assignment 1 will be overwhelming; don't put yourself in this situation. Material is often absorbed by thinking about it gradually over time and trying to cram 4 chapters in order to write an assignment or midterm is not conducive to success.

Serious academic offence warning:

Your work in this course must be your own. **Representing someone else's creative work as your own is an academic offence.** There are a number of rules which you must follow to avoid prosecution.

Rules regarding acceptable levels of collaboration differ among courses and departments; in this course you must follow the CSC 104 rules. Do not:

- Type assignment code, formulas, or other text into a computer with others.
- Produce any part of your assignment submission while meeting with others.
- Look at anyone else's assignment work, completed, or partial, before the deadline.
- Show anyone (other than the instructor or a TA) your assignment work, completed or partial, **until after the solutions are posted.**
- Bring your solution, completed or partial, to any group discussion about an assignment
- Take away any written or electronic material from any group discussion about an assignment

I suggest limiting your collaboration with others to non-assignment material, and asking more specific Assignment questions of me or a TA. **Students have been prosecuted and convicted of academic offenses** for handing in work written for hire, written by personal tutors, copied from the web, or with text “borrowed” from a friend. It is not difficult for graders to detect excessive collaboration. **Both students may be prosecuted if one student copies another; you are responsible for protecting your own work.**

Course Materials:

You will be required to have **headphones or earbuds** to hear sounds in the lab. This applies even if you are using your own laptop as playing sounds can be disruptive to other students work. The course textbook is also REQUIRED:

Introduction to Computing and Programming in Python, a Multimedia Approach, 2nd Edition. Mark Guzdial and Barbara Ericson.

Office Hours:

Professor Capes will have Office hours from Wednesday 5-6pm in BA4261.

There will be at least 2 Lab Hours per week where you can get additional help from a TA.

Times to be determined after week 1 of lecture.

Course Website: www.cs.toronto.edu/~capestim/csc104/

The website will have various announcements, downloadable handouts and links. You are expected to check it regularly. It also has information about your CDF account.