CSC209: Software Tools and Systems Programming

http://www.teach.cs.toronto.edu/~csc209h/fall/

Karen Reid
csc20917f@cs.toronto.edu
BA 4240
Introductions

• Who am I?

• Who are your fellow classmates?

  – find out the names of at least two people in the class that you didn’t know before today

  – ask them to tell you one interesting thing about themselves and offer one in return
Important tip

• Best way to start a conversation or ask a question when you don’t really know the person:

• “Hi, my name is <your name>. I’m in your CSC209 class, and I would like some advice on getting involved in research projects.”

• “Hi, my name is <your name>. I’m in your CSC209 class and I have a question about assignment 1.”
What is this Course About?

• Software Tools
  – Efficiently use the Unix Command Line
  – Understand the shell
  – Use Basic Shell Programming
  – Understand and Use Make

• Systems Programming
  – C
  – files
  – processes
  – communication
Course Information

• Check the course information sheet on the course web page for
  – Office hours
  – Contact information
  – Assignment schedule
• The course web page is the official source of announcements. (Piazza)
  "http://www.cdf.utoronto.ca/~csc209h/fall"
• Make sure you have the prerequisites!
Communication

• **Piazza**
  – Use first for non-personal communication
  – Informative subject lines help

• **Email:** [csc20917f@cs.toronto.edu](mailto:csc20917f@cs.toronto.edu)
  – Email is a formal method of communication:
    • Use proper English.
    • State your question clearly, with enough context.
    • **Sign it** (Name and cdf id are the most useful. Do not include your student number.)

• **Anonymous Feedback**
  – Link from the website

• **In person in Office Hours**
A typical week

- Prep (online)
- Practice (lecture)
- Exercises (lab)
Inverted/Blended Classroom

• Preparation before class (videos & exercises)
• Hands-on Activities in class
  • Need to bring computers to class (or share)
Texts
Assignments

• A1: Very basic C programming  (5%)
• A2: Pointers, Memory Management (C) (10%)
• A3: Fork and pipes (C) (10%)
• A4: Processes and Communication(C) (10%)

• All code must work on the CDF (teach.cs.toronto.edu) servers to receive full marks.
• Code that does not compile on CDF will get 0.
• Don’t wait until the last day!
Submissions which do not compile on the CS Teaching Lab machines will receive a grade of 0
Weekly Exercises/Labs

• Starting this week
• Submitted via git and MarkUs
• 1% per week
• Must submit your work to get marks
• Labs are due by 6:30pm Saturday
• BA 3175/85/95
  – Fridays 10am, 11, or 12pm
Submitting Assignments

- You will be using Git to manage and submit your assignments.
- There is a small Git exercise to help you get started tomorrow.
- Commit and push early and often.
- If you haven’t pushed your commits to the server, you haven’t submitted your assignment.

- *Do not wait until the last minute to try to commit your assignment for the first time.*
Plagiarism

• “The work you submit must be your own, done without participation by others. It is an academic offence to hand in anything written by someone else without acknowledgement.”

• You are not helping your friend when you give him or her a copy of your assignment.
• You are hurting your friend when you ask him or her to give you a copy of their assignment.
What is cheating?

• You are not allowed to
  – copy parts or all of another student’s assignment
  – include code from an external source without attribution
  – get someone else to do substantial parts of your assignment
  – give someone else your solution

• You are allowed to
  – help debug a friend’s program (be careful)
  – help each other understand man pages or example code.
Self Study Topics

- Using Git
- Using Unix - some initial guidance
- Learning an editor – vi, emacs, scite, nedit, sublime text, atom …
- Learning a debugger – ddd, gdb, eclipse, clion, xcode, lldb
Lab 0 – Tomorrow!

setting up your environment
text editor
git
Unix command line