

CSC165 Mathematical expression and reasoning for computer scientists — Fall 2010

SHORT VERSION: Welcome to CSC165, “Mathematical expression and reasoning for computer science.”

We’ll have 35 lecture hours, six tutorials, six tutorial exercises, three assignments, three tests, a course LOG (SLOG), and a three-hour final exam. You’ll find more details on the course web page:

<http://www.cdf.toronto.edu/~heap/165/F10/>

LECTURES: Lectures are Mondays, Wednesdays, and Fridays, 12 noon in BA1180 (Bahen Centre room 1180).

There are six tutorials for you to work on, and discuss, exercises related to course material. Exercises are posted ahead of tutorial, and the TA will make a rough assessment of your grasp of the material during tutorial. Tutorials take place on the Mondays listed in the course calendar from 7:10–9:00 pm, and are assigned alphabetically:

- If the first letter of your surname begins with A–J, BA1130
- If the first letter of your surname begins with K–O, BA2159
- If the first letter of your surname begins with P–Z, BA2165

CONTACT INFORMATION:

INSTRUCTOR: Danny Heap

EMAIL: heap@cs.toronto.edu — put CSC165 in the subject line!

OFFICE: BA4270 (four floor of the Bahen, behind the elevators)

OFFICE HOUR(S): Tuesday 4–5 pm, or by appointment.

PHONE: 416-978-5899

PREREQUISITES: Check the prerequisites for this course at:

http://www.artsandscience.utoronto.ca/ofr/calendar/crs_csc.htm#CSC165H1

If you don’t satisfy these, you need to talk to me the first week of classes to see whether you may remain in the course. If I don’t issue a waiver, the registrar may remove you from the course!

SYLLABUS: We’ll discuss the following topics:

- logic and expression
- proof techniques
- uncomputable problems
- expensive-to-compute problems (complexity)
- floating-point numbers

TEXTBOOK AND COMPUTING: There is no required textbook for this course. Instead, we offer you course notes authored by several instructors of this course (see the web page). Each student enrolled in the course has an account on CDF (Computing Discipline Facility) to tinker with programs, and to electronically submit assignments and exercises. Questions about the management of your CDF account should be addressed to `admin@cdf.toronto.edu`.

COURSE WORK: You'll be responsible for eight (!) pieces of term work, spread through the twelve weeks: six tutorial exercises (counting as one "piece"), three assignments, three tests, and a course LOG (SLOG). Each pair of tutorials is followed by an assignment, then a test. If you do better on a test than on the corresponding tutorials, your tutorial mark is replaced by your test mark. Your best work will receive a weight of 11%, your next best 10%, your next best 9%, your next two best 8%, your next best 7%, your next best 6%, and your next best 5%. That's an average of 8% for each piece of work, and adds up to 64%, which leaves 36% as the weight of the final exam. In addition to this scheme, you must earn 35% of the marks on the final exam to pass this course. Details:

Work	Due	Weight
Tutorial Exercise #1	September 20th	1.33%
Tutorial Exercise #2	September 27th	1.33%
Assignment #1	October 5th	8%
Test #1	October 15th	8%
Tutorial Exercise #3	October 18th	1.33%
Tutorial Exercise #4	October 25th	1.33%
Assignment #2	November 2nd	8%
Test #2	November 12th	8%
Tutorial Exercise #5	November 15th	1.33%
Tutorial Exercise #6	November 22nd	1.33%
Assignment #3	November 30th	8%
Test #3	December 6th	8%
SLOG	December 7th	8%
Final Exam	date and time TBA	36%

LATE WORK, RE-MARKS: I can't accept late or missed work. However, if you have a valid, documented reason for missing a deadline, you won't be penalized for events that are beyond your control. If you feel a piece of your work has been graded unfairly, please submit a written re-mark form within a week.

ACADEMIC INTEGRITY: Our university, including you, is a community of scholars. That means we share ideas here, and we have to do so in a responsible manner. A key ingredient is to always give generous, detailed, credit to others whose work you use, and never attempt to pass off somebody else's work as your own. Assignments and tests are meant to be the work of their authors, either individually (in the case of tests and exercises), or in teams of up to two persons (in the case of assignments). Here are tips to avoid passing off others work as your own, or (just as bad) having your work passed off as somebody else's.

- Don't use other teams' partial or complete solutions. You may discuss GENERAL approaches, take no notes (paper or electronic), and leave an hour of mindless activity between discussions with others and authoring your own work.
- Don't show your work to another team.
- Don't interfere with university computers, other person's files, accounts, or programs.