CSC165 Mathematical expression and reasoning for computer scientists —Winter 2010

Short version: Welcome to CSC165, "Mathematical expression and reasoning for computer science." We'll have 35 lecture hours, six tutorials, three 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/W10/`

Lectures: If you're in section L0101, then your lectures are Mondays, Wednesdays, and Fridays, 11 am in LM161 (Lash Miller room 161). If you're in section L5101, then your lectures are Mondays from 6 to 9 pm in BA1220 (Bahen room 1220).

There are six tutorials for you to work on, and discuss, exercises related to course material. Although we have scheduled two hours for each tutorial, if you finish your exercise early, you are welcome to use the remaining time to discuss course material with the TA, or for whatever purpose you choose.

Contact information:

instructor: Danny Heap

email: heap@cs.toronto.edu

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

office hour(s): Tuesday 4–5 pm, Wednesday 12:30–1:30 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.

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`.

Syllabus: We'll discuss the following topics:

- logic and expression
- proof techniques
- complexity, program running time
- floating-point numbers

COURSE WORK: You'll be responsible for eight (!) pieces of term work, spread through the twelve weeks: three exercises (counting as one "piece"), three assignments, three tests, and a course LOG (SLOG). 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
Exercise #1	January 19th	$2.\overline{66}\%$
Assignment #1	January 26th	8%
Test #1	February 1st	8%
Exercise #2	February 9th	$2.\overline{66}\%$
Assignment #2	February 23rd	8%
Test #2	March 1st	8#
Exercise #3	March 16th	$2.\overline{66}\%$
Assignment #3	March 23rd	8%
Test #3	March 29th	8%
SLOG	April 1st (no kidding)	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.

LECTURE NOTES, EMAIL: I will occasionally have draft versions of my lecture slides posted ahead, so that you can print and annotate them with your own observations. Email is, by design, asynchronous. That means that at the particular time of day or night that you send email, I may be eating, sleeping, listening to music, or attending to other responsibilities. It could take me 24 hours, or longer, to respond. Here are tips to make email correspondence about this course more effective:

- Use your utoronto.ca or cdf.toronto.edu email address.
- Put "CSC165" somewhere in the subject line.
- Compose a short message on a single topic. An open-ended question such as "what's wrong with this proof" is unlikely to receive a useful response.