Numerical Methods — CSC 336

Computer Science | Course Description | Fall 2016

The study of computational methods for solving problems in linear algebra, non-linear equations, and approximation. The aim is to give students a basic understanding of both floating-point arithmetic and the implementation of algorithms used to solve numerical problems, as well as a familiarity with current numerical computing environments.

Instructor: K. R. Jackson, BA 4228, 416–978–7075 or krj@cs.toronto.edu

Office Hours: by appointment

Email: I'll try to answer your email within a day or so. If my reply will be long, I'll probably ask you to talk to me instead about your question. If the answer to your question will benefit many other students in the class, I will likely copy my reply to the whole class (after removing anything from it that will identify you).

I get a lot of email, so it is a good idea to start the Subject line of your email with **"CSC 336"** so that I can easily distinguish it from other email.

Web Page: `http://www.cs.toronto.edu/~krj/courses/336/`

Bulletin Board: I tend not to use bulletin boards. If we do adopt a bulletin board, I'll let you know.

Prerequisite: CSC148H1/CSC150H1;
MAT133Y1(70%)/(MAT135H1, MAT136H1)/MAT135Y1/MAT137Y1/MAT157Y1,
MAT221H1/MAT223H1/MAT240H1.

Exclusion: CSC350H1, CSC351H1.

Lectures: Mondays, Wednesdays and Fridays 11 AM to noon, in BA 1170.

Monday Make-Up Class, Wednesday, Dec. 7: The final lecture of the course will be on Wednesday, Dec. 7.

Course Textbook: Michael T. Heath, *Scientific Computing: An Introductory Survey*, 2nd edition, McGraw Hill, 2002.

I recommend that you buy the version of the textbook from UofT Custom Publishing. It is much cheaper than the version from McGraw Hill and it contains everything you will need for this course as well as CSC 436 (if you take it).

If you get the book elsewhere, make sure you get the **2nd edition**.

Grading:

1. Term Assignments: 30%
   Four assignments due October 12, October 31, November 21 and December 5; each assignment is worth 7.5%.
   (**Note that the due date for Assingment 1 was changed from October 10 to October 12, because October 10 is Thanksgiving Day.**)
2. Midterm Test on October 21: 25%
3. Final Exam: 45%.

To pass this course, you need a total mark of at least 50%, and you must receive at least 35% on the Final Exam.

The Midterm Test and Final Exam are both closed-book: no aids, no calculators, no computers, no tablets, no phones, etc. allowed.

Late Policy: Completed assignments must be submitted at the beginning of the lecture on the date that they are due. Late assignments will be accepted at the beginning of the next lecture (called the "late date" below), with a penalty of 25%.

For example, if you hand in your assignment late, the assignment is out of 60 and you get 48/60 before the late penalty is applied, then you will get a final mark of 33/60 for the assignment. That is,

$$\max(48 - 60 \times 0.25, 0) = 33$$

The max above ensures that you won't get a negative mark for an assignment.

Assignments will be accepted after the "late date" specified above only if you have a very good reason for being late.

Academic Integrity: Please read
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`http://www.cs.toronto.edu/~clarke/acoffences/`
`http://www.artsci.utoronto.ca/osai/students`
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`http://www.writing.utoronto.ca/advice/using-sources/how-not-to-plagiarize`

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