DEPARTMENT OF MATHEMATICAL AND COMPUTATIONAL SCIENCES
UNIVERSITY OF TORONTO MISSISSAUGA

CSC338H5S LEC0101
Numerical Methods
Course Outline - Winter 2018

Class Location & Time	Wed, 03:00 PM - 05:00 PM IB 140
Instructor	Anthony Bonner
Office Location	
Office Hours	Weds 6-7pm
E-mail Address	bonner [at] cs [dot] toronto [dot] edu
Course Web Site	http://www.cs.toronto.edu/~bonner/courses/2018s/csc338/
Teaching Assistant	Hamdi Samir
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Course Description

Computational methods for solving numerical problems in science, engineering and business. Linear and non-linear equations, approximation, optimization, interpolation,integration and differentiation. The aim is to give students a basic understanding of floating-point arithmetic and the implementation of algorithms used to solve numericalproblems, as well as a familiarity with current numerical computing environments.Course concepts are crucial to a wide range of practical applications such as computational finance and portfolio management, graphics and special effects, data mining and machine learning, as well as robotics, bioinformatics, medical imaging and others. [24L, 12T]

Prerequisite: CSC148H5, 290H5/MAT202H5; MAT134Y5/135Y5/137Y5/157Y5, 223H5/240H5
Exclusion: CSC336H1, 350H5,350H1,351H1,CSCC37H3 (SCI)
Distribution Requirement: SCI

Students who lack a pre/co-requisite can be removed at any time unless they have received an explicit waiver from the department. The waiver form can be downloaded from here.

Textbooks and Other Materials

Michael Heath, "Scientific Computing: An Introductory Survey," Second Edition, Mc-Graw Hill, 2002. Roughly the first half of the book will be covered. The relevant chapters are being made available by McGraw Hill at a reduced price.

Assessment and Deadlines

Type	Description	Due Date	Weight
Assignment	Assignment 1	2018-02-06	15%
Assignment	Assignment 2	2018-03-06	15%
Assignment	Assignment 3	2018-04-03	15%
Term Test	Midterm Test	2018-03-28	15%

Final Exam	TBA	40%
	Total	100%

More Details for Assessment and Deadlines

No late assignments will be accepted.

Students must receive at least 40% on the final exam to pass the course.

On all work, 20% of the grade is for quality of presentation, including the use of good English, properly commented and easy-to-understand programs, and clear proofs.

The midterm test and final exam will follow the "I don't know" policy: if you leave a question (or part) blank and write "I don't know", you will receive 20% of the marks for that question (pr part). Otherwise, if you get the answer wrong, you may receive 0 marks.

Penalties for Lateness

100%

Procedures and Rules

Missed Term Work

Requests for accomodation for a missed test or assignment must be submitted as soon as possible and ideally within 72 hours of the due date of the work in question. The initial request should be sent by email, and a follow-up meeting with the instructor will be scheduled once the request is received. Appropriate documentation (like a U of T medical certificate) will be required. The instructor will specify the type of documentation needed once the initial request is received.

A grade for missed assignments will be estimated from other assignment grades. A grade for a missed midterm will be estimated from the final exam grade.

Missed Final Exam

Students who cannot write a final examination due to illness or other serious causes must file anonline petition **within 72 hours of the missed examination**. Original supporting documentation must also be submitted to the Office of the Registrar **within 72 hours of the missed exam**. Late petitions will **NOT** be considered. If illness is cited as the reason for a deferred exam request, a U of T Verification of Student Illness or Injury Form must show that you were **examined and diagnosed at the time of illness and on the date of the exam, or by the day after at the latest**. Students must also record their absence on ACORN on the day of the missed exam or by the day after at the latest. Upon approval of a deferred exam request, a non-refundable fee of $70 is required for each examination approved.

Academic Integrity

Honesty and fairness are fundamental to the University of Toronto's mission. Plagiarism is a form of academic fraud and is treated very seriously. The work that you submit must be your own and cannot contain anyone elses work or ideas without proper attribution. You are expected to read the handout How not to plagiarize (http://www.writing.utoronto.ca/advice/using-sources/how-not-to-plagiarize) and to be familiar with the Code of behaviour on academic matters, which is linked from the UTM calendar under the link Codes and policies.

Final Exam Information

Duration: 2 hours
Aids Permitted: 1 page(s) of double-sided Letter (8-1/2 x 11) sheet

Additional Information

The tutorials may introduce new material not covered in the lectures or the text. Final grades may be adjusted up or down to conform with University of Toronto grading policies.

The "cheat sheet" for the final exam must contain no more than 12,000 characters total. If typed, it should use 12-point font or larger.

Last Date to drop course from Academic Record and GPA is March 14, 2018.