## DEPARTMENT OF MATHEMATICAL AND COMPUTATIONAL SCIENCES UNIVERSITY OF TORONTO MISSISSAUGA

# CSC236H5F LEC0104 Introduction to the Theory of Computation Course Outline - Fall 2019

**Class Location & Time** Wed, 07:00 PM - 09:00 PM IB 150

InstructorSadia SharminOffice LocationDH 3095Office HoursWE 17:00-19:00

E-mail Address s.sharmin@mail.utoronto.ca
Course Web Site https://mcs.utm.utoronto.ca/~236

**Co-Instructor** Ilir Dema **Office Location** DH 3013

Office Hours MO 11:15-12:15, TU 16:00-18:45 E-mail Address ilir.dema@mail.utoronto.ca

Co-InstructorLarry ZhangOffice LocationDH 3070Office HoursWE 15:15-17:00E-mail Addressylzhang@cs.toronto.edu

#### **Course Description**

Mathematical induction; correctness proofs for iterative and recursive algorithms; recurrence equations and their solutions (including the "Master Theorem"); introduction to automata and formal languages. [24L, 12T]

Prerequisite: CSC148H5; MAT102H5

Exclusion: CSC236H1, CSC240H1, CSCB36H3 (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**

CSC236 Lecture Notes: written by David Liu, edited by Daniel Zingaro, available on the course website.

iClicker: available from the UTM bookstore. You are highly encouraged to purchase an iClicker remote for in-class participation. iClicker is a response system that allows you to anonymously respond to questions posed during class and have your responses included in response graphs. You will need to register your clicker using Quercus. The detailed instructions are available on the course web site. If you are unable to purchase a clicker, please contact Ilir to discuss an alternative. In this class, phone apps cannot be used instead of a clicker.

#### **Assessment and Deadlines**

Type	Description	<b>Due Date</b>	Weight
Quiz	Pre-lecture Quizzes	On-going	5%
Class Participation		On-going	5%
Assignment	Problem Set 1	2019-10-04	3%
Assignment	Problem Set 2	2019-10-18	3%
Term Test	Test 1	2019-10-23	15%
Assignment	Problem Set 3	2019-11-08	3%

Term Test	Test 2	2019-11-13	15%
Assignment	Problem Set 4	2019-11-22	3%
Assignment	Problem Set 5	2019-12-06	3%
Final Exam		TBA	45%
		Total	100%

#### More Details for Assessment and Deadlines

Weekly quizzes must be completed the Sunday before the lecture. There is no makeup or other accommodation for quizzes. No late submissions will be accepted.

You may work in a group of up to three students for the problem sets. Please do NOT split up the problem set by question: test questions will be similar to problem set questions, so you must understand the entire problem set!

No late problem sets will be accepted.

Problem sets must be written using LaTeX and you are required to submit both your .tex source and resulting .pdf files.

The two term tests sum to 30%; the test on which you get a higher grade will count for 18% and the other test for 12%.

You must earn 40% or above on the exam to pass the course; otherwise, your final course mark will be set no higher than 47%.

#### **Penalties for Lateness**

No late submissions are accepted.

#### **Procedures and Rules**

#### Missed Term Work

To request special consideration, bring supporting documentation to the instructor in person during office hours at least one week in advance.

In case of illness, bring a U of T medical certificate to the instructor within one week of the missed work. The certificate must specify the exact period during which you were unable to carry out your academic work.

#### **Missed Final Exam**

Students who cannot write a final examination due to illness or other serious causes must file an<u>online petition</u> 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 (<a href="http://www.writing.utoronto.ca/advice/using-sources/how-not-to-plagiarize">http://www.writing.utoronto.ca/advice/using-sources/how-not-to-plagiarize</a>) 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 single-sided Letter (8-1/2 x 11) sheet

### **Additional Information**

n/a

Last Date to drop course from Academic Record and GPA is November 7, 2019.