

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

**CSC263H5S LEC0102
Data Structures and Analysis
Course Outline - Winter 2020**

Class Location & Time Wed, 03:00 PM - 05:00 PM IB 245
Instructor Sushant Sachdeva
Office Location DH-3092
Office Hours Wed 11am-noon, 1:30pm-2:30pm
E-mail Address sushant.sachdeva@utoronto.ca
Course Web Site <https://mcs.utm.utoronto.ca/~263>

Co-Instructor Jessica Burgner-Kahrs
Office Location DH-3064
Office Hours Fri 2-3pm
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Course Description

Algorithm analysis: worst-case, average-case, and amortized complexity. Standard abstract data types, such as graphs, dictionaries, priority queues and disjoint sets. A variety of data structures for implementing these abstract data types, such as balanced search trees, hashing, heaps and disjoint forests. Design, implementation and comparison of data structures. Introduction to lower bounds. [24L, 12T]

Prerequisite: CSC207H5, CSC236H5; STA107H5/STA256H5

Exclusion: CSC263H1, CSC265H1, CSCB63H3 (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

CSC263 Course Notes by David Liu

Cormen, Leiserson, Rivest, Stein: Introduction to Algorithms (3rd edition). MIT Press (2009), ISBN-10: 0-262-03384-4; ISBN-13: 978-0-262-03384-8. Online access to this text is available free to UofT students through the library website.

Assessment and Deadlines

Type	Description	Due Date	Weight
Assignment	Problem Set 1	2020-01-27	10%
Assignment	Problem Set 2	2020-02-24	10%
Assignment	Problem Set 3	2020-03-30	10%
Term Test	At 18:00 in IB110	2020-03-06	20%
Final Exam	To pass the course, you must obtain at least 40% on the final exam.	TBA	50%
Total			100%

More Details for Assessment and Deadlines

You may work in a group of up to three students for the problem sets (one submission per group). Problem sets must be written using LaTeX and you are required to submit both your .tex source and resulting .pdf files. There is a 10% penalty for forgetting to submit both files.

The midterm test takes place OUTSIDE OF LECTURE. It covers material from recent lectures and problem sets.

The final exam is comprehensive and takes place after classes are over. 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%.

There are two options for the weighting of the midterm and final exam; we choose the one that gives you the highest grade:

1. the midterm is worth 20% and the final exam is worth 50%;
2. the midterm is worth 25% and the final exam is worth 45%.

Penalties for Lateness

3 free late days are available cumulatively across all assignments. You can only use entire days on assignments, no partial days.

If a group submits an assignment x days late (or part thereof), all the members in the group lose x free days each.

A group can use x free days on an assignment only if all the members of the group have x (or more) free days remaining.

If a submission is delayed beyond the free late days available to the member of the group with the least free late days remaining, the assignment will be scored as a 0.

Procedures and Rules

Missed Term Work

Requests for accommodation for a missed test or assignment must be submitted as soon as possible and ideally within 24 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 (e.g., a U of T illness verification form) will be required. The instructor will specify the type of documentation needed once the initial request is received.

Re-mark requests must be submitted within one week of receiving the graded work.

Missed Final Exam

Students who cannot write a final examination due to illness or other serious causes must file an [online 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 else's 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.

All of the work you submit must be your own and your work must not be submitted under anyone else's name. Plagiarism is a form of academic fraud. You may only discuss ideas with others in your group or on the discussion board, and the written solutions you submit must be entirely your own work. Submissions will be compared for evidence of similarity.

Final Exam Information

Duration: 3 hours

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

Additional Information

N/A

Last Date to drop course from Academic Record and GPA is March 8, 2020.