Overview

This sheet summarizes information for the course CSC 263 H1F (*Data Structures and Analysis*) during the Fall term of 2014 on the St. George campus. **Please consult the course website for full details.**

Website

https://piazza.com/utoronto.ca/fall2014/csc263h1/home

You are responsible for reading all announcements on the course website; please check at least weekly.

Textbook

- Cormen, Lieserson, Rivest & Stein: *Introduction to Algorithms* 3rd ed., © 2009 MIT Press, ISBN: 978–0–262–03384–8.

- See the course website for additional references, lecture outlines and a free online edition of the textbook (provided by the U of T Libraries).

Contact

Section	Instructor	Email	Phone	Office	Office Hours*
L0101	François Pitt	fpitt@cs.utoronto.ca	416–978–3707	BA 4264	TR 2–4

*outside these hours, please make an appointment

Section	Lectures (Room)	Tutorials (Rooms)
L0101	R 10–12 (LM 161)	T 10 (*to be announced on course website*)

Schedule

Week	Dates	Due	Worth	Lecture Topics [Text Chapters]	Notes
1	Sep 08 – Sep 14			Complexity Review; ADTs [1–3]	
2	Sep 15 – Sep 21	Prob. Set 1	2%	Priority Queues; Heaps [6]	add date (Sep 21)
3	Sep 22 – Sep 28	Prob. Set 2	2%	Dictionaries, BSTs [12.1–12.3]	
4	Sep 29 – Oct 05	Prob. Set 3	2%	Balanced Trees; Augmenting [14]	
5	Oct 06 – Oct 12	Prob. Set 4	2%	Hashing [11]	
6	Oct 14 – Oct 19	Assign. 1	12%	Randomization; Quicksort [5,7]	Thanksgiving (Oct 13)
7	Oct 20 – Oct 26	Midterm	15%	Amortization; Dynamic Tables [17]	
8	Oct 27 – Nov 02	Prob. Set 5	2%	Graphs; Breadth-First Search [22]	
9	Nov 03 – Nov 09	Prob. Set 6	2%	Depth-First Search [22]	drop date (Nov 03)
10	Nov 10 – Nov 16	Prob. Set 7	2%	Minimum Spanning Trees [23,25.2]	
11	Nov 19 – Nov 25	Prob. Set 8	2%	Disjoint Sets [21]	Fall break (Nov 17–18)
12	Nov 26 – Dec 02	Assign. 2	12%	Lower Bounds [8.1,9.1]	
	Dec 08 – Dec 19	Final Exam	45%		

Grading Scheme

- *Each problem set must be completed individually* (to help you cement your own understanding) and is due **by 9:59pm on Wednesday**.
- *Each assignment should be completed in groups of up to four students* (to help you learn better) and is due **by 9:59pm on Wednesday**—see details on the course website.
- Late homework submissions are penalized by 1.5% for every *hour* of lateness (rounded up, to a maximum of 36 hours), except for documented unusual circumstances—see the policy on special consideration ("petitions") below.
- The exact date, time, and room for the midterm test will be posted on the course website.
- For the midterm test, you will be allowed *one 8.5" × 11" aid sheet, **hand**written on **one** side*.
- For the final exam, you will be allowed *one 8.5" × 11" aid sheet, **hand**written on **both** sides*.
- If you earn less than 40% on the final exam, your final course grade will be reduced below 50.

Learning Goals

By the end of this course, students will be familiar with a variety of standard, complex data structures and abstract data types (graphs, dictionaries, balanced search trees, hash tables, heaps, disjoint sets), and with standard complexity measures (worst-case, average-case, amortized). More specifically, students will be able to:

- recognize algorithms that employ each data structure,
- write algorithms that employ each data structure,
- recognize when each complexity measure is most appropriate,
- analyze the efficiency of algorithms using each complexity measure,
- choose and/or modify data structures appropriately to solve various problems.

Petitions

If you are unable to complete homework or if you miss a test due to major illness or other circumstances completely outside of your control, please **contact your instructor immediately**. Special consideration will be considered on an individual basis and will *not* be given automatically. In other words, you risk getting a mark of zero for missed work unless you contact your instructor *promptly*.

In the case of illness, medical documentation must be supplied on the official University of Toronto *Verification of Illness or Injury Form* (see the course website for a link to this document). If you have any concerns or questions regarding your situation, please contact your instructor or your College Registrar—they are well-equipped to help you with anything you may be going through.

Remarking

All remarking requests must be received within **two weeks** of the date when the work was *returned*. It is your responsibility to check course announcements regularly (for work returned electronically) and to pick up your work in lecture, tutorial, or during office hours (for work returned on paper).

It is to your advantage to be specific when you write up your request: either clearly demonstrate that the marking scheme was not followed correctly, or ask questions about specific elements in the marking scheme. Note that marks are awarded based on *merit*, not on need—that is the only fair way to award marks—so statements like "I worked really hard" or "I really need those marks" are not good reasons, unfortunately.

If you are unsure whether or not your work was marked correctly but you have not necessarily found an actual error in the marking, please speak with your instructor.

Collaboration

Everything that you submit for marks (problem sets, assignments, test and exam) must not contain anyone else's work or ideas *without proper attribution*. In particular, the writeup of your homework must be done in isolation from other students (or other groups) and without copying from notes or other sources. This ensures that your solution is truly your own, and that your grade reflects your own understanding of the course material. *To be safe, do not let others look at your solutions, even in draft form and even after the due date.* Please read the `Guidelines for Avoiding Plagiarism` on the course website.

Netiquette

Please use email for personal matters only; post all other questions/comments on the course forum. *Please use a descriptive subject line* for all your electronic correspondence—for email, *always include the course number*. To help prevent your messages being incorrectly tagged as spam, please email only from your CDF or UTORmail account (see `www.utorid.utoronto.ca`). We will generally answer queries within two business days (not counting weekends), although we may take longer during particularly busy times (e.g., around assignment due dates). For your own sake, please do not rely on getting same-day answers (which we cannot guarantee, unfortunately).

10% Rule

If you cannot answer a question (or part of a question) on a test or on the final exam, you will receive 10% of the marks for that question (or part) if you leave your answer **completely blank**.

This does *NOT* apply on homework, where you have the time (and the responsibility) to ask questions and learn how to solve each problem.