Syllabus

Instructors: Karan Singh and Nathan Wiebe

Text: Introduction to Algorithms: Cormen, Thomas H., Leiserson, Charles E., Rivest, Ronald L., Stein, Clifford: 8601419521876: Books - Amazon.ca (Links to an external site.) [CLRS]

Optional:

- [DPV] Dasgupta, Papadimitriou, Vazirani: Algorithms.
- [KT] Kleinberg; Tardos: Algorithm Design.

Resource: Check out Nisarg Shah's 373 course notes / recordings at:
https://www.cs.toronto.edu/~nisarg/teaching/373f21/

Singh	Wiebe
Lectures: LEC0201 M 14 - 15, W 14 - 16, LEC 0301 M 16 - 17, W 16 - 18. zoom: https://utoronto.zoom.us/j/4453788506 Meeting ID: 445 378 8506, Passcode: 459454	Lectures: LEC0101 M 11-12, W 11 - 1 zoom: https://utoronto.zoom.us/j/88616230611 Meeting ID: 886 1623 0611, Passcode: 350614
Tutorials: F: 14-15 (Brustle) Meeting ID: 723 925 4876 Passcode: 470939 F 16-17 (Shirley) https://utoronto.zoom.us/j/89274241175 Meeting ID: 892 7424 1175 Passcode: 302745	Tutorials: F: 11-12 (Wei) https://utoronto.zoom.us/j/82426631606 Meeting ID: 824 2663 1606 Passcode: 373373

Course will be delivered online through the above zoom links until further notice.

Tutorial Materials can be found at: Tutorial PDFs Here

Piazza Link (Discussion Board): piazza.com/utoronto.ca/winter2022/csc373h1/home

Signup Link for Piazza: piazza.com/utoronto.ca/winter2022/csc373h1

Marking scheme

Assignments: 30 % (Best 3 / 4 will be considered)

Exams: 40 % (2 midterms 20% each)

Midterm 1: Feb 11

Midterm 2: Mar 11

Final: 30 %

Marks will be submitted via Markus .

IMPORTANT: 20 % Rule (Borrowed from Allan Borodin)

For all questions you can respond "I do not know how to approach this question" and will receive 20% credit. No credit will be given for any question left blank. For sensible strategies that have small issues partial credit will be awarded. No credit will be given for solutions that are either nonsensical or do not demonstrate understanding of the material in the course.

Week Number	Content		Readings
1	Intro & Divide and Conquer		CLRS Ch 4, DPV Ch 2, KT Ch 5
2	Greedy Algorithms		CLRS Ch 16, DPV Ch 5, KT 4
3	Dynamic Programming		CLRS Ch 15, DPV Ch 6, KT Ch 6
4	Dynamic Programming Ends; Network Flow Starts		CLRS Ch 26, DPV Ch 7(7.1-7.3), KT Ch 7
5	Network Flow Applications		Same as above
6	Linear Programming		CLRS Ch 29, DPV Ch 7
7	Complexity		
8	Complexity		CLRS Ch 34, DPV Ch 8, KT Ch 8
9	Approximation Algorithms & Local Search		CLRS Ch 35, DPV Ch 9, KT 11
10	Approximation Algorithms & Local Search		
11	Randomized Algorithms		CLRS Ch 5, DPV Ch 1, KT Ch 13

12	Review		