CONCORDIA UNIVERSITY DEPARTMENT OF COMPUTER SCIENCE AND SOFTWARE ENGINEERING

COMP 6651 Algorithm Design Techniques Winter 2020

Course Outline

Instructor: Hovhannes Harutyunyan, office: EV 003.155, email: haruty@cs.concordia.ca
Classes: Friday 17:45 - 20:15, room MB-3.210.

Course Description: Mathematical preliminaries; Empirical and theoretical measures of algorithm efficiencies; Optimization and combinatorial techniques and algorithms including greedy algorithms, dynamic programming, branch-and-bound techniques and graph network algorithms; Amortized complexity analysis; String matching algorithms; NP-complete problems and approximate solutions; Probabilistic algorithms.

Textbook: Introduction to Algorithms, third edition, by T. Cormen, C. Leiserson, R. Rivest, C. Stein, MIT Press, 2009.

Course website: https://www.encs.concordia.ca/∼comp6651_1
Please regularly consult the course website for supplementary material, assignments, important dates, and other information about the course.

Attendance: Students are responsible for making themselves acquainted with all materials presented in lectures and assigned for reading.

Assignments: Please submit your assignments to the ENCS's Electronic Assignment Submission (EAS) system: https://fis.encs.concordia.ca/eas/. You will need an ENCS username and password to login (go to H960 to pick up a user name and password).

Marking Scheme:
Assignments - 10%
Project - 20%
Midterm - 25%
Final - 45%

In order to pass the course, a student must pass the term component (Assignments + Midterm) and the Final Exam component.

Disclaimer: In the event of extraordinary circumstances beyond the University's control, the content and/or evaluation scheme in this course is subject to change.