Revised2 Fall 2019 Class, HW, and Quiz Schedule for
CSC317 - Data Structures and Algorithm Analysis

General Information:
Instructors: Dilip Sarkar and Odelia Schwartz

Textbook: Introduction to Algorithms (3rd Edition) by Coremen, Leiserson, Rivest, and Stein

Time/Section and Class room: TR from 8:00 – 9:15 am / N in LC 170
Office hours:
 Dilip Sarkar: Mondays/Thursdays – 10:05 - 11:00 AM & by appointments
 Odelia Schwartz: TBA

Class, HW, and Quiz dates: Distributed and uploaded separately.

Attendance: Strongly recommended, because some materials not in the textbook.

Review/Tutoring Sessions: Thursdays 2 – 4 pm, and Fridays 9-11 am.

Grading: 11 HW sets, 6 Quizzes, and no other exams. HW sets 40% and Quizzes 60%;

Homework: You will have one week to complete each HW set; HW sets must be uploaded at Blackboard by 11:59 pm; sorry, you cannot borrow time from the future --- no late HW sets are accepted for grades. *Imagine how much I would borrow, if I had to pay it after 200 years!*

Quizes: You will have 20 minutes for each quiz; if you have approval for extra time to take exams, you will do only part of the quiz (instructions will be on the quiz).

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Class, HW sets, and Quiz schedule:

Tuesday August 20
1.1 Algorithms and 1.2 Algorithm as a technology

Thursday August 22
2.1 Insertion Sort and 2.2 Analyzing algorithms

Tuesday August 27
2.3 Designing algorithms and 7.1 Description of quicksort algorithm
HW set 1

Thursday August 29
3.1 Asymptotic notations and 3.2 Standard notations and common functions

Tuesday Sept 03
Class cancelled

Thursday Sept 5
9.1 Minimum and maximum and 9.3 Selection in worst-case linear time
HW set 2

Tuesday Sept 10
4.3 The substitution method for solving recurrences and 4.4 Recursion-tree method for solving recurrences
 Quiz 1

Thursday Sept 12
4.5 The master method for solving recurrences
HW set 3

Tuesday Sept 17
5.1 Hiring problem, 5.2 Indicator random variables, and 7.2 Performance of quicksort

Thursday Sept 19
9.2 Selection in expected linear time
HW set 4

Tuesday Sept 24
Quiz 2
Introduction to Dynamic programming: Fibonacci, Thomas Jefferson Cifer, and motivation

Thursday Sept 26
Dynamic programming 15.4 Longest Common Subsequence

Tuesday October 1
Dynamic programming 15.1 Rod cutting
HW set 5

Thursday October 3
Dynamic programming 15.3 Elements of Dynamic programming; review of Dynamic Programming and additional
problems

Tuesday October 8
Greedy algorithms 16.1 Motivation and Activity selection problem
HW set 6

Thursday October 10
Greedy algorithms 16.3 Huffman codes. 16.2 Elements of the greedy strategy (Greedy versus Dynamic and
knapsack problem).

Tuesday October 15
Quiz 3
10 Review of data structures

Thursday October 17 - FALL RECESS

Tuesday October 22
11.1 Direct-address tables and 11.2 Hash tables
HW set 7

Thursday October 24
11.3 Hash functions and 11.4 Open addressing
22.3 Depth-first search

Tuesday October 29
12.1 Binary search trees, 12.2 querying a binary search tree, and 12.3 Insertion and deletion
HW set 8

Thursday October 31
13.1 Properties of red-black trees, 13.2 Rotations
Quiz 4

Tuesday November 5
13.3 Red-black trees, insertion
HW set 9

Thursday November 7
22.1 Representation of graphs

Tuesday November 12
22.2 Breadth-first search
HW set 10

Thursday November 14
22.3 Depth-first search
22.4 Topological sort
Quiz 5

Tuesday November 19
22.5 Strongly connected components
HW set 11

Thursday November 21
24.2 Single-source shortest paths in directed acyclic graphs and 24.3 Dijkastra's algorithm

Tuesday November 26 - THANKSGIVING

Thursday November 28 – THANKSGIVING

Tuesday December 3
Quiz 6
Discussion