CSCE 3110.1  
Data Structures & Algorithms  
Fall 2014  
MW 2:30-3:50, NTDP B190

Instructor: Dr. Robert Renka, NTDP F244, 565-2816  
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Office Hrs: MW 1:00-2:30

Web page: http://www.cse.unt.edu/~renka/3110

Course description: Computer storage structures; storage allocation and management; data sorting and searching techniques; data structures in programming languages.

Course Outcomes:
* Understand dictionary/search data structures (lists, trees, hash tables).
* Understand graph representations and algorithms.
* Understand time and space analysis for both iterative and recursive algorithms and be able to prove the correctness a non-trivial algorithm.
* Be able to translate high-level, abstract data structure descriptions into concrete code.
* Understand how real-world problems map to abstract graph problems.
* Be able to communicate clearly and precisely about the correctness and analysis of basic algorithms (both oral and written communication).


Prerequisites: CSCE 2110

Grading:  
Homework 15%  
Programs 30%  
Midterm exam 25%  
Comprehensive final exam 30%

Homework assignments are due at the beginning of class on the assigned due date. In the rare event that you cannot attend a class, you may email the assignment to me (and the grader), preferably as an ASCII text file, any time before class.

Late homework will not be accepted.

Program source code files must be submitted through Moodle before midnight on the due date in order to avoid a late penalty. The penalty is 5% per day after the due date.

Makeup exams and incompletes will be given only as the result of a verified emergency.

Cheating will result in a course grade of "F". Collaboration
on assignments, copying another student’s work, and allowing another student to copy your work all constitute cheating. For some of the assignments there are textbook solutions on the web. Using those solutions is cheating. Don’t do it! Some of the answers are wrong, and you will likely be caught. Besides, you will learn a lot more by doing the work yourself.

SETE:

The Student Evaluation of Teaching Effectiveness (SETE) is a requirement for all organized classes at UNT. This short survey will be made available to you at the end of the semester, providing you a chance to comment on how this class is taught. I am very interested in the feedback I get from students, as I work to continually improve my teaching. I consider the SETE to be an important part of your participation in this class.

Americans With Disabilities Act:

The Computer Science Department cooperates with the Office of Disability Accommodation to make reasonable accommodations for qualified students (cf. Americans with Disabilities Act and Section 504, Rehabilitation Act) with disabilities. If you have not registered with ODA, we encourage you to do so. If you have a disability for which you require accommodation please discuss your needs with me after class or submit your written Accommodation Request on or before the fourth class day.

Class schedule:

Date    Topic
Aug 25  Chapter 1: Introduction, Review of math and C++
        27
Sep  1   Labor Day (no class)
        3
        8
        10
        15 Chapter 2: Algorithm Analysis
        17
        22
        24 Chapter 3: List, Stacks, and Queues
        29
Oct  1   Chapter 4: Trees
        6  Review
        8
        13 Midterm Exam
        15
        20
        22
        27
        29 Chapter 5: Hashing
Nov  3   (Last day to drop with a W)
Chapter 6: Priority Queues

Chapter 8: Disjoint Sets: Union/Find

Chapter 9: Graph Algorithms

Dec 1
3  Review

8  Final Exam: 2:00 pm - 4:00 pm