

CS 3100/5100

Data Structures and Algorithms

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Office Hours: Wednesday, Friday 2:30 - 3:30 pm or by appointment

Textbook: Data Structures & Algorithm Analysis, 2nd Edition,
M. Goodrich, R. Tamassia and D. Mount, Prentice Hall, 2011
ISBN-13 978-0-470-38327-8.

Workload:	5-6	Programming Assignments	40%
	4-5	Homework Exercises	20%
	2	Examinations	20%
	1	Final Examination	20%

Grading: 90-100 A, 80-89.9 B, 70-79.9 C, 60-69.9 D, below 60 F

<u>Week</u>	<u>Topics</u>	<u>Reading</u>
1	Course Preliminaries, Review of Unix, Introduction to C++	Ch. 1
2	Object Oriented Programming in C++, Memory Allocation	Ch. 2
3	Review of Fundamental Data Structures Arrays, Lists, Stacks, Queues and Deques	Ch. 3, 5, 6
4	Analysis of Algorithms	Ch. 4
5	Trees	Ch. 7
6	Heaps and Priority Queues	Ch. 8
7-8	Search Trees	Ch. 10
9	External Searching (B-Trees)	Ch. 14.3
10-11	Hash Tables, Maps and Skip Lists	Ch. 9
12-13	Graph Algorithms	Ch. 13
14	Sorting Sets and Selection	Ch. 11
15	Strings and Dynamic Programming	Ch. 12