

CSC 210 Spring 2018 - Lecture Plan

Week	Topic	Text	Supplement/Notes
1	Java review	Godfrey Ch 1-6, 8	Add: important terms/concepts
	OOP review	Godfrey Ch 10	Add: important terms/concepts
	C Programming		C Programming Helper
2	Array, ArrayList	Godfrey Ch 7, 18.1	
	Lists	Godfrey Ch 20; Morin Ch 3	
	Java Collections, intro	Godfrey Ch 19.1, 19.2	Intro plus lists
	Stacks and queues	Godfrey Ch 21	Build your own!
3	Java Collections: Intro, List	Godfrey Ch 19.1-2	
	JavaFX	Godfrey Ch 15	
	Hash tables	Morin Ch 5	Add: Goodrich content
	Java Collections: Map, Set	Godfrey 19.3-6	
	Tue: Prog #1 due		Emphasis: Linked list operations in C
4	Algorithm Analysis	Godfrey Ch 17.3; Morin Ch 1	Add: Good stuff in Goodrich text too
	Sort and Search algorithms	Godfrey Ch 17.1, 17.2; Morin Ch 11	Good animations here
	Recursion	Godfrey Ch 16	
5	Tue: Midterm review		Catch-up too
	Thu: Midterm		2 hours is too long. Lecture before?
	Tue: Prog #2 due		Emphasis: Java Collections and JavaFX

CSC 210 Spring 2018 - Lecture Plan, 2nd Half

Week	Topic	Text	Supplement/Notes
6	Trees	Muganda Ch 22.1	Morin Ch 6
	Binary search trees	Muganda Ch 22.1-22.2	Morin Ch 6
	Priority queue, heap	Muganda Ch 22.4	Morin Ch 10
7	AVL Trees	Muganda Ch 22.3	
	Red-black trees	Princeton, Ch 3.3 Balanced Search Tree	Morin Ch 9
	B-tree		Morin Ch 14
8	Graphs structure	Princeton Ch 4 Graphs	Morin Ch 12
	Graphs traversal	Princeton Ch 4 Graphs	Morin Ch 12
	Prog #3 due		Big-O, algorithm design
9	Min span: Kruskal's	Princeton Ch 4.3 Min Spanning Tree	Add: My notes + Goodrich help
	Min span: Prim's	Princeton Ch 4.3 Min Spanning Tree	Add: My notes + Goodrich help
	Shortest path: Dijkstra	Princeton Ch 4.4 Shortest Path	Add: My notes + Goodrich help
10	Ketchup lecture		
	Prog #4 due		Probably a graph assignment
	Final Exam		35 points = 2nd half (30) + 1st half (5)
		Princeton text: https://algs4.cs.princeton.edu/home/	