CS 421
Algorithms

Schedule

Theme	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Foundations, Analysis, and Sorting	Introduction and Overview: Abstraction and Complexity	Stacks, Queues, and Lists	Sequences: Array-Based Containers	Recursion	Binary Trees,	The Heap
	Algorithm Analysis	Study & Homework	Study & Homework	Study & Homework	Reading & Homework	Reading & Homework
Sorting and Searching	Selection-sort, Insertion-sort, Heap-sort, and Shell-sort	Priority Queues, PQ-sorting, Radix-sort, and Generic Bucket-sort	Merge-sort	Quick-sort	Review for Exam	Mid-term Exam
	Reading & Homework	Reading & Homework	Reading & Homework	Reading & Homework	Study	
Techniques and Strategies	Unordered Dictionaries: Log files and Hash Tables	Ordered Dictionaries: Lookup Tables, BST's	AVL Trees	2-4 Trees	Ordered Dictionaries: Red-Black Trees	Graphs & Graph Traversal: DFS (Greedy Algorithms)
	Reading & Homework	Lab, Reading & Homework	Reading & Homework	Reading & Homework	Reading & Homework	Reading & Homework
Design Principles	Graph Traversal: BFS (Template Method)	Weighted Graphs, Shortest Paths & Minimum Spanning Trees	Design Principles Review for Exam	Final Exam		
	Reading & Homework	Reading & Homework	Study			