

Tentative Syllabus and Lecture Plan

Weeks	Part	Topics	Assignments
[2:5]	Foundation (20%)	Data structures, Sorting, Recursion, Divide and Conquer Master method, Substitution method, Recursion tree	Due week 6
[6:8]	Dynamic+ Greedy Algorithms (20%)	Rod cutting, matrix chain, knapsack, activity selection	Due week 9
[9:11]	Graphs (20%)	BFS,DFS,Topological Sort, SCC, Min Spanning Tree, Shortest Path, Network flow	Due week 13
[12:13]	Optimization (20%)	Guest lecturer	
[14:16]	NPC and Approximation (20%)		Due week 17
[17]		recap and questions	

Resources

- Book
- MIT Course
- DAT200
- Canvas
- Lecture sessions