Week	Date	Day	Topic		Homework
1	1/10/2017	Tue	Organizational Items Five Representative Problems	KT 1.2	
	1/12/2017	Thu	Matehmatical Induction Algorithm Efficiency	KT 2.1, 2.2	PS1 Out
2	1/17/2017	Tue	Asymptotic Order of Growth Algorithms in Common Efficiency Classes	KT 2.2, 2.4	PA1 out
	1/19/2017	Thu	Arrays, Linked Lists; Priority Queues Graphs	KT 2.5, 3.1 DPV 3.1	
3	1/24/2017	Tue	Graphs; Breadh First Search	KT 3.2, 3.3 DPV 3.1	
	1/26/2017	Thu	Depth First Search; Post Ordering Parentheses Theorem; Edge Types	KT 3.2, 3.3 DPV 3.2, 3.3	PS1 Due/PS2 Out
4	1/31/2017	Tue	Topological Sort, Connectivy & Strong Connectivity Computing Strongly Connected Components	KT 3.2, 3.5, 3.6 DPV 3.4	
	2/2/2017	Thu	Computing Strongly Connected Components Greedy algorithms: Scheduling	DPV 3.4 KT 4.1	
5	2/7/2017	Tue	Shortest paths Minimum spanning trees	KT 4.4 KT 4.5	PA1 Due/PA2 Out
	2/9/2017	Thu	Minimum spanning trees	KT 4.5, 4.6	PS2 Due/PS3 Out
6	2/14/2017	Tue	Kruskal's algorithm implementation Clustering	KT 4.6, 4.7	
	2/16/2017	Thu	Divide-and-Conquer: Merge Sort Solving Recurrence Relations	KT 5.1, 5.2	
7	2/21/2017	Tue	Counting Inversions Finding closest pair of points	KT 5.3, 5.4	
	2/23/2017	Thu	Fast Integer & Matrix Multiplication	KT 5.5	PS3 Due/PS4 Out
8	2/28/2017	Tue	Midterm Exam		PA2 Due/PA3 Out
	3/2/2017	Thu	Dynamic programming Weighted interval scheduling	KT 6.1, 6.2	
9	3/7/2017	Tue	SPRING BREAK		
	3/9/2017	Thu			
10	3/14/2017	Tue	Shortest paths with negative weights Knapsack Problem	KT 6.4, 6.8	
	3/16/2017	Thu	Sequence Alignment Network flows	KT 6.6 KT 7.1, 7.2	PS4 Due/PS5 Out
11	3/21/2017	Tue	Ford-Fulkerson algorithm	KT 7.1, 7.2, 7.3	PA3 Due/PA4 Out
	3/23/2017	Thu	Bipartite matching, Image segmentation	KT 7.5, 7.10	
12	3/28/2017	Tue	Polynomial Reductions Polynomial Certifiers	KT 8.1, 8.2	
	3/30/2017	Thu	P, NP, and NP-completeness	KT 8.3, 8.4	PS5 Due/PS6 Out
13	4/4/2017	Tue	NP-completeness reductions	KT 8.3, 8.4	
	4/6/2017	Thu	More NP-completeness reductions	KT 8.4	
14	4/11/2017	Tue	Polynomial Multiplication & Evaluation	KT 5.6 DPV 2.6	PA4 Out
	4/13/2017	Thu	Fast Fourier Transform	KT 5.6 DPV 2.6	PS6 Due
15	4/18/2017	Tue	Review		
			Final Exam TBA (Apr 21, 2017 - Apr 28, 2017)		