

Class	Topic	Unit	MT
1	Introduction	1	MT-1
2	Running Time Analysis (Simple codes - independent of machine speeds, why log n, how to calculate in recursion - fib)	1	
3	Asympmtotic Notation	1	
4	Exhaustive Search TSP, Knapsack, Assignment	1	
5	Brute Force, String Matching	2	
6	Closest Pair, Convex Hull	2	
7	Recursion, Factorial, Divide and Conquer	2	
8	Fibonacci, Binary Search	2	
9	Quick Sort, Mergesort	2	
10	Starssens Matrix Multiplication, Master's Theorem	2	
11	Master's Theorem	1	
12	MT-1 Paper Discussion		
13	Dynamic Programmig Recursion, Fibonacci, 01 Knapsack	3	MT-2
14	Principal of Optimality,, Dynamic Programmig Memoization, Fibonacci, 01 Knapsack	3	
15	Dynamic Programmig Tabulation, Fibonacci, 01 Knapsack	3	
16	Coin Change (Minimum Number of Coin, Total Number of Ways)	3	
17	Binomial Coefficient , Floyd's algorithm , Multistage graph	3	
18	Sum of Subsets	3	
19	MCM	3	
20	OBST	3	
21	Greedy, Fractional Knapsack	3	
22	Minium Spanning Tree, Prims Algorithm	3	
23	Union Find, Kruskal's Algorithm	3	
24	Dijekstra's Shortest Path	3	
25	Huffman Encoding	3	
26	Optimal merge patterns	3	
27	MT-2 Paper Discussion		
28	Backtracking, Permutation	4	MT-3
29	NQueen, Sum of Subsets	4	
30	Hamiltonian Cycles	4	
31	Graph Coloring	4	
32	Branch and Bound, 01 Kanpsack	4	
33	Travelling Salesman Problem	4	
34	Assignment problem (Least Cost BB)	4	
35	NP Complete	5	
36	NP Complete	5	
37	NP Complete	5	
38	Approximate Algo	5	
39	Approximate Algo	5	
40	Conclusion		