

**Tentative Schedule for Algorithmics of MCA
(January – April 2016)**

Date	Topic	Remarks
Jan 4	Introduction	
Jan 6	Asymptotic Notation	
Jan 7	Sorting algorithms: Analysis	
Jan 11	Sorting algorithms: Analysis	
Jan 13	Divide and Conquer Strategy: Merge Sort	
Jan 14	Merge Sort	
Jan 18 - 31		No classes due to Bandh
Feb 3	Divide and Conquer Strategy: Quick Sort	Assignment -1 (On Sorting)
Feb 4	Analysis of Quick Sort	
Feb 8	Heaps	
Feb 10	Greedy Algorithms: MST	
Feb 11	Solving Recurrence Relations; Masters theorem	
Feb 15	MST	Assignment – 2 (Using Heaps)
Feb 17	Dijkstra algorithm	
Feb 18	Huffman encoding	
Feb 22	K napsack problem	
Feb 24	Minor-1	
Feb 25	Dynamic Programming: Intro	
Feb 29	Knapsack problem	
Mar 2	All Pairs Shortest Paths	Assignment – 3 (Dynamic Programming)
Mar 3	Chained Matrix multiplication	
Mar 7	OBST	
Mar 9	Discussion : Quiz (LCS and other eg)	
Mar 10	Applications of DFS	
Mar 14	Minor-2	On request, rescheduled
Mar 16	Articulation points	
Mar 17	Topological Sorting, Strongly Connected components	
Mar 21	Minor-2	

Mar 23	Back Tracking Strategy	Design Assignment
Mar 24	Puzzle Examples	
Mar 28	Branch and Bound Strategy	
Mar 30	NP-Completeness: Introduction	
Mar 31	NP-Completeness: Introduction	
April 4	Student Presentations	
April 6	Student Presentations	Design Assignment Presentations
April 7	Student Presentations	
April 11	Student Presentations	
April 13	Student Presentations	
April 14		