

CIS 780: Design and analysis of algorithms
Winter 2008
(Tentative Syllabus)

Lectures	Materials	Chapter	Assignments
Jan 04	Big-O and Big- Ω	2,3,4	
Jan 07	Sort (Heap)	6	Hw1
Jan 09	Sort (Heap, Quick)	7	
Jan 11	Sort (Quick)	7	
Jan 14	Selection	9	Hw2
Jan 16	Selection	9	
Jan 18	Search Trees	12	
Jan 23	Dynamic prog. I	15	Hw3
Jan 25	Dynamic prog. II	15	
Jan 28	Dynamic prog. III	15	
Jan 30	Greedy algorithms	16	Hw4
Feb 01	Fibonacci heap I	20	
Feb 04	Fibonacci heap II		
Feb 06	Midterm		
Feb 08	Union-Find algorithms I	21	
Feb 11	Union-Find algorithms II		
Feb 13	Graphs, DFS	22	Hw5
Feb 15	Topo sort		
Feb 18	BFS		
Feb 20	Min. spanning tree	23	Hw6
Feb 22	Min. spanning tree		
Feb 25	Single source shortest path	24	
Feb 27	Single-All pairs shortest paths	25	
Feb 29	All pairs shortest paths		Hw7
Mar 03	Flow networks	26	
Mar 05	Flow networks		
Mar 07	Geometric problem I	33	
Mar 10	Geometric problem II		Hw8
Mar 12	Review		
Mar 14	Review		

Instructor: **Tamal K. Dey**, Room: **483 DL, 292-3563**.

Classes: **MWF 8:30 at DL 357**

Office hours: **MWF 9:30-10:00 am. or by appointment**

Grading Policy: **Assignments: 30% Midterm: 30% Final: 40%**

Required Text: **Introduction to Algorithms, T. Cormen, C. Leiserson and R. Rivest, MIT press, McGraw-Hill Book Company (2nd edition)**

No late assignment is permitted. All homeworks will be posted on

<http://www.cse.ohio-state.edu/~tamaldey/course/780>