Tentative Course Calendar

Spring Semester 2002		
Week	Mo	Homework
W1	-	
W2	1/28	HW1out,
W3	2/4	
W4	2/11	HW2out, HW1in
W5	2/18	
W6	2/25	HW3out, HW2in
W7	3/4	
W8	3/11	
W9	3/25	HW4out, HW3in
W10	4/01	
W11	4/08	HW5out, HW4in
W12	4/15	
W13	4/22	HW5in
W14	4/29	
W15	5/06	
W16	5/13	FinalExam

The following describes a tentative list of topics that is intended to be covered in class.

Topics to be covered

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W1 : Introduction, Algorithm Design Techniques (Incremental, Divide-and-Conquer)
W2 : Asymptotic growth of functions, Recurrences
W3 : Brief Review on elementary data structures (Stacks, Queues, Trees, Lists)
W4 : Comparison-Based Sorting Algorithms
     (Insertion, Selection, Bubble-sort, Merge-Sort, Quicksort).
     Best-case, Worst-case, Average-case analysis of algorithms
W5 : Priority Queues and Heaps
W6 : Non comparison-based Sorting (Count-Sort, Radix-Sort, and Bucket-Sort).
     Lower bounds on comparison-based sorting. Selection. Selection in
     Linear Time.
W7 : Midterm.
W8 : Search Trees (Binary Search Trees, Balanced Binary Trees).
W9 : Search Trees continued (B-Trees).
W10: Hashing
W11: Graph Traversals (Depth- and Breadth- First Search)
W12: Shortest path algorithms.
W13: Spanning Trees.
W14: NP-completeness.
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