

CSE 5311(002): DESIGN AND ANALYSIS ALGORITHMS
Fall 2007

Tu/Th 11:00AM – 12:20PM (WH 308)

Course Syllabus:

- Review of Asymptotic Analysis and Growth of Functions; and Trees and Heaps
- Recurrences and Sorting Algorithms
- Graph Algorithms and Maximum Flow Networks
- Greedy Algorithms and Dynamic Programming, and Amortized Analysis
- Algorithms for String Matching and Computational Geometry
- Matrix Operations and Linear Programming
- NP Completeness and Approximation Algorithms
- (Time Permitting) Special Topics: Applications of Algorithms in
 - Databases
 - Information Retrieval and Web Searching
 - Data Mining and High-Dimensional Computational Geometry