22C : 231 Design and Analysis of Algorithms
Fall 2006

Class Schedule

1.30–2.20 pm, MWF at 221 MacLean Hall

Instructor

Kasturi Varadarajan: 101E MacLean Hall, 353-2541, kvaradar@cs.uiowa.edu
Office hours: 2.30–3.30 pm, Monday and Wednesday.

Course Web Page

`www.cs.uiowa.edu/~kvaradar/fall2006/algos.html`

Departmental Information

Department of Computer Science, 14 Maclean Hall. The office of the DEO, Prof. James Cremer, is located here.

Teaching Assistant

Rajiv Raman: 101K MacLean Hall, rraman@cs.uiowa.edu
Office hours: 1.30–3.00 pm, TTh.

Content

Our discussion will revolve around five broad themes – (1) Randomized algorithms (2) divide and conquer, greedy algorithms, and dynamic programming (3) network optimization - flows, matching, etc., (4) NP-completeness (5) Approximation or approximate optimization.

Textbook

We will use *Algorithm Design*, by Kleinberg and Tardos, published by Addison Wesley.

Prerequisites

We will assume an exposure to an algorithms course at the undergraduate level. In particular, we will assume that we have seen the idea of analyzing the running time of an algorithm, recurrences, and the big-Oh notation. We will however quickly review these things in the first lectures. We will also assume familiarity with basic data structures such as priority heaps and binary search trees, and basic graph algorithms such as breadth-first-search and depth-first-search.

Grading

This will be based on five assigments (40 percent), the first of which will involve some programming, a midterm exam (25 percent), and an endterm exam (35 percent). The midterm will be held during class hours on Friday, 13th October.

Students with disabilities

I need to hear from anyone who has a disability which may require some modification of seating, testing or other class requirements so that appropriate arrangements may be made. Please see me after class or during my office hours.