

**22C : 231 : 001 Design and Analysis of Algorithms
Fall 2008**

Class Schedule

3.55–5.10 pm, TTh at 105, MLH.

Instructor

Kasturi Varadarajan: 101E MacLean Hall, 353-2541, kvaradar@cs.uiowa.edu
Office hours: 1.30–3.00, Monday and Wednesday.

Course Web Page

www.cs.uiowa.edu/~kvaradar/fall2008/daa.html

Departmental Information

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

Content

For our textbook, we will use “Algorithm Design” by Jon Kleinberg and Eva Tardos. We will focus on the following portions corresponding to the text:

- Divide and Conquer (Chapter 5)
- Randomized Algorithms (Chapter 13)
- Dynamic Programming (Chapter 6)
- Network Flow (Chapter 7)
- NP and Computational Intractability (Chapter 8)
- Approximation Algorithms (Chapter 11)
- Local Search and Nash Equilibria (Chapter 12)

We will also cover some material from research articles not covered in the text. This is just the preliminary plan and it will certainly undergo modifications. We will also not stick to the order suggested above.

Prerequisites

Though we will quickly review this, we will assume that the student is familiar with the idea of analyzing the running time of algorithms. We will assume familiarity with graph search algorithms like breadth-first-search, and experience of, or comfort at, implementing very basic data structures and algorithms.

Grading

The grading will be based on five or six homeworks (40 points), one of which will involve programming, one midterm (25 points) and a final (35 points).

Exam Dates

The Midterm will be in class on Tuesday, October 14. The Final exam is on Monday, Dec 15, between 2.15 – 4.15 pm at a location to be announced later.

Teaching Assistant

Matt Gibson, 101C, MLH, email: mrgibson@cs.uiowa.edu
Office Hours: 1.00–2.00 pm, Tuesday.

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.