22C : 153 **Design and Analysis of Algorithms**
Spring 2002

New Office Hours

TTh 2.00–3.30 pm

Teaching Assistant

Ning Lei, B20J Maclean Hall, nlei@cs.uiowa.edu
Office hours: WF 9.30–11.00 am

New Syllabus

In order to minimize overlap with the undergraduate algorithms course, we have a changed syllabus. This change should make the course more interesting to those who have had undergraduate algorithms. Those who have not had undergrad algorithms will not encounter added difficulty because of these changes. The topics we will cover are as follows.

- Review of foundations: analysis of algorithms, big-Oh notation, recurrences
- Prune and Search technique: computing the median
- Divide and Conquer: matrix multiplication, closest pair
- Randomization: quick-sort and global min-cuts
- Dynamic programming and the greedy scheme
- Poly-time combinatorial optimization: network flows and matching
- Linear Programming
- NP-completeness
- Poly-time approximation algorithms