Computer Science 336 - Spring 2011
Analysis of Programs Honors

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Class: TR 11 - 12:30 in Painter 3.14
Office Hours: T 12:25-1:15

TA 1: Michael Gerbush
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TA 2: Yannis Rouselakis
Office Hours: M 12:30-2:00, W 1:00-2:30
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Course Objective The objective of this course is to familiarize the students with discrete mathematical tools of fundamental importance to computer science. Components include: induction, graph theory, set theory, number theory, combinatorics, probability, and recurrence relations.

Textbook The required textbook for this course is "Discrete Mathematics and Its Applications" by Kenneth Rosen. Students are responsible for all material covered in class, including material that is not in the textbook.

Grading Grading will be roughly distributed as follows. As the course progresses the instructor may make modifications to the weight distributions.

Quantitative Flag The university has asked that students see the following statement:

This course carries the Quantitative Reasoning flag. Quantitative Reasoning courses are designed to equip you with skills that are necessary for understanding the types of quantitative arguments you will regularly encounter in your adult and professional life. You should therefore expect a substantial portion of your grade to come from your use of quantitative skills to analyze real-world problems.

Problem Sets (25%) There will be approximately 8 problem sets assigned. Problem sets will emphasize both class learned in class as well as problem solving skills.

In class exams (35 %) Two in class exams will be given throughout the course. It is important that students are in class for the exams at the scheduled times.

Final Exam (35 %) Two in class exams will be given throughout the course. It is important that students are in class for the exams at the scheduled times.

Participation (5 %) Students will be graded on class attendance and discussion.

Questions Grading and course material questions are best handled by TA office hours for which we have scheduled a large amount. For after hour questions please email `cs336hta@utlists.utexas.edu` , which will be responded to by one of the TAs.

Exam and Homework Policy Homeworks must be handed in at the *beginning* of class on the day that they are due. Late homework will not be given credit. This is necessary so we can hand out solutions as quickly as possible. Students must take the exam on the date it is administered. (Exceptions for medical emergency with doctor's note and religious holidays as noted by university policy.)

Academic Honesty Students are expected to follow the university's academic honesty policy. Students must write up problem set solutions on their own, although some collaboration with other students before the writeup is allowed as dictated in the assignment.

Cheating will result in a failing grade for the class.

Course Schedule The course will roughly follow the schedule below.

- Induction (2 lectures) Ch 4.1-4.3
- Graphs (4 lectures) Ch. 9, 10.1
- Sets (2 lectures) Ch. 2
- Number Theory (3 lectures) Ch. 3.3-3.7
- Counting (4 lectures) Ch. 5, Lecture Notes: `http://courses.csail.mit.edu/6.042/fall02/handouts/lectures/ln8.pdf`
- Recurrences (3 lectures) Ch 7.1 -7.3
- Probability (6 lectures) Ch. 6

Exam Schedule

- Exam 1: Tuesday, March 8th
- Exam 2: Tuesday, April 12th