Course Information

Lecturers:	Prof. Charles E. Leiserson	NE43-371	x3-5833
	Prof. F. Tom Leighton	2-377	x3-3662
		NE43-328	x3-5876
Teaching Assistants:	Stephen Ponzio		
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1 New course

This term is the first time that 6.042J/18.062J has been offered. Consequently, the number of students who will be allowed to take the course this term is limited to 40. Students with weak academic records should not take this course this term, because the teaching may be rough around the edges. The course will be offered again in the fall.

2 Prerequisites

The only official prerequisite for the course is 18.01. Students should be familiar with sequences and series, limits, and integration and differentiation of univariate functions.

It will be very useful for students to have some programming experience, such as is acquired in the course 6.001. Although no programming course is a prerequisite, you should have some experience, since we will at times refer to notions and terminology drawn from computer programming. For example, we will study induction and recursion, and may at times refer to pointers or stacks. If you have no idea what these things are, then you will be at a disadvantage.

3 Lectures and recitations

Lectures will be held Tuesdays and Thursdays from 1:00 to 2:30 in Room 4-270. Recitations will be held once a week for an hour on Fridays. The 3 recitations are scheduled for 1:00 in 26-210, 2:00 in 26-210, and 3:00 in 34-303.

4 Tutorials

Each student must attend a one-hour tutorial on Monday of each week. Each tutorial will be taught to approximately four students. The problem sets contains several problems that are to be prepared for oral presentation in the tutorial. Although no written solutions are required for the tutorial, students will find that bringing notes along will improve their presentation. Also in tutorial, a few simple problems will be given to be worked by students (spontaneously and independently) and subsequently discussed, to ensure each student has a basic grasp of the material. Performance in tutorial is a significant factor in determining your final grade for the course.

5 Handouts and course notebook

In order to keep your handouts organized, get a loose-leaf notebook for the course. All handouts will be on standard three-hole punched paper and will be numbered consecutively. If you miss a handout, you can print one for yourself on Athena. The course locker is not set up yet, but we'll give you instructions as soon as we can. Handouts will also be available in a file cabinet outside NE43-309.

6 Textbook

The textbook for the course is *Discrete Algorithmic Mathematics* by Stephen Maurer and Anthony Ralston, Addison-Wesley (1991). Readings will be assigned from M&R for the first part of the course. The later part of the course (probability) is not well covered by any existing textbook, and so we will provide reading material as handouts.

7 Grading

Grades will be based on tutorials ($\approx 15\%$), written problems ($\approx 20\%$), two quizzes ($\approx 15\%$ and 20%), and the final exam ($\approx 30\%$). The quizzes will be held in the evening on March 2 and April 6 from 7:00–9:00 P.M. Despite the fact that the written problems count for only 20%, they will be central to learning the material.

8 Problem sets

Problem sets will typically be assigned on a weekly basis. We hope to follow the schedule indicated in the Course Outline handout, but difficulties may arise. The problem set itself will provide official due dates.

Problem sets will contain both "oral" and "written" problems. The oral problems are to be prepared for oral presentation in tutorial and will not be handed in. You should be prepared to present your solutions coherently in tutorial, however, and thus you may wish to write up notes for your own use during your presentation. The written problems are to be handed in and will be graded. Written problems will form about 20% of the final grade.

Each written problem is to be done on a separate sheet of paper. Please mark the top of each sheet with (1) your name, (2) the date, (3) the problem number, and (4) the name of your TA.

Try to be as clear and precise as possible in your written solutions. Understandability of the solution is as desirable as correctness. Sloppy answers will be at a disadvantage and may receive fewer points even if they are correct. Do not use red ink to write up your homework; red is our color for grading.

Although the course will be somewhat disorganized this term, because it is the first time we have offered it, we have attempted as much as possible to coordinate the scheduling of lectures, recitiation, and tutorials to fit well with the problem sets. In general, problem sets will be assigned on Tuesday to cover that week's lectures and recitation. The exercises will be due the following Monday for oral presentation in tutorial. The problems will be due in lecture the following Tuesday. Occasionally, this basic plan is altered due to holidays, quizzes, etc. The projected schedule is available on the Course Outline handout.

If you are unable to complete a homework by the date assigned, please talk to the TA *in advance*. If you are unhappy with the way that your homework has been graded, see a TA. Questions, suggestions, or complaints will be welcomed by the course staff.

9 Collaboration

You are encouraged to collaborate in solving the homeworks. If you do collaborate, you must nevertheless write up solutions on your own without help. No collaboration will be allowed on exams. Plagiarism, cheating, and other antiintellectual behavior will be dealt with severely.

If you feel you may have violated this code of ethics, please talk with either Professor Leighton or Professor Leiserson. We can usually work something out without resorting to official action if you come to us. If we find out from someone else that cheating has occurred, it will be the worse for the offender.