Course Information

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1 Prerequisites and "antirequisites"

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.

Students who have taken 18.063 or 18.310 should not take this course. To learn probability, we recommend these students instead take 6.041, 18.440, 18.313, or 18.05. Students can substitute 18.063 for 6.042 in the EECS department M.Eng. and S.B. requirements.

2 Lectures and recitations

Lectures will be held Tuesdays and Thursdays from 2:30 to 4:00 in Room **4-370**. Recitations will be held once a week for an hour on Fridays. The four recitations are scheduled for 1:00 and 2:00 in 26-210, and 2:00 and 3:00 in 34-301. Based on the information you give us today, we will assign recitation sections. In general, recitations will cover new material, so attendance is required.

3 Tutorials

All students must attend a one-hour tutorial every week; attendance will be taken. Each tutorial group will consist of approximately twenty students, which will be broken into groups of 4-5 students. Each individual tutorial group will be given one problem to solve at the beginning of the hour. The group is expected to work together as a team in solving the problem. The TA will then ask one member from one or more groups to present the solutions to the entire tutorial. If the presentation is not satisfactory, the TA may ask the entire group to write up the solutions.

4 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. Handouts will be available in a file cabinet outside room NE43-309.

Handouts in postscript format will also be available on the WWW.
`URL http://theory.lcs.mit.edu/classes/6.042` will point you to the 6.042 home page where you can retrieve the postscript files. You can directly access them at
`URL ftp://theory.lcs.mit.edu/pub/classes/6.042/spring97/handouts.`

5 Books

The textbook for the course is *Discrete Mathematics and its Applications* by Kenneth H. Rosen, Third Edition, McGraw-Hill, Inc., 1995. The recommended textbooks are *The Nuts and Bolts of Proofs* by Cupillari and *The Essentials of Probability* by Lutfiyya.

The Nuts and Bolts of Proofs is recommended for those who are interested in learning more about how and why proofs of mathematical statements work. If you find mathematical proofs difficult (especially at the beginning of the course), you should buy this book. *The Essentials of Probability* will be useful near the end of the course. It does an excellent job of covering the latter material (probability).

All texts will be available at The Coop under the heading 6.042.

6 Grading

The following grading scheme will be used

Problem sets (drop lowest score)	25%
Tutorial (drop lowest score)	20%
Quizzes	30% (each 15%)
Final	25%

Tutorial grades will be 100% for showing up and actively participating. 0% for not showing up. The default grade will be 100% for simply showing up. However, if the TA feels the student is not putting forth a valid effort, he can lower the student's grade.

The quizzes and final **WILL BE HARD**. It is imperative that students do well on the problem sets and tutorials in order to raise their average. Not only are the problem sets and tutorials essential to learning the material, they will be a significant part of your final grade.

7 Problem sets

Problem sets will be assigned on a weekly basis. They will usually be issued in lecture on Tuesday to cover that week's lectures and recitation, and then due in lecture on Tuesday the following week. They will be collected at the start of class. Any problem sets turned in past the start of class will be considered **LATE**. Late problem sets will be penalized 20% of the final grade. Problem sets will not be accepted after the solutions are distributed. Solutions to the problem sets will be distributed in the lecture following the one in which they were due. Please clearly mark your problem sets with (1) your name, (2) the date, (3) problem numbers, and (4) the name of your TA. Also, acknowledge any persons you collaborated with on the problem sets. Your name should appear on every page.

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 will receive fewer points even if they are correct. Do not use red ink to write up your homework, because red is our color for grading.

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

8 Collaboration

You are encouraged to collaborate in solving the homeworks. Study groups provide an excellent means to master the material of the course. You must write up solutions on your own, however. If you do collaborate on homeworks, you must cite all of your fellow collaborators on the written problem set. You must neither copy solutions nor provide solutions to be copied. Your write-up of a problem solution must be yours. No collaboration will be allowed on exams. Plagiarism, cheating, and other anti-intellectual behavior will be dealt with severely. If you feel that you may have violated this code of ethics, please talk with Professor Karger.

9 Office Hours

TA's will be available to answer questions during office hours (to be announced). You are welcome to talk to any TA.

Special office hours will be posted before exams and problem sets that are not due on a Tuesday.