

1211: Introduction to Statistics, Spring 2008
Department of Statistics, Columbia University

Instructor: Julia Salzman

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Office: Room 1011

Class: Monday, Wednesday 6:10-7:25 pm, Room 312, Math Building

Class Webpage

www.stat.columbia.edu/jsalzman/Home1211.html

TAs: TBA

Prerequisites: 1 year of Calculus

Description: This class is an introduction to statistics and probability. It is designed for students who are interested in learning quantitative methods of statistics and basic probability underlying data analysis. Examples will be used to illustrate the methods. Topics include graphical and numerical data summaries, random variation and sampling, one sample and two-sample problems and linear regression.

For many students, developing an intuition for probability and statistics takes time and practice. So, please be prepared for possible work necessary, including independent reading, assignments. Your grade in the class is mostly determined by scores on tests.

Textbook: There is a recommended textbook for the class: Probability and Statistics: Devore, Duxbury. The class will roughly follow the 7th edition of the book, and problems drawn from it. It is up to you whether to purchase the textbook.

Reference texts:

Statistics Freedman, Pisani and Purves: more conceptual and less mathematical than the focus of this class.

Mathematical Statistics and Data Analysis Rice: more mathematical and less conceptual than the focus of this class.

Grading: Homework 15 %; Midterm 35 %; Final 50%

Homework: Problem sets will be posted about once a week and due roughly one week later. Only coherent and legible homework will be graded. Include **your name, course and section**

number, homework number and date on the first page of your homework. Please staple your homework and submit the problems in order. The TAs are not responsible for lost pages. **Make a copy of your homework before handing it in.**

Homeworks will have three sections. Section 1 will NOT be graded; you will get points just for trying to do the problem. Section 2 will be graded problems from the book. Section 3 will require the use of the R statistical package. R is freeware statistical tool similar to Matlab (Octave). If you do not know how to program, please be prepared to learn basic programming skills.

Other information:

- Late homework is not accepted under any circumstance; the lowest homework score, however, will be dropped.
- Your homework and exam solutions are expected to include all calculations and reasoning required to get to your final answer. This allows you to get partial credit (otherwise, a small arithmetical error will make it impossible to get partial credit).
- You may discuss some problems in the homework with other students, but your write-ups should be your own. Copying is not allowed, as it is plagiarism and you will receive no credit. Also, homework scores are a small part of your grade. Doing homework on your own, even if it leads to less than perfect scores can be to your benefit as it will reveal gaps in your own understanding of the material. You can see homeworks as self-tests that prepare you for the more important midterm and final.
- The midterm will be given in class on Thursday, October 25 and cover material up to that covered on Thursday, October 18. The registrar sets the date for the final. There will no make up final or midterm. If you have a conflict with the date of the midterm, speak with me **in person before, i.e. no emails** by September 7. Otherwise, do not enroll in this course.
- All cheating evidence will be forwarded to the Dean's office.
- Lecture attendance is strongly encouraged. Ultimately it is your choice to attend lectures. However, if you don't attend a lecture and want to know its contents, it is your responsibility to ask other students what was covered in a lecture you miss, not the teaching assistants or instructor; our teaching time is limited and we will focus our attention on students who have attended lectures.