STATS 200: Introduction to Statistical Inference (Summer 2013)  
Monday/Wednesday, 12:50–2:05 p.m., Herrin Hall T185

Instructor  Doug Sparks  
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Office  Y2E2 170
Hours  M/W 2:15–3:15 p.m., F 1:00–2:00 p.m.

TA  Ya Le  
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Office  Sequoia 211
Hours  Thursday 11:45 a.m.–1:45 p.m.

TA  Rudy Angeles  
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Office  Sequoia 237
Hours  Tuesday 12:00–2:00 p.m.

Course Description and Objectives

STATS 200 develops modern statistical concepts and methods in a mathematical framework. Topics covered include statistical inference, decision theory, point and interval estimation, hypothesis testing, maximum likelihood, Bayesian analysis, and large sample theory. Other topics may be discussed if time permits.

Prerequisites

STATS 116 (or its equivalent) and a working knowledge of multivariate calculus are essential for this course. While not absolutely required, some familiarity with basic concepts of linear algebra may also be helpful.

Lecture Notes

I will post the lecture notes for each chapter on Coursework before I give the lecture in class (except for the first day). Please be aware that the pre-posted notes are not intended to be a word-for-word transcript of exactly what we discuss in class.

Textbook

The course has a primary text (the “official” text) and a secondary text:

- The primary textbook for the course is *Probability and Statistics* by Morris H. DeGroot and Mark J. Schervish. This book does contain one small gap in the material that we’ll be covering, so I’ll provide handouts in class as needed to fill in this gap.
- A secondary textbook is *Mathematical Statistics and Data Analysis* by John A. Rice.
Exams

Two exams will be given:

- a midterm exam on Wednesday, July 24, from 12:50 to 2:05 p.m.
- a final exam on Friday, August 16, from 12:15 to 3:15 p.m.

Homework

Five weekly homework assignments will be posted to the course website. Assignments are due at the beginning of class (12:50 p.m.) on the following dates (all Wednesdays): July 3, July 10, July 17, July 31, and August 7. You must submit a paper copy of each assignment, i.e., an electronic copy via email is not sufficient.

Late Submissions

You may submit one assignment up to 48 hours late without penalty for any reason you choose. After you use this privilege, homework papers submitted no more than 48 hours late will only count for 80% of whatever they would otherwise receive. Solutions to each assignment will be posted 48 hours after the due date, and no more papers can be accepted beyond this point.

Homework Collaboration Policy

You are free to work together with other students on the homework assignments. However, you must write up the solutions yourself.

Grading

The components of your grade will be weighted as follows:

- 25% homework (5% per assignment)
- 25% midterm exam
- 50% final exam

Email Policies

- Please write “STATS 200” at the beginning of the subject line of any email sent to the instructor or TAs.
- Questions that are complicated, highly technical, or require extensive mathematical notation are typically too difficult to answer over email. Please ask these questions in person during class or office hours.