Stat 245: Statistical Theory and Methods II

Instructor: Chao Gao

Spring 2017

Lectures TR 9:00–10:20 am, Eckhart 133

Textbook Mathematical statistics and data analysis (3rd ed.), by John A. Rice

Pre-requisites This is a follow-up course of Stat 244. Students are also required to be familiar with calculus, linear algebra, basic programming and probability theory. There will be no tutorial of the statistical software R during the course.

Course Description This course is the second of a two-quarter introduction to the principles and techniques of statistics: the first quarter covers tools from probability and the elements of statistical theory, while the second quarter focuses on statistical methodology, including the analysis of variance, regression, correlation, and some multivariate analysis. Some principles of data analysis are introduced, and an attempt is made to present the analysis of variance and regression in a unified framework. Although theoretical concepts will be discussed, computers will also be used to practice their application. Most of the material covered in this course will be from but not be limited to Chapters 6, 8, 10, 12, 13 and 14 of Rice.

Grading Participation 0% + Homework 30% + Midterm (TBD) 20% + Final (TBD) 50%

Homework and Exam Homework assignments are given once a week and typically due on Tuesdays by the end of lecture, unless otherwise noted. Assignment will be posted online. Each student must pursue his or her academic goals honestly and be personally accountable for all submitted work. Students are encouraged to discuss problems together, but each student must hand in their own original work and source codes. For example, it's perfectly fine to ask how to implement a function in R, but sharing source codes with each other directly is not acceptable. Please staple your homework submissions, and remember to include your full name, university ID number and course number on all assignments. Show all work to receive full credit. Anything that is illegible or disorganized will be marked as incorrect, so please be neat.

Late assignments will not be accepted. If there is an emergency that may prevent you from meeting a homework deadline, please contact me as least one week before the deadline for possible extension. In any situation, homework submitted during the extended period will only receive at most half of the full credit.

There will be no makeup exams for the midterm or final.

Teaching Assistants & Office Hours We have two teaching assistants.

1. Ran Dai [randai@galton.uchicago.edu]
2. Enakshi Saha [enakshi@galton.uchicago.edu]

The two teaching assistants will grade your weekly homework. All questions related to homework should be sent to the TAs. Both TAs and the instructor will hold weekly office hours.

Ran Dai	Monday 6-7pm	Jones 226
Enakshi Saha	Monday 12-1	Jones 226
Chao Gao	Monday 11-12	Jones 314