

Statistics 20, Fall 2015

Instructor: Hank Ibser **Lectures:** TuTh 11-12:30, 100 Lewis **Email:** hank@stat.berkeley.edu

Office Hours: TuTh 9:30-10:30, Wed 10-12, in 349 Evans Hall.

Text: *Statistics*, 4rd ed. by Freedman, Pisani, Purves, We'll cover most of chapters 1-5,8-21,23, and 26-29. The trial edition is OK, but 3rd edition is not. Additional materials will be posted on bcourses. See schedule below for more detail.

Grading: 10% homework, 10% quizzes, 20% for the midterm, 60% final. Grades are curved.

Homework: Due in section. Your lowest 2 homeworks will be dropped. No credit for late homework unless prior arrangements are made with your GSI. Solutions will be posted in a glass case in the middle third floor hallway of Evans Hall.

Quizzes: There will be 6 quizzes in discussion section on the WEDNESDAYS of the weeks listed on the schedule. The lowest quiz score will be dropped.

Exams: See dates for exams below. If you are unable to attend any of the exams, please let me know as soon as possible. Makeup exams will not be given. At least a week before the midterm and two weeks before the final I'll post a study guide which will detail what topics will be on the exam. It will also include many solved problems from old exams.

Lab section: The lab section (which I'll refer to as discussion or section) will mostly involve solving extra problems from the book. Whether you take advantage of the extra opportunity to learn is up to you; attendance is only mandatory on quiz days. However, I do ask the GSIs for feedback at the end of the semester regarding students that are on the border between two grades so it may help your grade for you to come and participate. First sections will meet Monday August 31.

Calculator: You'll need one with at least a square root key. Bring it to quizzes and exams.

Comments: In order to learn the most from this class, skim the relevant reading once before lecture and then read it more thoroughly as you do the homework. The text emphasizes intuition so you should think about why things are done the way they are as you study the material. Mastering the formulas and techniques will not be enough to excel in this class, you also need to understand the ideas behind the formulas and when it is not appropriate to use them.

Note that in the schedule below, the date under Week is the date of the MONDAY of that week.

Schedule: (TENTATIVE, come to lectures or see website for updates)

| Week | Topics(Tu/Th) | Reading(Tu/Th) | Quizzes |
|-------|--|--------------------------|----------------|
| 8/24 | Intro Thursday 8/27 | | |
| 8/31 | Histograms,Avg,Median/SD,Norm App | 3.1-4,4/5 | |
| 9/7 | Summation / More Summation | handout/same | Quiz 1 Wed |
| 9/14 | Correlation / More Corr,Sum and Corr | 8.1-2,4/9,handout | |
| 9/21 | Regression / RMS Error | 10/11 | Quiz 2 Wed |
| 9/28 | Reg Line,Obs Studies,Expts / Probability | 12,8.3,1,2/13,14,handout | |
| 10/5 | More Prob, Binomial / Review Prob | same,15 | Quiz 3 Wed |
| 10/12 | Review / Midterm | | MT Thurs 10/15 |
| 10/19 | Law of Avgs,Box Models/EV,SE | 16/17 | |
| 10/26 | Prob Hist, Normal Approx / SE for % | 18/20.1-3 | |
| 11/2 | Sampling/Confidence Intervals | 19/20.4-5,21 | Quiz 4 Wed |
| 11/9 | CIs for Avgs / Hypothesis Tests | 23/26.1-5 | |
| 11/16 | t test / Two sample z | 26.6/27 | Quiz 5 Wed |
| 11/23 | Chi-square / Thanksgiving | 28.1-3/none | |
| 11/30 | More Chi-sq, More HT / Review | 28.4,29.1-2,5-6 | Quiz 6 Wed |
| 12/7 | lecture and section Mon only | RRR week | |
| | FINAL Wed 12/16,8-11am,location TBA | | |