STATISTICS 110/201 Fall 2017 STATISTICAL METHODS FOR DATA ANALYSIS I

Lectures: A: Mon, Wed, 9:30 – 10:50; **B:** Mon, Wed 12:30 – 1:50; both in <u>174 ICS</u> **Discussions:** Fri, <u>103 ICF</u>; **A1:** 9-9:50; **A2:** 10-10:50; **B1:** 11:00 – 11:50; **B2:** 12:00 – 12:50

Instructor: Professor Jessica Utts, Department of Statistics

Office location: 2212 Donald Bren Hall

Email: jutts@uci.edu; Phone: (949) 824-0649 (but email is better)

Office hours: Mon, Wed 2:00 – 3:30pm in 2212 DBH; also available by appointment.

TAs and office hours, in 2013 Donald Bren Hall (DBH)

Section A: Wendy Rummerfield	Section B: Brandon Berman
wrummerf@uci.edu	bermanb@uci.edu
Tues 9-10:30, Thurs 2-3:30	Mon 3:30-5, Fri 1-2:30

Office hours by day of week (Utts in 2212; TAs in 2013 Donald Bren Hall)

Mon	Tues	Wed	Thurs	Fri
2-3:30, Utts	9-10:30, Rummerfield	2-3:30, Utts	2-3:30, Rummerfield	1:00-2:30, Berman
3:30-5:00, Berman				

Textbook: *Stat2: Building Models for a World of Data* by Cannon et al.

Website: http://www.ics.uci.edu/~jutts/110 The website has general information and will be updated regularly with homework assignments and other useful information.

Textbook website: http://www.stat2.org, has data sets (with no access code needed).

Course Goals and material to be covered: We will cover Chapters 0 to 4, and parts of Chapters 5 to 8. The goal of this course is to enhance your data analysis skills and your understanding of statistics. Two common areas of statistical analysis will be covered: Regression and Analysis of variance (ANOVA), with more time spent on regression. Emphasis is on applications and understanding, not on theory.

Prerequisite: Knowledge of basic statistics at the level of Statistics 7. *This is a necessary prerequisite, and I will assume that you are strongly familiar with the material from Statistics* 7.

Computing: We are using free statistical software called R, and a free add-on called R Studio. You can download these onto your own computer (PC and Mac). Instruction will be provided in class and/or in discussion sections. The programs are available in the ICS computer labs as well, but to use them there you need to set up an account with ICS. Instructions for doing so are provided at this link: http://www.ics.uci.edu/~lab/students/acct_activate.php (also linked to the course webpage). More information on using R and R Studio are on the course webpage.

Discussion Sections: Friday discussion sections will be used for a variety of purposes including computer instruction, review, and possibly, presentation of new material if we get behind schedule. Consult the detailed schedule on the course webpage for updated information.

HOMEWORK, EXAMS AND GRADING:

Your individual homework and exam ID code: You have each been assigned a unique homework/exam ID code, which is a letter (A or B) indicating your Section, followed by a number from 1 to 130. The list of codes is linked to the course webpage, listed using the first 6 digits of your UCI Student ID number. Please write your ID code and your name in the upper right corner of your homework when you turn it in. Homework will be returned in class, using your ID code.

Homework (30%): Homework will be assigned on Wed and will normally be due the following Wed by 5pm, with one exception (due to the midterm) as noted on the daily calendar on the webpage. Assignments and due dates are given on the course webpage. Homework can be turned in during class, or in the slots marked Stat 110 in the alcove across the hall from 2202 DBH by 5:00 pm on the due date. Make sure you use the correct Lecture A or B slot.

Midterm Exam (30%): Given Wed, Nov 1, covering material through Friday, Oct 27.

Final Exam (40%): Lecture A: Wed, Dec 13, 8-10am; Lecture B: Mon, Dec 11, 1:30-3:30pm

POLICIES:

Homework Honesty Policy: Although you are encouraged to study with other students and to discuss homework with them, you are each expected to do your own work, including your own computing work and R code. If you are assigned a problem that has an answer in the student solutions manual or the back of the book, you are expected to write the solution in your own words, not copy it from the book. And if solutions exist on a website somewhere it is a violation of the honesty policy to copy them. *Violations of these expectations will result in forwarding your name for disciplinary action*.

Policy on changing homework and midterm grades: Except for administrative errors (such as adding up points incorrectly), *no homework or midterm grades will be changed during the quarter*. Instead, at the end of the quarter (by the end of the day of the 2nd final exam) you will be given an opportunity to turn in any grade disputes with an explanation in writing. A cover sheet is linked to the class website for you to show the total number of points in dispute. After calculating grades, I will see if that number of points would change your letter grade (including +/-). If the answer is yes, I will carefully consider your rationale. *For this reason, it is important that you pick up your graded homework and exams and retain them until the end of the quarter.*

What to bring (and not bring) to exams: The midterm and final exam will both be *open notes*. You may bring your notes, but not your book. (I would have open book exams, but not all students have their own copy of the book.) You also will need a *basic calculator* (and my bring a more complex one). You may *not* use the calculator on your phone or any other device that connects to the internet.