Statistics 431

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StatLab: Help is available in 462 JMHH  
Hours: 11:00 – 5:00 (Monday, Tuesday, Thursday and Friday)  
1:00 – 3:00 and 4:00 – 6:00 (Wednesday)

Homework: Homework will be assigned regularly. Most homework assignments will be from the textbook, but there will also be three special assignments (“mini-projects”). These special assignments will be handed out in class. They should be done using the statistical software JMPIN (or any other software)

Exam:  
Midterm: Oct. 1, 6:00 – 7:30 pm  
Final (comprehensive): Dec. 18, 11:00 – 1:00  
(All the exams will be semi-closed book, i.e. a certain number of pages of notes are allowed.)

Grade allocation:  
Homework and Projects: 30%  
Midterm: 30%  
Final: 40%
Classroom Lecture Topics (keyed to the text, TENTATIVE)

9/4 – 9/11 7.1, 7.2 and 7.3 (Omit “Bootstrap” on p. 289, “One sided confidence intervals on p. 296 and “Tolerance Intervals” on p. 305.)

As background preparation you may want to review material about probability theory and common probability distributions. See especially Section 3.4 (binomial distribution), Section 4.3 (normal distribution), and Section 5.4 (central limit theorem).

9/16 – 9/18 Chapter 8.1, 8.2, 8.3, 8.4 and 8.5. (You do not need to read “The Likelihood Ratio Principle” on p. 354; I will say a few things about this procedure in class.)

9/23 – 9/25 Chapter 9.1, 9.2 and 9.3, Chapter 9.4 and 9.5

9/30 Catch up and Review.

EXAM WEDNESDAY EVENING, Oct. 1
6:00pm – 7:30 pm

10/2 Chapter 10.1 and 10.3. (Omit the material on “Random Effects Models”.)

10/7 – 10/16 Chapter 10.2 and “Multiple Comparisons” in 10.3; 11.1 and 11.2 (Omit “Models with Mixed and Random Effects”.)

10/21 – 10/23 Finish Chapter 11.2. (Omit Chapter 11.3 and 11.4.)

10/28 – 10/30 Chapter 12.1 and 12.2

11/4 – 11/6 Chapter 12.3, 12.4 and 12.5

11/11 – 11/13 Chapter 13.1, 13.2 and 13.3

11/18 Chapter 13.4, 13.5

11/20 – 11/25 Chapter 14.1 and 14.3. (Section 14.2 can be omitted; we will not use this procedure for testing “goodness-of-fit”. Section 14.2 contains a brief discussion of “maximum-likelihood”, and this material may be helpful (but not required) background for Section 14.3.)

12/2 – 12/4 Logistic regression (Material to be distributed in class.)