

STAT 701, Applied Statistics II -- Spring 2007

Instructor:

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Course Web Page: <http://www.stat.sc.edu/~hitchcock/stat701.html>

Classes:

Meeting Times:
MWF 11:15AM-12:05PM, LeConte College, Room 210A

Office Hours:

Mon 10:00-10:50, Tue 1:30-2:30, Wed 10:00-10:50, Thu 11:00-12:00.
Please feel free to make appointments to see me at other times.

Textbook:

Applied Linear Statistical Models, 5th edition, by Kutner, Nachtsheim, Neter and Li.

Purpose: To expand the methodological abilities of future scientists in the experimental, social, and professional sciences beyond what is usually learned in a basic course.

Prerequisite: Passing grade in STAT 700 or equivalent or consent of department.

Course Outline: Continuation of STAT 700. Simple linear regression, correlation, multiple regression, fixed and random effects analysis of variance, analysis of covariance, experimental design, some multivariate methods, various statistical packages. Not to be used for M.S. or Ph.D. credit in statistics or mathematics. A detailed outline is given on the course web page.

Homework:

Homework exercises from the textbook are assigned on the course web page. Due dates are given on the course web page. Late homework will be penalized.

You may help each other with homework problems, but each student's homework must be written up independently. If homework is found to have been copied, all students involved will receive a 0.

Everyone is expected to do every problem. Please write up homework papers neatly and clearly. Many problems on the exams will be similar to homework problems.

Project:

A project involving the analysis of real data using methods learned in this class will be due near the end of the semester. More information will be given out later.

Exams:

There will be two in-class midterm exams and a final exam on Friday, May 4 - 2:00 p.m. Exams may not normally be made up, except in extreme circumstances, for which written documentation of excuse (doctor's note, funeral notice, etc.) is required. If you suspect you may miss an exam day, it is important to contact me well in advance of the test date.

Grading:

The course grade will be based on homework/quizzes (20%), 2 midterm exams (20% each), and a final exam (25%) and a data analysis project (15%). A course average of 90-100 will result in an A, 87-89 a B+, 80-86 a B, etc.

Computing:

Some problems in this course involve significant computations, and for these, we will learn to use the software package SAS. You will have an account on the MATHSTAT domain. Currently the computers in LC 124, LC 303A and PSC 102 have SAS. Student copies of SAS for home use are also available for purchase; for information, call Barbara Koski (803-777-4657) at USC Computer Services (corner of Blossom and Sumter).

It is not assumed that you have much previous experience with SAS. In many industries and jobs, SAS is the standard statistical computing package used, and this course will introduce you to some of the most common SAS procedures.

For many examples, the code for analyzing the data in R will be given. R is a free, open-source statistical programming language. Details about how to download R for free onto your home computer are posted on the course web page.

Tentative Course Schedule: MWF, January 17 through April 30, except:

No class (MLK Day): January 15 (Monday)

No class (Spring Break): March 12, 14, 16 (Monday, Wednesday, Friday)

Monday, Feb. 19 (tentative): Exam 1

Wednesday, March 28 (tentative): Exam 2

Friday, May 4 (2:00 p.m.): final exam

**** Homework Due Dates** will be posted on the course web page with each homework assignment.