

Course Information for 22S:165 Applied Statistics II (Experimental Design) Spring 2007

Instructor

Dale Zimmerman, 233 Schaeffer Hall, Office phone 5-0818, Home phone 351-0520,
E-mail dzimmer@stat.uiowa.edu, webpage <http://www.stat.uiowa.edu/~dzimmer/>

Office Hours

4:00 – 5:00 pm Monday and Wednesday, 1:00 – 2:00 pm Tuesday and Thursday, or by appointment

Department Information

Department of Statistics and Actuarial Science, 241 Schaeffer Hall, Phone 335-2082

Department Executive Officer

Professor Luke Tierney, 241 SH, Phone 335-0712, E-mail luke-tierney@uiowa.edu

Textbook

The required textbook for this course is *A First Course in Design and Analysis of Experiments*, by Gary W. Oehlert (Freeman).

Course Prerequisites

22S:164 (or equivalent) and familiarity with statistical theory at the level of 22S:120.

Course Objectives

To learn the basic principles of experimental design from a statistical perspective, and to learn how to perform appropriate statistical analyses of data obtained from a number of experimental designs using SAS.

Computing

Substantial computing will be necessary to complete many homework assignments and the mini-projects. We will be using SAS for this purpose. Class handouts and examples will illustrate its use.

Homework

Written homework assignments are an essential component of the course. Assignments will be given every 3-4 class periods. Assignments must be turned in at the beginning of class on the day they are due. Unless prior arrangements are made, homework turned in late will receive a score no higher than 50%. You are encouraged to work on homework problems together, but you must write up your final solutions on your own. Some assignments will involve the analysis of data using a computer. Any computer output you wish to include with your homework should be fully labeled and annotated, and should be integrated with other parts of the homework by cutting and pasting (electronically or otherwise).

Attendance

Attendance at lectures and participation in discussions are expected. Coming late to class, leaving early, or failing to attend class often will lower your grade.

Exams

Three in-class exams will be given. The first will be given in the latter half of February; the second will be given in early April; and the third will be given during Final Examination Week, from 7:30-9:30 am, Monday, May 7.

Mini-Projects

Each student will do two mini-projects during the semester. The first mini-project will require the student to carry out a completely randomized experiment, analyze the results, and write a relatively short (no more than 3 typed pages, single-spaced) report summarizing the experiment and the results of its analysis. For the second mini-project, data from a more complicated experiment will be provided to each student, who will need to analyze them and write a slightly longer (no more than 5 typed pages, single-spaced) report describing the results of an appropriate analysis. The first mini-project will be due in mid-February, and the second in late April. More details on these will be provided in due course.

Grading

- Homework and Attendance, 15%
- Midterm Exams, 40% (20% each)
- Final Exam, 30%
- Mini-Project #1, 5%
- Mini-Project #2, 10%

Plus-minus grading will be used.

Students with Disabilities:

I would like to hear from anyone who has a disability that may require some modification of seating, testing, or other class requirements so that appropriate arrangements can be made. Please see me after class or during office hours very soon to discuss this.

Course Policies

Course policies are governed by the College of Liberal Arts and Sciences. University policies regarding Student Rights and responsibilities can be found at

http://www.clas.uiowa.edu/students/academic_handbook/