

22S:150
Regression, Time Series, and Forecasting
61 SH
8:30-9:20 a.m.
Fall 2007
Stramer

Instructor: Osnat Stramer, 372 SH, phone: 335-3182,
Email: stramer@stat.uiowa.edu.

Office Hours: Monday 3:30-5:00 p.m., Wednesday 3:45-5:00 p.m. or by appointment.

Dept Info: Prof. Luke Tierney, Chairman.
Department of Statistics & Actuarial Science, 241 SH
Phone: 335-0712,
Email: luke-tierney@stat.uiowa.edu

ICON: [http:// icon.uiowa.edu/](http://icon.uiowa.edu/) Log in using your Hawk ID and Hawk ID password.

Text: Chatterjee & Hadi, *Regression Analysis by Example*, 4rd ed (Wiley) 0471746967. Please bring your text-book to classes

The Course:

1. Regression analysis by example: most of the material in Chapters 1-8, some of the material in Chapters 9 and 11.
2. Time series analysis: Autocorrelation functions, stationarity, and autoregressive integrated moving average models. Notes will be provided.

Computer Package: We will be using Minitab Statistical Software for some of our statistical analysis. Minitab is available in all of the campus Instructional Technology Center (ITCs) such as 41 SH.

Prerequisite: 22S:131 or 22S:154.

Grading System

Assignments (10 %): Homework will be assigned nearly each Wednesday and due the next Wednesday.

Project (20%): Projects are due on 12/14/07. Students will work in groups of 3-4 to carry out projects involving application of the statistical methods covered in the course to problems of their own choosing. Each group will:

- Formulate a research question
- Obtain a dataset that can be used to address this question; you may
 - collect your own data,
 - obtain a dataset from the web, from a book, from an instructor in your major field, or from some other source, or
 - see me for a choice of datasets (as a last resort)
- determine an appropriate method of analysis
- use MINITAB to check the data
- use MINITAB to carry out the analysis
- report and interpret the results

Exams and Percentage of Final Grade

Quizzes (20%): There will be approximately six quizzes in class. They will be announced ahead of time. Quizzes are closed book. Your lowest quiz grades will be dropped when deterring your overall quiz score for the final grade.

Midterm (20%): There will be one midterm exam during the course. The exam date is Saturday Oct 27. The midterm exam will be from 9:00-11:00 AM. The examination will be closed book and closed notes, except that you may use a “crib sheet”-one page (8.5 x 11) of notes written on both sides for the midterm.

Final exam (30%): A cumulative examination will be given on Monday December 17 2007 from 7:30 to 9:30 a.m. The examinations will be closed book and closed notes, except that you may use a “crib sheet”-two pages (8.5 x 11) of notes written on both sides for the final.

Course Policies

Course attendance: Students are responsible for all material covered in the lectures.

E-mail Account: Every student in the class is required to check his/her UIowa e-mail often (every other day.)

The College of Liberal Arts and Sciences Policy and Procedures

Academic Fraud

Plagiarism and any other activities that result in a student presenting work that is not his or her own are academic fraud. Academic fraud is reported to the departmental DEO and then to the Associate Dean for Academic Programs and Services in the College of Liberal Arts and Sciences. www.clas.uiowa.edu/students/academic_handbook/ix.shtml

Making a Suggestion or a Complaint

Students have the right to make suggestions or complaints and should first visit with the instructor, then with the course supervisor if appropriate, and next with the departmental DEO. All complaints must be made within six months of the incident. www.clas.uiowa.edu/students/academic_handbook/ix.shtml#5

Accommodations for Disabilities

A student seeking academic accommodations first must register with Student Disability Services and then meet with a SDS counselor who determines eligibility for services. A student approved for accommodations should meet privately with the course instructor to arrange particular accommodations. www.uiowa.edu/~sds/

Understanding Sexual Harassment

Sexual harassment subverts the mission of the University and threatens the well-being of students, faculty, and staff. Visit www.sexualharassment.uiowa.edu/ for definitions, assistance, and the full policy.