STAT:4510 (22S:150)
Regression, Time Series and Forecasting

Fall 2014
Lecture: 1:30 - 2:20 pm MWF in 15 SH

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Text: Regression Modeling with Actuarial and Financial Applications by Edward W. Frees

Course Objective: The course is designed to satisfy the VEE (Validation by Educational Experience) requirement for Applied Statistical Methods of the SOA (Society of Actuaries) and the CAS (Casualty Actuarial Society). The two major subjects covered in the course are regression analysis and time series. We will study most of the materials in Chapters 1 through 8 of the text.

After completing the course, you should be able to
  o  understand the ideas behind the statistical methods covered in the course
  o  apply the methods (linear regression in particular) to real-world problems that are amenable to such techniques, and do an appropriate analysis
  o  interpret the results

Attendance: Although attendance is not taken, it goes without saying that regular attendance is necessary for getting the most out of a course as well as for getting a good grade. In the event of an absence, you are responsible for the materials covered in class and will need to catch up, e.g. by getting relevant notes from a classmate, etc.

Statistical Package: A popular software package, MINITAB, will be used extensively for statistical computation and analysis.

Homework: Homework assignments will typically be given about once every week and will be posted on ICON. Your work will be collected, and a random subset of the homework problems will be graded. You may work with your classmates on the homework assignments, but you must turn in your individual solutions. Homework solutions will be provided.

Late homework will not be accepted, unless due to “illness, mandatory religious obligations, or other unavoidable circumstances or University activities”.
Class Notes: The notes for Part I: Linear Regression (Chapters 2 to 6) in PDF format will be provided, and will be made available to you on ICON. Please get a copy and bring them to class. My lectures for these chapters will generally follow the notes quite closely.

Class Project: There will be a project that involves building a multiple regression model for a data set that you will collect. You may work on your own or with your classmates in a group setting. Each group will consist of no more than 4 students, and every student in the group will receive the same score for their project. The project will be due at the end of the semester. More information will be given at a later date.

Exams: There will be two midterm exams and a final. The midterm exams are tentatively scheduled for September 29 (Monday) and November 5 (Wednesday). The final exam will be comprehensive and its date and time will be announced by the University.

Missed exams may be made up only with documentation of reasons, as required by University policy.

Grading: Homework (15%), Project (15%), Midterms (20% each), Final (30%)

Grading Policy: A (>90%), B (>80%), C (>70%), D (>60%). The cut-off points for the grades may be lowered at the instructor’s discretion.

College of Liberal Arts and Sciences: Policies and Procedures

Administrative Home
The College of Liberal Arts and Sciences is the administrative home of this course and governs matters such as the add/drop deadlines, the second-grade-only option, and other related issues. Different colleges may have different policies. Questions may be addressed to 120 Schaeffer Hall, or see the CLAS Academic Policies Handbook at http://clas.uiowa.edu/students/handbook.

Electronic Communication
University policy specifies that students are responsible for all official correspondences sent to their University of Iowa e-mail address (@uiowa.edu). Faculty and students should use this account for correspondences (Operations Manual, III.15.2, k.11).

Accommodations for Disabilities
A student seeking academic accommodations should first register with Student Disability Services and then meet privately with the course instructor to make particular arrangements. See www.uiowa.edu/~sds/ for more information.
Academic Honesty
All CLAS students have, in essence, agreed to the College's Code of Academic Honesty: “I pledge to do my own academic work and to excel to the best of my abilities, upholding the IOWA Challenge. I promise not to lie about my academic work, to cheat, or to steal the words or ideas of others; nor will I help fellow students to violate the Code of Academic Honesty.” Any student committing academic misconduct is reported to the College and placed on disciplinary probation or may be suspended or expelled (CLAS Academic Policies Handbook).

CLAS Final Examination Policies
The final examination schedule for each class is announced around the fifth week of the semester by the Registrar. Final exams are offered only during the official final examination period. No exams of any kind are allowed during the last week of classes. All students should plan on being at the UI through the final examination period. Once the Registrar has announced the dates and times of each final exam, the complete schedule will be published on the Registrar's web site.

Making a Suggestion or a Complaint
Students with a suggestion or complaint should first visit with the instructor (and the course supervisor), and then with the departmental DEO. Complaints must be made within six months of the incident (CLAS Academic Policies Handbook).

Understanding Sexual Harassment
Sexual harassment subverts the mission of the University and threatens the well-being of students, faculty, and staff. All members of the UI community have a responsibility to uphold this mission and to contribute to a safe environment that enhances learning. Incidents of sexual harassment should be reported immediately. See the UI Comprehensive Guide on Sexual Harassment for assistance, definitions, and the full University policy.

Reacting Safely to Severe Weather
In severe weather, class members should seek appropriate shelter immediately, leaving the classroom if necessary. The class will continue if possible when the event is over. For more information on Hawk Alert and the siren warning system, visit the Department of Public Safety website.