

Linear Statistical Models for Business Research
MARK 6750
Course Syllabus

TERM: Fall 2009

INSTRUCTOR

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OFFICE HOURS: MWF: 2:30-3:30

REQUIRED TEXT

Regression Analysis by Example, 4th Edition, by Samprit Chatterjee and Ali Hadi, Wiley

SUPPLEMENTARY MATERIAL

SAS OnlineDoc[®] Version 9 (<http://v9doc.sas.com/sashtml> , username: onlinedoc, password: sas)

Applied linear Statistical Models, 5th Edition, by Michael Kutner, Christopher Nachtsheim, John Neter, and William Li, McGraw – Hill/Irwin

Business Statistics: A Decision Making Approach, 7th Edition, by David Groebner, Patrick Shannon, Phillip Fry and Kent Smith, Prentice Hall

COURSE DESCRIPTION

This is an introductory course in applied linear statistical models providing the necessary theory and rigor to adequately understand and apply the methods. In addition to exams and assignments, students are required to complete an empirical research project demonstrating their mastery of course topics.

PREREQUISITES: Permission of department

COURSE OBJECTIVES/EXPECTED LEARNING OUTCOMES

- Provide an understanding of the structure and assumptions of regression and ANOVA models.
- Develop the ability to assess the appropriateness of models for different applications, and apply remedial measures where needed.
- Understand the benefits provided by linear models in business research, and how to properly interpret results.
- Develop hands-on model building and application skills utilizing relevant software.

TOPICAL OUTLINE

- Introduction
- Simple Linear Regression Model
- Parameter Inference
- Prediction
- Multiple Linear Regression Model
- Parameter Inference
- Prediction
- Regression Diagnostics
- Remedial Measures
- Qualitative Predictor Variables
- Multicollinearity
- Model Building and Validation
- Analysis of Variance and Experimental Design

<u>Text Readings</u>	<u>Chapters</u>	<u>Week of</u>
Introduction	1	8/17
Simple Linear Regression	2	8/24, 8/31
Multiple Linear Regression	3	9/7, 9/14
Regression Diagnostics	4	9/21, 9/28
Remedial Measures	6	9/28, 10/5
Qualitative Predictor Variables	5	10/5, 10/19
Multicollinearity	9	10/19, 10/26
Model Building and Validation	11	11/2, 11/9
Analysis of Variance and Experimental Design	TBA	11/16, 11/30

EVALUATION:	2 Exams (equally weighted)	60%
	Class project	30%
	Class participation	10%

EXAM SCHEDULE, COURSE ASSIGNMENTS AND DUE DATES

Exam I	Oct. 14
Exam II (final)	Dec. 10 (12:00 – 3:00 pm)
Project proposals due	Sept 21
Final projects due	Dec. 7

EXAMINATION MAKE-UP POLICY

Missed exams will be handled on an individual basis

ATTENDANCE POLICY

Students are expected to attend class. As stated above, class participation is 10% of the course grade.

CHANGES TO THIS SYLLABUS

The course syllabus is a general plan for the course; deviations announced to the class by the instructor may be necessary. You are responsible for keeping up with all assignments, even if you miss the class in which an assignment was announced.

ACADEMIC INTEGRITY

As a University of Georgia student, you have agreed to abide by the University's academic honesty policy, "A Culture of Honesty," and the Student Honor Code. All academic work must meet the standards described in "A Culture of Honesty" found at: www.uga.edu/honesty. Lack of knowledge of the academic honesty policy is not a reasonable explanation for a violation. Questions related to course assignments and the academic honesty policy should be directed to the instructor.

STUDENTS WITH DISABILITIES

Students with disabilities who require reasonable accommodations in order to participate in course activities or meet course requirements should contact the instructor during regular office hours or by appointment.