

Econ 488 – Applied Managerial Econometrics

Fall 2010 CSUCI

Class times:

Lecture: Friday, 9:00-11:50am

Lab: Friday, 12:00 - 1:50 pm

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Office hours:

Friday: 2:00pm-3:00pm and by appointment

1 Course Information

1.1 CSUCI's catalog description:

Applied Managerial Econometrics with lab (4 units): Three hours lecture and two hour lab per week

Prerequisite: MATH/PSY 202 or MATH 329 or 352, ECON 310 or ECON 329 and MATH 150

Emphasis on the collection and manipulation of economic data, and the application of econometric methods to business and resource management issues. Development of testable hypotheses, applications of estimation techniques and interpretation of regression results. Use of econometric software applications to estimate statistical relations.

Students with disabilities who believe they may need accommodations in this class are encouraged to contact the Disability Resource Programs (DRP), <http://www.csuci.edu/disability/>, as soon as possible to better ensure such accommodations are implemented in a timely fashion.

1.2 Learning Objectives

Students who successfully complete this course will be able to:

- Collect appropriate data for various types of analyses.
- Manage and prepare data for empirical analysis.
- Formulate testable hypotheses on the basis of economic or management theory.
- Employ econometric techniques to test hypotheses.
- Perform and interpret the results of multiple linear regression.
- Detect and correct basic problems in regression analysis.
- Generate forecasts from results obtained with multiple-regression model.

1.3 Text and Materials

1. *Using Econometrics: A Practical Guide.* A. Studenmund, Sixth Edition, Pearson Addison Wesley, 2010.
 - This will be the main text for this class. It is available at the bookstore.
2. *Using gretl for Principles of Econometrics.* L Adkins, Version 1.313, Oklahoma State University, 2010.

- This is a free text book available at <http://www.learneconometrics.com/gretl/ebook.pdf>
3. gretl econometrics software
 - Available for free at <http://gretl.sourceforge.net/>

2 Class Policies and Grading

2.1 General Class Policies

2.1.1 Attendance

Lecture and laboratory attendance is mandatory. Weekly lab assignments will be given in class. If you plan on missing a class, please inform the instructor before class.

2.1.2 Lab Groups

On the first day of class, lab groups of three students each will be assigned. You may only switch lab groups with the permission of the instructor. If one member of your lab group does not come to class, you may work in a group of two. However, if two members of your lab group do not come to class, you will be temporarily re-assigned to another lab group. At the end of the semester, each person will evaluate themselves and each other lab group member, and grades may be adjusted accordingly.

2.1.3 Make-Ups and Late Work

Late work will not be accepted. If you fail to turn an assignment in on time, you will receive a zero. Make-up exams will not be permitted. If you are unable to make it to one of the exams, please contact the instructor as soon as you discover the conflict.

2.1.4 Cheating and Academic Misconduct

Academic misconduct includes the following examples as well as any other similar conduct which is aimed at falsely representing a student's academic performance: cheating, plagiarizing, unauthorized collaborating on course work, stealing course examinations or materials, falsifying records or data, or intentionally assisting another individual in any of the above.

If you are caught cheating on an exam or an assignment, you will receive a zero on the exam or assignment. In addition, the event will be reported to the Office of Judicial Affairs and may lead additional actions from the University.

2.1.5 Use of Cell Phones

The use of cell phones during lectures and sections is a disrespectful distraction to your instructor and other classmates. Please turn your cell phone and other electronic devices off while you are in class. In emergency situations, please discuss limited use of cell phone with the instructor prior to the class during which you would like to use your cell phone.

2.1.6 Use of Computers

By special arrangement, we are able to use laptops for this course. Please do not use the computers for anything other than assigned work. This includes checking email, playing games, surfing the web, etc.

2.1.7 Email

In general, email is the best way to get in contact with me. I will be happy to answer questions via email as long as they don't require too much explanation. However, if you send me an email within 24 hours of an exam or assignment deadline, don't expect me to respond before the exam/due date.

2.2 Components of Grade

2.2.1 Lab Assignments/Homework (10%)

Each week during the lab portion of the class, you will get a lab assignment, which will be done in class using the computers. Each assignment will have several discussion questions, which should be turned in the following week, unless otherwise specified. These assignments must be completed in **groups of 3**. You may drop the score from your lowest lab write-up.

2.2.2 Midterm (20%) - October 29th

The midterm will be given in class on October 29th.

2.2.3 Final Exam (25%) - December 17

The final exam will be given during the scheduled final time on December 17th at 8am. Notice the start time.

2.2.4 Research Project (45%)

You will be responsible for carrying out an original research project over the duration of the course. The research project must use multiple regression analysis to address an issue related to economic policy or theory. You may also use this project as a starting point for your economics capstone project. Your topic must be approved by the instructor prior to the submission of the formal research proposal on March 13th. Please plan on meeting with the instructor in office hours or another convenient time prior to this date. The research project will consist of the following components:

1. Proposal (5%) - Due October 15th. Write a 1-2 page proposal of your planned research topic. A proposal should define and motivate the topic, provide a literature review, describe the model and plan for collecting the data. If you have the data, then present the summary statistics.
2. Oral Presentation (10%) - In Class December 10th. Each student will give a brief (~10 minute) presentation of their research to the rest of the class. You will be given feedback in time to revise your final paper.
3. Written Paper (30%) - Due December 17th at 10:00am (No Extensions). Each student will prepare a research paper in the format of an economics journal article. Your paper should include: an introduction, a brief literature review, descriptive statistics of the data, specification of the model, preliminary results and hypothesis tests, and a conclusion describing what future research (if any) is needed and how you could revise your model. Approximately half of the paper should contain written analysis, and half of the paper should be charts and tables. The paper should be between 15-25 pages including all charts and tables.

Topics from other previous classes:

- The Effect of Climate Change on Agricultural Output
- Effect Of Country's GDP On Its Rating In Olympic Games
- The Effect of Distance to Freeways On Gas Prices

- The Worldwide Price Elasticity Of Cigarette Demand
- Do Private Schools Send More Students to College?
- The Effect of Religion on GDP
- Who is Most Likely to be a Victim of Crime?

3 Class Calendar

Coverage of lecture topics will proceed at the approximate rate of one to two chapters per week. The following schedule is tentative; it is recognized that this is subject to change as circumstances dictate. Please keep yourself updated by visiting the course website and noting the assignments for each week!

Tentative schedule for Econ 488, Spring 2010

Date	Topic/Test	Comments
Friday, September 3	Regression basics, review of some statistical concepts.	Read Ch. 16
Friday, September 10	Review of some statistical concepts (continued) and Basic Regression Analysis.	Read Ch. 1
Friday, September 17	OLS Procedure, Simple and multiple regression	Read Chs. 2 & 3
Friday, September 24	Simple and multiple regression (continued)	Read Ch. 4
Friday, October 1	Hypothesis testing, Confidence Intervals	Read Ch. 5
Friday, October 8	Model specification	Read Ch. 6
Friday, October 15	Model specification (continued)	Read Ch. 7
Friday, October 22	Multicollinearity	Read Ch. 8
Friday, October 29	Midterm	
Friday, November 5	Serial Correlation	Read Ch. 9
Friday, November 12	Heteroskedasticity	Read Ch. 10
Friday, November 19	Regression Applications and Extensions	Read Ch. 11
Friday, November 26	Thanksgiving - No Class!	
Friday, December 3	Time Series and Forecasting	Read Ch. 12 & 15
Friday, December 10	Presentations	
Friday, December 17	Final Exam	