

# Econ 488, Econometrics

Fall 2011, CSUCI

**Class Times**

Lecture: Friday 9:00 – 11:50 a.m.

Lab: Friday 12:00 – 1:50 p.m.

William Koch

Office Location: #####

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Office hours: 2:00 – 3:00 p.m. or by appointment

**Required Materials:** Using Econometrics: A Practical Guide. A. Studenmund, Sixth Edition, Pearson Addison Wesley, 2010.

Using gretl for Principles of Econometrics. L Adkins, Version 1.313, Oklahoma State University, 2010.

(The text book is available for download at <http://www.learn econometrics.com/gretl/ebook.pdf>)

## Course Description:

The course focuses on the collection and manipulation of economic data, and the application of econometric methods to business and resource management issues. Included in this will be the development of testable hypotheses, applications of estimation techniques and interpretation of regression results. Econometric software applications will be used in the class to estimate statistical relations. (*Pre-requisite:* MATH/PSY 202 or MATH 329 or MATH 352, ECON 310 or ECON 329, and MATH 150)

## Learning Objectives:

Successfully completing the course will allow the student 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.

<b>Grading</b>	<b>Weight</b>
Lab/Homework assignments	10%
Midterm Exam	20%
Final Exam	25%
Research project	45%
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Total	100%

**Grading Scale:**

≥ 90%:	A
≥ 80%:	B
≥ 70%:	C
≥ 60%:	D
< 60%:	F

**Lab/Homework assignments (10% of course grade)**

Each week during the lab portion of the class there will be 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.

**Midterm exam (20% of course grade)**

The midterm exam will be given in the 9<sup>th</sup> week of the semester on October 28<sup>th</sup>

**Final exam: (25% of course grade)**

The final exam will be given on December 16<sup>th</sup> from 8:00-10:00 a.m.

**Research project (45% of course grade)**

You will be responsible for carrying out an original research project over the duration of the course which 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 October 14<sup>th</sup>. 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 14<sup>th</sup>. 2. Oral Presentation (10%) - in class December 9<sup>th</sup>. 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 journal paper. And 3. Written Paper (30%) - Due December 16<sup>th</sup> at 8:00 a.m. (No Extensions).

Further details will be given the first day of class.

## Course Standards

It is assumed that all students will perform professionally in preparing work required for this class. If papers have to be prepared, all papers must be submitted before class on their due date. Late submissions will not be accepted.

All students commit to maintaining and upholding intellectual integrity. Any violations, including but not limited to cheating or plagiarism may result in sanctions. Sanctions may include a failing grade on an assignment, a failing grade for the course, or suspension or dismissal from the university.

Students with Disabilities needing accommodation should make requests to the staff at the Disability Accommodation Services, East Bell Tower 1796 (805 437-3331, [accommodations@csuci.edu](mailto:accommodations@csuci.edu), Valeri Cirino-Paez, [valeri.cirino-paez@csuci.edu](mailto:valeri.cirino-paez@csuci.edu) or Arjelia Guillen-Acosta, [arjelia.guillen@csuci.edu](mailto:arjelia.guillen@csuci.edu)). Please discuss approved accommodations with the instructor.

## Class Schedule (Tentative)

This schedule is subject to change during the semester

Week	Date	Topic/Test	Comments
1	9/2	Regression basics, review of some statistical concepts.	Read Chapter 17
2	9/9	Review of some statistical concepts (continued) and basic regression analysis.	Read Chapter 1
3	9/16	OLS procedure, simple and multiple regression	Read Chapters 2 and 3
4	9/23	Simple and multiple regression (continued)	Read Chapter 4
5	9/30	Hypothesis testing, Confidence Intervals	Read Chapter 5
6	10/7	Model specification	Read Chapter 6
7	10/14	Model specification (continued)	Read Chapter 7
8	10/21	Multicollinearity	Read Chapter 8
9	10/28	<b>Midterm</b>	
10	11/4	Serial Correlation	Read Chapter 9
11	11/11	Veterans Holiday – no class	
12	11/18	Heteroskedasticity, regression topics	Read Chapters 10 and 11
13	11/25	Thanksgiving – no class	
14	12/2	Time series and forecasting	Read Chapters 12 and 15
15	12/9	Presentations	
16	12/16	<b>Final Exam</b>	Exam time: 8:00–10:00 a.m.

(Revised August 24, 2011)