Econ 488: Econometrics

Fall 2012, CSUCI
Class Times
Lecture: Friday 9:00 – 11:50 a.m., **Bell Tower 2582**
Lab: Friday 12:00 – 1:50 p.m., Ojai 1952

Instructor: William Koch, Ph.D.
Office Location: Sage Hall Rm. 2016
Email: william.koch@csuci.edu
Office hours: Friday 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.learneconometrics.com/gretl/ebook.pdf)

Class Webpage: http://faculty.csuci.edu/william.koch/Fall2012_Econ488.html

Course Description:

The course focuses on the collection and manipulation of economic data, and the application of econometric methods to economic, 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 regressions.
- Detect and correct basic problems in regression analysis.
- Generate forecasts from results obtained with multiple-regression model.

Class guidelines:

Attendance

Lecture and laboratory attendance is mandatory. Weekly lab assignments will be given in class. If you plan on missing a class, inform the instructor before class. If you miss more than two lectures/lab you may be dropped from the class.

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.

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, contact the instructor as soon as you discover the conflict.

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.

Grading

Categories	**Weight**	**(pts)**
Lab/Homework assignments (best 10 out of 11 labs)	10%	(60)
Class participation/quizzes	5%	(30)
Midterm Exam	20%	(120)
Final Exam	25%	(150)
Research project	40%	(240)
Total	100%	(600)

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

("+"s and "-"s may be given where total class points warrant)

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 three. You may drop the score from your lowest lab write-up.

Class participation/quizzes (5% of course grade)

At various times during the course, in-class questions will be asked which students will answer with their digital devices (cell phone, tablet/laptop computer).

Midterm exam (20% of course grade)

The midterm exam will be given in the 8th week of the semester on October 19th

Final exam: (25% of course grade)

The final exam will be given on December 14th from 8:00-10:00 a.m.

Research project (40% 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. Your topic must be approved by the instructor prior to the submission of the formal research proposal on October 19th. Plan on meeting with the instructor in office hours, or during lab, prior to this date. The research project will consist of the following components: **1.** Proposal (5%) - Due October 19th. **2.** Oral Presentation (10%) - in class December 7th. 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. **3.** Written Paper (25%) - Due December 14th at 8:00 a.m. (No Extensions).

Further details will be given in 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, Bell Tower 1541, Ph: (805) 437-3331, accommodations@csuci.edu, Valeri Cirino-Paez, valeri.cirino-paez@csuci.edu or Arjelia Guillen-Acosta, 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	8/31	Regression basics, review of some statistical concepts.	Read Chapter 17
2	9/7	Review of some statistical concepts (continued) and basic regression analysis.	Read Chapter 1
3	9/14	OLS procedure, simple and multiple regression	Read Chapters 2 and 3
4	9/21	Simple and multiple regression (continued)	Read Chapter 4
5	9/28	Hypothesis testing, Confidence Intervals	Read Chapter 5
6	10/5	Model specification	Read Chapter 6
7	10/12	Regression topics	Read Chapter 11
8	10/19	**Midterm** **Research Proposals due**	*no lab*
9	10/26	Model specification (continued)	Read Chapter 7
10	11/2	Multicollinearity	Read Chapter 8
11	11/9	Serial Correlation	Read Chapter 9
12	11/16	Heteroskedasticity	Read Chapter 10
13	11/23	*Thanksgiving – no class*	
14	11/30	Time series and forecasting	Read Chapters 12 and 15
15	12/7	**Oral Presentation**	
16	12/14	**Final Exam, Research Papers Due**	Exam time: 8:00–10:00 a.m.

Important Dates:

- **October 19 Research Paper Proposal due**
- **October 19 Midterm**
- **December 7 Oral presentation**
- **December 14 Final Exam, Research papers due**

(Revised September 21, 2012)