

Introduction to Econometrics
ECON 3373 CRN 25600
BUSN 320
Spring 2016
Tuesdays and Thursdays 1:30pm – 2:50pm

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I. INTRODUCTION

This syllabus contains important information concerning the course and work expected of you. In order to avoid misunderstandings, please read it very carefully and ask any questions you may have.

Course Description

This is an introductory course in econometrics, which is the application of statistics to economics. The main prerequisite is a reasonable exposure to microeconomic and macroeconomic theory. While a previous course in statistics would be beneficial, it is not required. We will use the computers in the classroom, as well as a statistical software program. Data sets for examples and homework assignments will be made available on Blackboard.

Course Objectives

At the end of this course you should have a good understanding of the concepts and methods of econometrics. The main themes of this course are to: Provide you with a more detailed introduction to statistical concepts than normally acquired in a basic statistics course; Provide you with the basics of econometric analysis focusing on the least squares methodology for single explanatory and multiple explanatory variables; Provide you with an understanding of the issues involved in testing theories; Provide you with an understanding of data analysis applicable to economic problems; Expose you to the use of a computer package (STATA e.g.) for analyzing data; Allow you to apply the techniques earned in the course to homework assignments.

Specific Objectives

Specific objectives of this course are to instruct you in:

1. The formulation of an empirical economic model;
2. Data collection, interpretation, organization, and analysis for economics;
3. Fundamental probability concepts used in econometric analysis;
4. The desirable properties of estimators;
5. Key Classical Assumptions and their significance;
6. The principles of least squares analysis;
7. The properties of least squares estimators;
8. The interpretation of key statistics and diagnostics typically generated by software;
9. The effects of the violations of the Classical Assumptions;
10. The verification of the Classical Assumptions;
11. The corrections of the Classical Assumptions;
12. Extensions to the regression family to handle important special cases;
13. The use of econometric software in a lab setting.

Course Emphasis

Emphasis is placed on a combination of the mathematical development of econometric tools and their application to data. The applications are in lab/class sessions in which you will be instructed in using an econometrics computer package and asked to solve problems using that package. The problems consist of a combination of exercises to:

1. Analyze data both graphically and statistically;
2. Estimate equations and test assumptions of the equations;
3. Manipulate features of the computer package.

At the end of the semester, you will be expected to:

1. Manipulate features of a computer package;
2. Interpret econometric software output;
3. Identify problems with an estimated econometric model;
4. Identify and apply fixes to an econometric model if a problem exists;
5. Answer a major question about an estimated model: Does it make sense?

II. Required Material

Textbook

This course will be utilizing the online course supplement MyEconLab. Students are required to register and use MyEconLab. MyEconLab includes an e-book. Homework and lecture readings will be assigned through MyEconLab. The textbook for this course is:

Introduction to Econometrics, 3rd Edition, by James H. Stock and Mark W. Watson. ISBN: 978-0-13-348687-2

Since an e-book is included with MyEconLab, students are not required to purchase a hard copy of the book. More information will be posted on Blackboard as well as during the first lecture.

Tentative Lecture Outline (Subject to change based on time or other unforeseen factors)

Midterm Material:

Part One: Introduction and Review

- **Chapter 1:** Economic Questions and Data
- **Chapter 2:** Review of Probability
- **Chapter 3:** Review of Statistics

Part Two: Fundamentals of Regression Analysis

- **Chapter 4:** Linear Regression with One Regressor
- **Chapter 5:** Regression with a Single Regressor: Hypothesis Tests and Confidence Intervals
- **Chapter 6:** Linear Regression with Multiple Regressors

Midterm 1 – Thursday, March 3

- **Chapter 7:** Hypothesis Tests and Confidence Intervals in Multiple Regression
- **Chapter 8:** Nonlinear Regression Functions
- **Chapter 9:** Assessing Studies Based on Multiple Regression

Part Three: Further Topics in Regression Analysis

- **Chapter 10:** Regression with Panel Data
- **Chapter 11:** Regression with a Binary Dependent Variable

Part Four: Regression Analysis of Economic Time Series Data

- **Chapter 14:** Introduction to Time Series and Forecasting

Cumulative Final Exam – Thursday, May 12 from 1:00pm – 3:45pm

Other Key Dates:

February 17: University Closed for The Pope’s visit to Juárez

March 7-11: Spring Break – University closed

April 1: Last day to withdraw from classes

May 6: Make up for February 17

Reading Assignments

You are expected to complete the assigned readings for each lecture prior to attending class. You are responsible for ALL assigned material. Lectures will follow the textbook but will NOT cover all the material.

Exams

There will be two exams: a midterm and a final. The midterm will include materials covered, but may differ from the Tentative Lecture Outline because of time or other factors. The final exam will be cumulative and will cover material from the entire semester. **All exams are closed book, closed notes.**

Due to its comprehensive nature, the final exam requires the students to have knowledge from previous chapters. Econometrics is cumulative by nature, and the final exam is cumulative as well. The final exam will be closed book, closed notes.

Please note the date of the **Final exam:**

Thursday, May 12 from 1:00pm – 3:45pm

If you have a conflict with this date, contact me *at least 2 weeks in advance* to make alternate arrangements. **In addition, anyone who does not take all three exams will receive a failing grade.**

It cannot be emphasized enough that the material covered in this course is cumulative; what is presented in subsequent weeks depends heavily on material presented in previous weeks. If you

get behind or have difficulty early on, do not delay getting help or you will have more difficulty as the course proceeds.

Only standard calculators (e.g. TI-86) will be allowed during exams. No other type of calculators will be allowed.

Quizzes

There will be 5 quizzes throughout the semester. The lowest quiz score will be dropped. Each quiz will be about 20 minutes, consist of econometric problems to solve, and may be multiple choice or short answer. MyEconLab and other assigned problems are excellent examples of quiz questions.

The dates of the quizzes are: 2/4, 2/18, 3/24, 4/7, and 4/28.

Since the lowest quiz score is dropped, there are no make-up quizzes.

Problem sets

There will be two types of homework assigned for this course: 1) regular problem sets assigned in MyEconLab for the semester, and 2) computer exercises designed to familiarize you with using econometrics software. The MyEconLab assignments will generally be due a week after being assigned. The computer exercises assigned will require the use of an econometrics software package and will also be due a week after being assigned. Please note that due dates for the homework assignments are not flexible. If homework is not completed by the due date you will receive a zero for that assignment. There are no exceptions.

I strongly urge the students to use MyEconLab and the other assignments as preparation for the exams. Econometrics cannot be learned passively and the problem sets are a part of active learning. In addition, it may be helpful to work on the problems with another student.

Evaluation Criteria

NOTE: There are no exceptions to the grading policy. I sympathize with students who are close to the cutoff for the next higher grade; however, it is unfair to others to give special consideration to any student.

Midterm #1:	30%
Quizzes:	20%
MyEconLab/HW:	20%
Final Exam:	30%

FINAL LETTER GRADING SCALE

Grade	Percent
A	90-100
B	80-89
C	70-79

D	60-69
F	< 60

Make-up Policy

A mid-term exam may be rescheduled under 2 circumstances only:

- (1) **Religious holidays** – Requests for an alternative date for the final must be made in writing, at least 1 week in advance of the exam.
- (2) **Medical emergencies** - Requests must be accompanied by a signed document from a health professional that indicates the nature of the illness, and the reason that the exam could not be taken. In case of emergencies, **the student must contact me within 24 hours of the exam start time**; failure to do so will result in a zero exam score.

Other case will be subject to instructor discretion provided contact is made prior to the exam date.

III. MISCELLANEOUS

Notice of Policy on Cheating

Students are expected to conduct themselves with integrity in all aspect of this course. Students who engage in scholastic dishonesty are subject to disciplinary penalties, including the possibility of failure of the course and dismissal from the university. Scholastic dishonesty includes but is not limited to cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to any student or the attempt to commit such acts. Regents' Rules and Regulations, Part One, Chapter IV, Section 3, Subsection 3.2, Subdivision 3.22.

Cheating includes, among others: (1) copying from the exam of another student, engaging in written, oral, or any other means of communication with another student during an exam, or giving aid to or seeking aid from another student during an exam; (2) possession and/or use of materials during a test that are not authorized by the instructor, such as class notes, books, or specifically designed cheat sheets; (3) using, obtaining, or attempting to obtain by any method the whole or any part of an un-administered test, test answer key, homework solution; (4) collaborating with or seeking aid from another student for an assignment without authority; (5) substituting for another person or permitting another person to substitute for one's self, or to take an exam; (6) falsifying academic work for credit.

Plagiarism means the appropriation, buying, receiving as a gift, or obtaining by any other means another's work and the unacknowledged submission or incorporation of it in one's own academic work offered for credit.

Collusion means the unauthorized collaboration with another person in preparing academic assignments offered for credit or collaboration with another person to commit a violation of any provision of the rules on scholastic dishonesty.

Since scholastic dishonesty harms the individual, all students, and the integrity of the university, policies on scholastic dishonesty will be strictly enforced.

Class Etiquette

I will make every effort to begin class promptly and end class on time. If you arrive late/leave early, please make every effort to do so quietly. Out of consideration for your classmates and the instructor, please refrain from talking with your neighbors during class.

No electronic devices will be allowed during exams. Cell phones, iPods, MP3 players, Palm devices, etc., must be turned off. **Only standard calculators (e.g. TI-86) will be allowed during exams. No other type of calculators will be allowed.** If you have any questions about what's allowed, please see me.

Please make sure your cell phones and other electronic devices are turned off while you're in class.

Students with Disabilities

If you have a disability and need classroom accommodations, please contact The Center for Accommodations and Support Services (CASS) at 747-5148, or by email to cass@utep.edu, or visit their office located in UTEP Union East, Room 106. For additional information, please visit the CASS website at www.sa.utep.edu/cass. *CASS' Staff are the only individuals who can validate and if need be, authorize accommodations for students with disabilities.*

Please be aware that a delay in getting accommodation letters for the current semester may hinder the availability or facilitation of those accommodations in a timely manner. Therefore, it is in your best interest to get your accommodation arranged as early in the semester as possible.