

Econ 402 – Syllabus  
Econometrics  
Fall 2007

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**Lecture Time and Location:**

Tues & Thurs 2:30PM – 3:45PM, BS 101

**Course Description:**

This course offers an introduction to the *theory* and *application* of econometric analysis. Topics include simple and multiple linear regression, correlation, and hypothesis testing. Both conceptual and practical problems are considered, including multicollinearity, heteroscedasticity, and measurement errors. An introduction to simultaneous equation estimation is also presented.

**Learning Objectives:**

The aim of the course is to provide you with sufficient knowledge of econometrics theory and methods to make you an effective consumer and producer of empirical research in economics. This course places particular emphasis on estimation and interpretation of the standard linear regression model. First, we review topics in probability theory and statistics. Then, we begin to analyze the two-variable linear regression model, and move on to the general K-variable model. Throughout, we discuss *estimation*, *prediction*, and *testing*. Students will also apply the techniques learned in this course using E-views.

**Prerequisites:**

ECON 201-202, MGMT 201.

**Textbooks:**

**Required:** Wooldridge, J. M., *Introductory Econometrics: A Modern Approach*, 3<sup>rd</sup> Edition, Thomson South-Western, 2006

**Optional:** Gujarati, D. N., *Basic Econometrics*, 4<sup>th</sup> edition, 2003  
Kennedy, Peter. *A Guide to Econometrics*, 3<sup>rd</sup> edition, 1992

**Grading:**

<b>Probability Review Test</b>	<b>10%</b>
<b>Midterm 1</b>	<b>20%</b>
<b>Midterm 2</b>	<b>20%</b>
<b>Final Exam</b>	<b>40%</b>
<b>Pop Quizzes</b>	<b>10%</b>

There will be 4-5 assignments to help students practice and prepare for exams. You will be required to use computer software to do some of the assignments. The suggested choice is E-Views (you can buy the student version E-views 4.1 through the company's website at <http://www.eviews.com/eviews4/eviews41s/evstud41.html> .)

These pop quizzes are primarily used to encourage class attendance. I will drop the lowest score and count the rest for your quiz grade. Thus, missing one class where a quiz was given won't hurt you, as you will have the chance to use your other quiz grades towards the quiz component of your final grade. No exception will be made in cases where a student misses more than 1 class where a quiz was given.

There will be No make up exam. All questions regarding grades of exams must be asked during office hours within ONE WEEK of the time that your exam grade is announced.

**Grade Scale:** This course uses the standard University +/- system for A (90-100); B (70-89); C (70-79); D (60-69); Below 60 = F. (in percent):

<u>Grade</u>	<u>Point Range</u>	<u>Grade</u>	<u>Point Range</u>	<u>Grade</u>	<u>Point Range</u>
A+	96.7 – 100	A	93.4 – 96.6	A-	90.0 – 93.3
B+	86.7 – 89.9	B	83.4 – 86.6	B-	80.0 – 83.3
C+	76.7 – 79.9	C	73.4 – 76.6	C-	70.0 – 73.3
D+	66.7 – 79.9	D	63.4 – 66.6	D-	60.0 – 63.3
F	Below 60.0				

**Student Academic Rights and Responsibilities:**

The University Code of Student Rights and Responsibilities establishes the rights to which the student is entitled and the responsibilities the student must assume. Along with preparing and attending class, each student has the responsibility of promoting high academic standards. High academic standards will not allow the College of Business and Public Administration to tolerate cheating, plagiarism, disruption of class, or other inappropriate classroom behavior. The College of Business and Public Administration has a strong policy of action against students who cheat, plagiarize, or conduct themselves inappropriately in the classroom. Proven cases of cheating or plagiarism will normally result in a grade of F with the student being denied admission to or dismissal

from the College. Inappropriate classroom behavior will result in the student being withdrawn from the class.

**Tentative Course Schedule:**

<u>Dates</u>	<u>Topics</u>	<u>Readings</u>
Aug 21, Tues	Introduction	Ch 1
Aug 23, Thurs	Probability and Distribution	Appendix A and B
Aug 28, Tues	Expectation and Moments	Appendix A and B
Aug 30, Thurs	Point and Interval estimation; Hypothesis testing	Appendix C
<b>Sep 4, Tues</b>	<b>Probability Review Test</b>	
Sep 6, Thurs	Simple linear regression model and conditional mean functions	Ch 2
Sep 11, Tues	Ordinary Least Squares (OLS) and its properties	Ch 2
Sep 13, Thurs	Residuals, Fitted Value, and Goodness of Fit	Ch 2
Sep 18, Tues	Multiple Regression	Ch 3
Sep 20, Thurs	OLS and properties, Gauss-Markov Theorem	Ch 3
Sep 25, Tues	Interpreting Multiple Regression Coefficients,	Ch 3
Sep 27, Thurs	Hypothesis Testing Coefficients	Ch 4
Oct 2, Tues	Hypothesis Testing & Confidence Interval	Ch 4
<b>Oct 4, Thurs</b>	<b>Midterm 1</b>	
<b>Oct 9, Tues</b>	<b>Midterm Break</b>	
<b>Oct 11, Thurs</b>	<b>Last day to withdraw.</b> Hypothesis Testing, Multiple Regression Context	Ch 4
Oct 16, Tues	OLS Asymptotics	Ch 5
Oct 18, Thurs	Scaling in Linear Regression Model	Ch 6
Oct 23, Tues	Interpretation of coefficient under common transformations	Ch 6
Oct 25, Thurs	Dummy (Indicator) Variables and interactions	Ch 7
Oct 30, Tues	More on interactions	Ch 7
Nov 1, Thurs	Introduction to Joint Testing	Ch 4 and lecture notes
<b>Nov 6, Tues</b>	<b>Midterm 2</b>	
Nov 8, Thurs	Derivation of Equivalent Test Statistic, Example of Joint Testing	Lecture Notes
Nov 13, Tues	Heteroskedasticity	Ch 8
Nov 15, Thurs	FGLS and GLS	Ch 8
Nov 20, Tues	Omitted Variable Bias and Multicollinearity	Ch 9
<b>Nov 22, Thurs</b>	<b>Thanksgiving Break</b>	
Nov 27, Tues	Measurement Error	Ch 9
Nov 29, Thurs	Final Review	
<b>Dec 5, Wed</b>	<b>Final Exam 11:30AM-2:00PM</b>	