



## **COURSE SYLLABUS**

Course: **ECON4743 Introduction to Econometrics**

Prerequisite: (ECON 2013 and ECON 2023) or ECON 2143) and (MATH 2043 or MATH 2554 or higher) and (WCOB 1033 or STAT 2303).

### **Course Description:**

Introduction to the application of statistical methods to economic problems.

### **Value of the Course:**

According to Gujarati (*Basic Econometrics*, 3rd edition, New York: McGraw-Hill, 1995), "...econometrics gives empirical content to most economic theory" (p. 2). In this course you will learn how to test economic theories using real data and how to determine the validity of your tests. This knowledge will help you to use economic theory to formulate and/or assess business and public policy decisions.

"The purpose of studying economics is not to acquire a set of ready made answers to economics questions, but to learn how to avoid being deceived by economists."

--Joan Robinson (an economist)

### **Course Objective:**

This course covers basic econometric methods. It assumes that you have already had courses in principles of economics (ECON 2013 & 2023, or ECON 2143), calculus (MATH 2043 or MATH 2555), quantitative analysis (ECON 4733 or MATH 2053) and statistics (CISQ 2013). The most important part of the course is learning how to set up and solve econometric problems. To supplement the textbook, many outside examples will be incorporated into the lectures. Therefore, attendance is vital to success in this course. Problem sets are also a very important part of the course as they will give you practice in using the methods studied in class. Some of the problem sets will involve the use of computers; instruction on how to use the computer will be given in class.

### **Reading Materials:**

The textbook is Hill, Griffiths and Judge, *Undergraduate Econometrics*, 2nd Edition (John Wiley & Sons, Inc., 2001). Internet resources for this book are available at: [www.wiley.com/college/hill](http://www.wiley.com/college/hill)

### **Class Procedures:**

Class will consist primarily of lectures and demonstrations.

### **Special Requirements:**

None.

**Office Hours:**

9:00 a.m. - 10:50 a.m., Tuesdays and Thursdays, and by appointment.

**Attendance Policy:**

Regular attendance is expected. In addition, you are expected to read the textbook ahead of lectures. You will get much more out of the lectures and will maximize your chances of scholastic success if you come to lectures having read the material to be covered.

**Examinations:**

There will be two mid-term examinations and a final examination. The mid-term exams will be held in class on Thursday, February 28 and Tuesday, April 9. The final exam will be on Friday, May 10, from 10:00 a.m. - 12:00 p.m. (noon); the final exam will be comprehensive.

**Accommodations for Students with Disabilities:**

Students are responsible for requesting accommodations from the Center for Students with Disabilities. It is the Walton College policy that students must also request testing accommodations from their instructor; this should be done in writing, ten days prior to the test date.

**Grades:**

Assessment is based on homework problems (40%), two mid-term examinations (20% each), and a final examination (20%).

**Academic Dishonesty:**

All students are expected to understand and adhere to the University's policy on academic honesty as expressed on pages 37-39 of the *2001-2002 Catalog of Studies*. The University's *2001-2002 Catalog of Studies* states that "[a]cademic dishonesty involves acts that may subvert or compromise the integrity of the educational process at the University of Arkansas. Included is an act by which a student gains or attempts to gain an academic advantage for himself or herself or another by misrepresenting his or her or another's work or by interfering with the completion, submission, or evaluation of work" (p. 37). For a partial list of acts of academic dishonesty, see pages 37-38 of the *2001-2002 Catalog of Studies*.

**Inclement Weather Policy:**

The University's policy is to remain open in all weather conditions; however, each employee is given the responsibility for deciding whether to report for work during inclement weather. If we will *not* be meeting due to inclement weather, I will attempt to let you know via my office telephone's answering message and via e-mail. Note, however, that placing a call to the University during inclement weather is notoriously difficult--telephone lines are often jammed. Therefore, if in doubt, call me at home (443-3071) no earlier than 6:30 a.m. the day of class to learn whether we will be meeting that day.

**Disclaimer:**

The instructor reserves the right to alter the contents, requirements and/or scheduling of this course as he sees fit.

## *Tentative Semester Outline*

<b>I. INTRODUCTION AND REVIEW</b>			
	What is econometrics and why study it?	January 15	Chapter 1
	Review of Probability and Statistics	January 17, 22	Chapter 2
<b>II. SIMPLE LINEAR REGRESSION ANALYSIS UNDER IDEAL CONDITIONS</b>			
	Specification and Estimation	January 24, 29, 31	Chapter 3
	Properties of the OLS Estimator	February 5, 7	Chapter 4
	Inference	February 12, 14, 19	Chapter 5
	Functional Form	February 21, 26	Chapter 6
<b><i>EXAM I, Thursday, February 28</i></b>			
<b>III. MULTIPLE REGRESSION ANALYSIS UNDER IDEAL CONDITIONS</b>			
	Specification, Estimation, and Inference	March 5, 7	Chapter 7
	More Testing	March 12, 14,	Chapter 8
<b><i>SPRING BREAK, March 18-22</i></b>			
	Still More Testing	March 26, 28	Chapter 8
	Dummy Variables	April 2, 4	Chapter 9
<b><i>EXAM II, Tuesday, April 9</i></b>			
<b>IV. COMPLICATIONS</b>			
	Heteroskedasticity	April 11, 16, 18	Chapter 11
	Autocorrelation	April 23, 25	Chapter 12
<b>V. OTHER TOPICS</b>			
	<i>TBA</i>	April 30, May 2	<i>TBA</i>
<b><i>FINAL EXAM, Friday, May 10, 10:00 a.m. - 12:00 p.m. (noon)</i></b>			