ECONOMETRICS

(EC 471)

Spring 2004

Professor: Dr. Junsoo Lee

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http://www.cba.ua.edu/~jlee/ec471.htm (class)

Required Texts:

J.H. Stock and M.W. Watson, *Introduction to Econometrics* (1st edition), Addison-Wesley, 2003.

Lecture Notes, References, On line Sources:

- Copies of lecture notes will be available at the class web site.
- Reference materials will be posted frequently at the class web site.
- Students can access teaching materials for the textbook at the web site,

  http://wps.aw.com/aw_stockwatsn_economtrcs_1/

  Click on "Student Resources".

Course Description:

This course introduces students to multiple regression methods for analyzing data in economics, finance and related disciplines. Extensions include regression with discrete random variables, instrumental variables regression, analysis of random experiments and quasi-experiments, and regression with time series data. The objective of the course is for the student to learn how to conduct – and how to critique – empirical studies in economics, finance and related fields. Accordingly, the emphasis of the course is on empirical applications. The mathematics of econometrics will be introduced only as needed and will not be a central focus.

Software:

The course statistical software is STATA, which is available on the computer lab. The data for the problem sets will be posted on the course Web page. You may purchase STATA through www.stata.com at an academic price but this is strictly optional.

Exams, Quizzes and Assignments:

Exams consist of essay type questions. The final exam is comprehensive. Make-up exams will not be given unless the student has a medical or other serious reason, in which case the student must be able to obtain a letter including a signature and telephone number. Points will be deducted for late assignments. Calculators may be used on exams, but may not be shared. All exams are closed book.

There will be short quizzes after finishing each chapter. There will be weekly problem sets, each of which involves empirical analysis. Students should hand in homework assignments before class on the day they are due. Assignments will be distributed in class or on line.
Students are encouraged to work with others in the class on their problem sets, but each student must write up his or her answers separately. The maximum group size is 2.

Grading Policy:

Your final grade is determined by your performance on the quizzes, assignments, midterm exams, final exam, class attendance and participation. Grades will be reduced for excessive absences (more than 2 absences). The weights attached to each are show below:

Two Midterm exams	200 points
Final Exam	150 points
Assignments/Quizzes	80 points
Class attendance and participation	20 points

	Total 450 points

A	90-100%
B	80-89%
C	70-79%
D	60-69%
F	below 60%

Course Requirements:

I require two things of you. First, you must attend class. Attendance is important for your individual success in the course. Second, you must prepare for class by reading the assigned readings beforehand. The assigned readings are the Stock-Watson text. If one commits himself or herself to such a routine, then this course will prove both emotionally manageable and intellectually rewarding.

Students are expected to read the required readings in the textbook prior to the lecture. It is recommended that students work on the relevant chapter problems in the *Student Resources* web site at http://wps.aw.com/aw_stockwatsn_economtrcs_1/

Recommended end-of-chapter problems will be discussed in class as time permits.

Academic Conduct and Etiquette:

All acts of dishonesty in any work constitute academic misconduct. Cell phones must be turned off during class time.

Disability Access Statement:

To request disability accommodations, contact Disabilities Services (348-4285). After initial arrangements are made with Disabilities Services, contact course instructor.

Course Outline:

The following is the course outline and the assigned readings.

Topics	**Readings**
Part I. FUNDAMENTALS OF REGRESSION ANALYSIS.	
1. Linear Regression with One Regressor	S&W, Ch. 4
2. Linear Regression with Multiple Regressors	S&W, Ch. 5
3. Nonlinear Regression Functions.	S&W, Ch. 6
4. Assessing Studies Based on Multiple Regression	S&W, Ch. 7
Midterm 1	
Part II. FURTHER TOPICS IN REGRESSION ANALYSIS.	
5. Regression with Panel Data	S&W, Ch. 8
6. Regression with a Binary Dependent Variable	S&W, Ch. 9
7. Instrumental Variables Regression	S&W, Ch. 10
Midterm 2	
8. Selection Bias Models	reference
9. System of Equations	reference
Part III. REGRESSION ANALYSIS OF ECONOMIC TIME SERIES DATA	
10. Introduction to Time Series Regression and Forecasting	S&W, Ch. 12
11. Estimation of Dynamic Causal Effects*	S&W, Ch. 13
12. Additional Topics in Time Series Regression*	S&W, Ch. 14
Final Exam (May 3, Monday, 7 – 9:30 PM)	

* can be skipped