

ECONOMICS 327
DR. JUNGHO BAEK

COURSE OUTLINE
FALL 2014

**ECONOMICS 327:
INTRODUCTION TO ECONOMETRIC METHODS**

DUCKERING 342, M W F, 10:30 a.m.-11:30 a.m.

Instructor Information

Instructor: Jungho, Baek
Office Hours: Mon/Fri 3:30 -4:50 p.m. or by appointment
Office Location: 213B Bunnell
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Required Text:

Maddala G.S. and Lahiri K., "Introduction to Econometrics (4th edition)", John Wiley & Sons 2009.

Course Description

ECON 327 is a one-semester undergraduate-level course in econometrics. While this course is basically a follow-up to ECON 227, the emphasis is on the application of econometrics in the analysis of economic and business problems. The main topics covered include a review of statistics, simple and multiple regression analysis, and important problems that may arise when applying regression analysis to real datasets such as multicollinearity, heteroskedasticity and serial correlation. Prerequisites: STAT F200X and ECON 227.

Course Objectives

The main objective of this course is to develop an understanding of basic econometric techniques and their applications to business, economic and government policy.

Student Learning Outcomes

We will develop the basic tool kit necessary to describe and analyze data intelligently. The material covered will provide a solid background for later courses in business and economics.

Instructional Methods

The course formats include class lectures with reading and homework assignments and hands on computer modeling.

Grading Policy

Grades will be based on performance in the following:

Attendance: 10%
Homework: 10%
Quizzes: 10%
Two midterm exams: 35%
Final exam: 35%

Grades are nominally determined by a weighted average of standard scores on attendance, homework, two midterm exams and the final exam. A standard scale will be used for grading (90%-100% =A; 80%-89% = B; 70%-79% = C; 60-69% =D; 59% and below =F).

Attendance

You are expected to attend every class. You are allowed one unexcused absence without penalty. Each unexcused absence will lower your course grade by 2%. If you miss 5 unexcused absences, you will receive 0 points for attendance (please see the Course Policies for excused absences).

Homework/Quizzes

Problem sets and quizzes will be assigned on a regular basis. You will receive a 10% penalty of the total score for each day a problem set is late. Problem sets may not be handed in once solutions have been distributed.

Exams

There will be two one-hour midterm exams. The final exam will cover all course material, but will emphasize the material discussed after the second midterm exam. You will not be allowed a makeup exam unless you have an excused absence (please see the Course Policies for excused absences).

Course Policies

Honesty is a primary responsibility of you and every other UAF student. The following are common guidelines regarding academic integrity, also see

<http://www.uaf.edu/catalog/current/academics/regs3.html>:

1. Students will not collaborate on any quizzes, in-class exams, or take-home exams that contribute to their grade in a course, unless the course instructor grants permission. Only those materials permitted by the instructor may be used to assist in quizzes and examinations.
2. Students will not represent the work of others as their own. A student will attribute the source of information not original with himself or herself (direct quotes or paraphrases) in compositions, theses, and other reports.
3. No work submitted for one course may be submitted for credit in another course without the explicit approval of both instructors.

The University has formal policies concerning missing class or exams for reasons of illness, death in the family, religious holidays, other exams, or other reasons. These policies will be followed in determining the required action. Two general principles should be kept in mind. First,

when possible, arrangements are to be made in advance. Second, written documentation may be required to substantiate the conflict.

Support Services

Some of economics TAs will be available for help. Students are also strongly recommended to use office hours.

Disability Statement

UAF makes reasonable accommodations for persons with documented disabilities. Students should notify the Disability Services Coordinator located in the Center for Health and Counseling, and their instructors of any special needs. Instructors should be notified within the first days of classes.

Course Outline

All of the readings are from the textbook, and are indicated by chapters and section numbers.

Week 1	I. Introduction 1. What is Econometrics?: Ch 1 2. Brief Review of Statistics: Ch 2 II. Simple Regression Analysis 1. Introduction: Ch 3.1 to Ch 3.3	HW#1
Week 2	2. The Method of Least Squares: Ch 3.4 3. Statistical Inference: Ch 3.5 4. Analysis of Variance for the Simple Regression Model: Ch 3.6 5. Alternative Functional Forms for Regression Model: Ch 3.9	HW#2 Quiz#1
Week 3	III. Multiple Regression Analysis 1. Introduction: Ch 4.1 to Ch 4.2 2. Statistical Inference: Ch 4.3 3. Interpretation of the Regression Coefficients: Ch 4.4 4. Analysis of Variance and Tests of Hypotheses: Ch 4.8 5. Degrees of Freedom and R^2 : Ch 4.10	HW#3
Week 4	6. Other Important Topics: Ch 4.5 to Ch 4.7, Ch 4.11 to Ch 4.12 Review	Midterm #1 (Ch1-4)
Week 5	IV. Heteroskedasticity 1. Detection of Heteroskedasticity: Ch 5.2 2. Consequences of Heteroskedasticity: Ch 5.3 3. Solutions to the Heteroskedasticity Problem: Ch 5.4	HW#4
Week 6	4. Other Topics Related to Heteroskedasticity: Ch 5.5 to Ch 5.6 V. Multicollinearity 1. Some Illustrative Examples: Ch 7.2 2. Some Measures of Multicollinearity: Ch 7.3 to Ch 7.4	HW#5
Week 7	3. Solutions to the Multicollinearity Problem: Ch 7.5 4. Miscellaneous Other Solutions: Ch 7.7 to Ch 7.8	Quiz#2

Week 8	VI. Dummy Variables 1. Dummy Variables for Changes in the Intercept: Ch 8.2 2. Dummy Variables for Changes in the Slope: Ch 8.3 3. Dummy Variables under Heteroskedasticity: Ch 8.6	HW#6
Week 9	4. Dummy Dependent Variables: Ch 8.7 Review	Midterm #2 (Ch5-8)
Week 10	VII. Introduction to Time-Series Analysis 1. Introduction: Ch 12.1 2. Two Methods of Time-Series Analysis : Frequency Domain and Time Domain: Ch 12.2 3. Stationarity and Nonstationary Time Series: Ch 12.3	HW#7
Week 11	4. Estimation of AR, MA, and ARMA Models: Ch 12.5 VIII. Models of Expectations and Distributed Lags 1. Model of Expectations: Ch 13.1 to Ch 13.4	HW#8
Week 12	2. Two Illustrative Examples: Ch 13.5 3. Expectational Variables and Adjustment Lags: Ch 13.6 to Ch 13.8	HW#9
Week 13	4. Rational Lags and Rational Expectations: Ch 13.9 to Ch 13.10 5. Serial Correlation Problem: Ch 13.13	Quiz#3
Week 14	IX. Serial Correlation 1. The Durbin-Watson Test: Ch 6.2 and Ch 6.6 2. Estimation Procedures with Autocorrelated Errors: Ch 6.3 to Ch 6.4	HW#10
Week 15	3. Effect of AR(1) errors on OLS Estimates: Ch 6.5 4. Tests for Serial Correlation in Models with Lagged Dependent Variables: Ch 6.7 to Ch 6.8 Review	HW#11

Changes

All of the above schedule and procedures are subject to change. Changes, if needed, will be announced.