

University of Illinois
Spring 2010

Department of Economics
Sung Y. Park

Econometric Analysis
ECON 507

This is an introductory course in econometrics. This is the Ph.D level econometrics for the first year graduate students, who finished Ph.D level Economic Statistics (Econ 506) satisfactorily. I assume that you have taken Econ 506 or equivalent course. This course aims to provide solid econometric foundation for both theorists and empirical economists. The teaching assistant for this course will help students follow the classes.

Location and Time.

Tu and Th: 2:00-3:50 pm; DKH 215 (Section AL1 : Non-Econ PhD).

Tu and Th: 4:00-5:50 pm; DKH 215 (Section ALA : Econ PhD).

Course web page: <http://www.sungpark.net/ECON507.html>

Suggested Textbook.

GREENE, W. (2008) *Econometric Analysis*, 6E, Prentice-Hall.

DAVIDSON, R. AND MACKINNON, J.G. (2004) *Econometric Theory and Methods*, Oxford University Press.

I will also draw materials from

AMEMIYA, T. (1985) *Advanced Econometrics*, Harvard University Press.

FLORENS, J, MARIMOUTOU, V AND PEGUIN-FEISSOLLE, A (2007) *Econometric Modeling and Inference*, Cambridge University Press

GOURIEROUX, C AND MONFONT, A. (1989) *Statistics and Econometric Models I and II*, Cambridge University Press.

HAYASHI, F. (2000) *Econometrics*, Princeton University Press.

MITTELHAMMER, R.C., JUDGE, G.G AND MILLER, D.J. (2000) *Econometric Foundations*, Cambridge University Press.

I will not, however, follow any particular books. For your convenience, useful notes (written by Prof. Anil Bera) on the course will be available from the Dup-it Copy Shop, 808 S. Sixed St.

Teaching Assistant. Vidisha Vachharajani (vvachha2@illinois.edu) is the teaching assistant for this class, who will help you to follow this course. You will meet her for discussion from 5:00 pm through 6:50 pm at DKH 123. Her office hour will be announced shortly.

Course Evaluations.

1. **Participation.** Students are encouraged to actively participate in the class instead of just listening to the lecture. I will ask many questions to students, and expect them to answer properly. If you have any question about course materials or topics we discuss, you are encouraged to ask those questions, particularly during class.
2. **Examinations.** There will be a (or possibly two) midterm and one final examinations. The final examination that covers the whole material in order to check whether you understand the material properly. There will be also several homework. All students are expected to take examinations at the same time except for a special circumstance in which I may offer a make-up examination. If there is any conflict between the exam date and your special activity, you are required to inform me of the conflict as soon as possible but no later than two weeks before the date of examinations, and must have a proper document from a dean or other authorities to prove that you have a compelling reason. It is the responsibility of the student to supply the necessary documents in time. The rule will be strictly enforced. The dean or doctor's statement should explain why your particular concern prevents you from taking the test.
3. **Grade.** Your grade will be determined based on your total score which will be a weighted average of the followings: Homework (20%); Midterm (40%); Final (40%) (or Midterm I (25%); Midterm II (25%); Final (30%)). If you are not satisfied with grading of an examination or homework, you should submit your complaints in writing. After reviewing a written complaint, your entire examination will be re-graded, and the result will be final.
4. **Homework.** There will be four problem sets. Most problem sets will consist of solving well-defined problems.
5. **Some comments.** Students are expected to attend the entire class. You should turn off your cell phone so that the other students can focus. It is your responsibility to make up for a missed class. Ask your classmates what you have missed. Do the readings before

class. This will allow you to get more from the class and to more actively contribute to the class. You will find some reminders or announcement in course website.

6. **Office hour.** My office hour is 10:00 am - 12:00 pm on W. If you want to see me sometime other than the regular office hour, simply stop by my office. It might be more convenient to make an appointment before you come. No questions through electronic mail or phone will be answered.

Outline of Course

1. Simple Regression Analysis
2. Matrix Algebra
3. Multiple Regression Analysis
4. Hypothesis Testing with the Multiple Regression Model
5. Nonnormal Disturbance
6. Heteroskedasticity
7. Autocorrelation
8. Instrumental Variable Estimation
9. Generalized Method of Moment Estimation
10. Time Series Analysis
11. Non-parametric Regression
12. Discrete Choice Model