Economics 483: Econometric Application

Instructor: Seojin Lee
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Course Description:

This course provides an introduction to econometric tools with an emphasis on applications. Naturally we will cover some of the theoretical framework underpinning econometrics but our focus will be on developing functional quantitative analysis skills. A critical component of this is working with real data and learning how to implement econometric models in a computing environment. To this end, we will be learning and working with the programing language and writing an original research paper on a topic of your choosing. Prerequisites for the class are intermediate economic theory through ECON 301, differential calculus, and a basic statistics class. (e.g., STAT 311, STAT 341, SATA 390, etc)

Textbook:

- 'Introductory Econometrics: A Modern Approach,' 5th Edition, Jeffrey M. Wooldridge
- 'Introduction to Econometrics' 4th Edition, Christopher Dougherty.

Grading:

- Problem sets (20%): Problem sets will include a mix of econometric theory and applications using programing.
- Midterm (20%): There will be an in-class written exam. The exam will be a mix of theory components and questions about practical implementation.
- Final (30%): There will be an in-class written exam. The exam will cover some of the econometric models presented in the latter half of the class but the overwhelming emphasis will be on applications.
- Research Paper (30%): You will formulate an economic question you wish to investigate, find data, and perform original analysis of the problem. The paper will be about 10 pages long. Your paper should also be clear and well written in word.

The grading policy of the Department of Economics determines the range for the Median grade to be between 2.9 and 3.1. A distribution of the grades on a 4.0 scale will be determined from the raw scores out of 100 to maintain this policy.

Make-up Exams:

There are **no make-up exams** for any of the tests (midterm or final exam). If you have some verifiable documentation of the circumstances that resulted in you missing more than one quiz, we will take the average of the other quizzes you will take and record it as the grade for the quiz you have missed. In the rare circumstance of a student being hospitalized just prior to or during the midterm due to an accident or other ailment, I will write a make-up for the midterm if verifiable documentation from the hospital is provided. There is **no make up for the final**. If you happen to miss the final, you will receive **a zero grade** for that exam in the course.

Academic Honesty:

All work submitted, whether for exams or problem sets, must be your own, original work submitted solely in this class. Cheating and plagiarism will not be tolerated. More detailed information on proper academic conduct is provided on the handout attached to this syllabus. The Department of Economics will follow university policy in case of academic dishonesty. These rules are spelled out at:
http://www.washington.edu/uaa/advising/help/academichonesty

Topics:

- Review of mathematical statistics
- The simple regression Model
- Multiple regression Analysis
- Dummy variables
- Time series Analysis
- Serial Correlation and Heteroskedasticity