Econometric Analysis

ECON 4223 (Spring 2018)

TIME: TUESDAYS AND THURSDAYS 12:00 - 1:15 PM
ROOM: CCD1 237

Instructor: Kim, Jaeho
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Office hours: Tuesdays and Thursdays 2:00-3:00 pm

Required Textbook:

Selected chapters from Introductory Econometrics: a Modern Approach. 5th edition (by Woodridge)
ISBN: 9781111531041
Publisher: Cengage Learning

The required text book is enough for our discussion. Additional materials used in class will be posted in our class website. ( ozone.ou.edu )

Optional Textbook:


Course Description:

This course is designed to provide an intensive introduction to econometric methods. The main topics covered in class are estimation and statistical inference in linear regression models. We derive estimators for fairly standard regression models and show their important statistical properties. (e.g. unbiasedness, consistency, efficiency, …) These tools are frequently used by social scientists to find meaningful relationships among economic variables and conduct hypothesis tests. The ultimate goal of this course is to equip students with necessary skills to proficiently develop regression models and apply them to various economic issues. Students will be required to use computer software STATA to conduct their own independent research.
**Prerequisites:**
Undergraduate level ECON 1113 Minimum Grade of C and Undergraduate level ECON 1123 Minimum Grade of C and Undergraduate level ECON 2843 Minimum Grade of C

**Grading Policy:**
There will be several homework, and two exams for this course. Homework will be passed out every two weeks approximately. Every student must submit a research proposal by March 11 and a completed research paper by May 6. You should get started with your project as soon as possible. Do not wait until the last minute. Your final grade will be calculated in the following manner:

\[(100\% = \text{Midterm exam} 30\% + \text{Final exam} 30\% + \text{Independent Research} 30\% + \text{homework} 10\%\]

**Exams:**
Each exam will count for 30% of your grade, respectively. They are not cumulative. Each exam will be about 1 and half hour in length and are closed book. There is no make-up exam for midterm exam. (If you already know that you cannot take midterm exam, you will not be able to take this class.) If you could not take final exam for an avoidable situation, one more chance will be given with an official document to prove it. If you are not in the condition to re-take the exam, 60% of the average of all the scores from homework, and the first exam will be given for the second exam with an official document.

**Midterm exam is scheduled on Thursday, March 15, 2018, 12:00~1:15 PM, CCD1 237**

**Final exam is scheduled on Thursday, May 09, 2018, 1:30~3:30 PM, CCD1 237**

**Independent Research:**
Your research paper should contain the following contents.

1. Introduction and Motivations for your research
2. The literature review
3. Econometric Models
4. Empirical Results
5. Economic implications
6. Summary and Conclusions

First, think about a researchable and interesting economic problem. (To conduct your research, relevant data should be available.) It is good to find a topic worth investing your valuable time.

Second, search for similar studies. It is totally fine just to replicate the empirical results of the existing studies or update them by borrowing econometric models or using different data sets. But make sure to mention in your paper how you can make a marginal or significant contribution to the existing studies.
Third, do not try to be ambitious. As long as the implications in your paper economically make a sense, employing a simple linear regression model is totally fine. Always think about how to make an econometric model as simple as possible and avoid complicating models.

**Homework:**

Homework will be given out in class on particular Thursdays. They are meant as a guideline on how well you understand the material presented in class and in the textbook. To get a good grade from this course, you should be able to understand and solve all the problems in the homework. **Note that basic STATA skills will be required to complete the homework.**

**Extra Grade:**

Students who participate actively in class will receive extra credits up to 0.2 on a 4.0 scale. The maximum number of recipients will be about 5%~10% of class.

“It is the policy of the University to excuse absences of students that result from religious observances and to provide without penalty for the rescheduling of examinations and additional required class work that may fall on religious holidays.”

**Tentative Course Schedule**

Appendixes A, B, C: Basic MATH and STATS Tools

Ch2. The Simple Regression Model

Ch3. Multiple Regression Analysis: Estimation

Ch4. Multiple Regression Analysis: Inference

Ch5. Multiple Regression Analysis: OLS Asymptotics

Ch6. Multiple Regression Analysis: Further Issues

Ch7. Multiple Regression Analysis with Qualitative Information: Binary (or Dummy) Variables

Ch8. Heteroskedasticity

Ch 13. Pooling Cross Sections Across Time: Simple Panel Data Methods

Ch15. Instrumental Variables Estimation and Two Stage Least Squares