Department of Economics and Finance

ECON*4840/6180
Applied Econometrics II
Winter 2014

Instructor: Professor Yiguo Sun

Office : 709 MacKinnon, Ext. 58948
Office Hours: Mon., Wed., 2:00-5:00pm
Classes: Mon., Wed., 10:00-11:20 am MacK306

I am willing to provide as necessary help as possible to all my students. However, to promote better results from my office hours, please read the textbook at least twice before dropping by my office.

It is your responsibility as a student to be aware of and to abide by the University's policies regarding academic misconduct, e-mail communication, maintaining copies of out-of class assignments, what to do when you cannot meet a course requirement and the drop date for a semester. To better understand these policies, please visit:

http://www.uoguelph.ca/economics/node/1115

COURSE OUTLINE

This course follows 6050 and is the second graduate level course offered to MA students, although undergraduate students can also take this course if he/she has finished ECON3740 and ECON4640 with good standing. ECON6050 mainly focuses on OLS and IV approach to analyze cross-sectional data. Now we will extend the OLS estimation method to time series data and pooled cross section data. Panel data set with both cross-time and cross-sectional attributes are hot subjects these days due to its enhanced ability over other data types in evaluating policy changes, training programs and so on. We will also cover limited dependent variable models (including binary choice models and multiple discrete choice models and count data models) in the end of the semester.

Marking scheme:

25% Assignments (tentatively FIVE, each worth 5%)
15% Term paper (due on April 9; at least 10 pages with 1.5-sentence space; self-selected project)
5% Presentation (the last two classes)
20% Midterm exam (in class; February 12, 2014)
35% Final exam (7pm-9pm, April 9, 2014)

Software: STATA or R or any other software

Textbook:

Wooldridge, J.M., 2012. Introductory Econometrics: a Modern Approach, fifth edition. Thomson: South-Western. (Tentatively, we will cover Parts 2 and 3. ***Two early versions of the book are available from the library and one is reserved for a two-hour loan.*** Please read Appendices A-E and Chapter 19!)

Reference books: Both are available at McLaughlin library.

1) Brockwell and R.A. Davis, 1996. Introduction to Time Series and Forecasting.
2) Brooks, Chris, 2008. Introductory to Econometrics for Finance, 2nd Edition.

Note:

A. A 1% bonus is to given to students for communicating your research idea with me no latter than March 15, 2014.
B. A general format of the term paper is given as follows, which can be slightly changed with personal discretion:
    - A title followed by your names and the date of submission
    - Abstract: to summarize the paper
    - Introduction: to motivate and explain what the paper is about
    - Data: to give the source of the data and basic summary statistics of the data
    - Model and estimation results: to explain which econometric model is used to analyze the data and what are the **empirical findings**.
    - Conclusion: to conclude the main results of the paper and summarize the potential pitfalls of the econometric methods used in the paper.
    - Tables and Figures: you can choose to either list all the tables and figures at the end of the paper or insert them in the context where it is required.
    - References: to list relevant articles cited in the paper.
    - Program Code: to insert your computer programming code used to produce all the tables and figures reported in the paper.

    Please email your data and program code to yisun@uoguelph.ca when submitting your term paper (a hardcopy or a pdf file). If the data file itself is not clear enough to explain what the data are, please also write a **Readme.txt** file to describe the name of the data variables, etc.

C. I will post relevant class information to CourseLink to either clarify questions about course content or announce news, so please sign in the course listed at CourseLink **at least once per week**.

D. You will be asked to complete an evaluation of this course at sometime during the last two weeks of the semester. Course Evaluations will be done in class. The Department of Economics policy regarding the conduct and use of these evaluations will be found at:

http://www.uoguelph.ca/economics/academics/courses/course-evaluation

The Department of Economics and Finance Learning Objectives (skills and knowledge competencies) for this course:

Skills:

1) **Written Communication**—written assignments are used to evaluate your **understanding** of course material, and the term project is used to evaluate not only your **understanding** of course material, but also your **analytical** skill for real world issue.
2) **Oral Communication/Presentation**—in-class presentations will be scheduled to report your ongoing **analysis** of your term project. You are expected to **understand** how to **apply** the skills learned in class to real world problem.
3) **Numerical Problem Solving**—STATA is used to work on data **analysis**.
4) **Analytical Problem Solving—**you are required to **calculate** mean, variance and covariance for conditional and unconditional case.
5) **Problem Solving in a Real World Context**—the term project is aimed to **apply** econometrics skill s learned in class to real world economic and finance problem.
6) **Computer skills**—STATA is used to work on data analysis.

Knowledge:

1) **Mathematical Methodology**—basic mathematical skills are required.
2) **Statistical and Econometric Methodology** – this course covers time series and panel data analysis.
3) Macroeconomic Modeling—Phillips inflation curve with or without rational expectation is to be **analyzed**.
4) **Understanding of Specific Markets**—in-class examples come from financial econometrics, labor economics and macroeconomics.
5) **Historical context**: students need to write a brief historical review on the term project.
6) **Economic Policy and Regulation**: panel data models are to be **applied** to **evaluate** impacts of government policy changes.