Economics 6630

Applied Econometrics - Spring 2015
3 Credits

General Information[1]

Prerequisites: ECON 4010, 4020, 4650 and 6610 (recommended).
Time: Mondays 6.00PM to 9.00PM.
Location: OSH 273

Instructor: Eric Sjöberg
E-mail: eric.sjoberg@economics.utah.edu
Office Hours: Thursdays 9.00AM- 10.00AM or by appointment
Location: OSH 374

Course Overview

In this course we will cover some important topics in the empirical analysis of micro and macro data. We will discuss selected cross-section, panel data and time series techniques. We will study quasi-experimental methods such as instrumental variables and difference in differences with a focus on the possibility of using non-experimental data to estimate causal effects. We will also talk about the advantages and drawbacks of using randomized controlled experiments in social science studies.

Course Objectives

In this course, you will be prepared to:

- Use Stata to analyze experimental and non-experimental data.

- Have a good understanding of different econometric methods that can be used to extract causal estimates from non-experimental data.

- Use basic time series methods.

- Analyze, criticize and replicate published research papers.

For specific topics, please see the tentative schedule in this syllabus.

Required Texts

Wooldridge, J.M. "Introductory Econometrics: A Modern Approach", latest edition. This is the book that the lectures will be based on. Other suggested (but not required) texts are Green, W.H., "Econometric Analysis", Wooldridge, J.M. "Econometric Analysis of Cross Section and Panel Data" and Enders, W. "Applied Econometrics Time Series". The suggested texts are a bit more specialized and go deeper into the theory of different topics. Angrist and Pischke "Mostly Harmless Econometrics" is an excellent book that I think every Econometrician should read.

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[1]This syllabus is meant to serve as an outline and guide for the course. Please note that it may be modified at any time with reasonable notice to students. The schedule might also be modified at any time to accommodate the needs of the class. Should you have any questions or concerns about the syllabus, please contact me for clarifications.

Teaching and Learning Methods

The course will be based on in-class lectures. We will go through theory and I will demonstrate how to apply the techniques that we learn in practice. We will also have discussions, where active participation is encouraged, of how econometrics has been applied in different research papers and how econometrics results can be interpreted.

Computers and Software

We will use software to solve some of the assignments in this course. The main program is Stata and the solutions to the assignments will be presented using this program. You will have access to Stata through the university or you can purchase a student version of the program. If you have a strong desire to use another statistical software, please contact me in advance.

Policies

You should speak with me in advance to request special consideration in the case of some extenuating circumstance that prevents you from taking an exam or submitting an assignment at the scheduled time. Attendance is mandatory 4/20 and 4/27, otherwise consistent attendance is strongly recommended but attendance is not taken.

Course Requirements

Evaluation will be based on the following.

Activity	Grade Weighting
Assignments	30%
Projects	60%
Advance readings	10%

Grading Scale

Grade	Score (s)				
A	0.92	$\leq$	s		
A⁻	0.9	$\leq$	s	$<$	0.92
B⁺	0.88	$\leq$	s	$<$	0.9
B	0.82	$\leq$	s	$<$	0.88
B⁻	0.8	$\leq$	s	$<$	0.82
C⁺	0.75	$\leq$	s	$<$	0.80
C	0.70	$\leq$	s	$<$	0.75
C⁻	0.65	$\leq$	s	$<$	0.70
D⁺	0.63	$\leq$	s	$<$	0.65
D	0.57	$\leq$	s	$<$	0.63
D⁻	0.55	$\leq$	s	$<$	0.57
E			s	$<$	55

There will be a set of assignments (preliminary 5-6) for you to hand in. Some of these will require analysis with the help of Stata. I will introduce you to the software and also give you a brief reference guide on the most common commands. In addition to the assignments, there will be two projects that should be handed in at the end of the course. These projects will be described in detail on the first day of class. I recommend that you read Chapter 19 in Wooldridge for an introduction to econometric research in practice. To encourage advance

reading, you will be asked to submit some reflections on the upcoming topics based on readings in Wooldridge to show that you have gotten acquainted with the material.

Students with disabilities

The University of Utah seeks to provide equal access to its programs, services and activities for people with disabilities. If you will need accommodations in the class, reasonable prior notice needs to be given to the Center for Disability Services, 162 Olpin Union Building, 581-5020 (V/TDD). CDS will work with you and the instructor to make arrangements for accommodations.

Wellness Statement

Personal concerns such as stress, anxiety, relationship difficulties, depression, cross-cultural differences, etc., can interfere with a student's ability to succeed and thrive at the University of Utah. For helpful resources contact the Center for Student Wellness; www.wellness.utah.edu; 801-581-7776.

Tentative Schedule

Week	Mon	Topics[a]	Note
1	1/12	Statistical and Probability Theory	
2	1/19		Martin Luther King Jr. Day Holiday
3	1/26	Introduction to regression, simple OLS model	Assignment 1 due
4	2/2	Multivariate Analysis	
5	2/9	Multivariate Analysis Functional Form	Assignment 2 due
6	2/16		President's Day holiday
7	2/23	Writing and analyzing an econometrics paper	
8	3/2	Linear probability model, probit and logit	Assignment 3 and research plan due
9	3/9	Instrumental Variable Regression	
10	3/16		Spring Break
11	3/23	Panel Data	Assignment 4 due
12	3/30	Panel Data	
13	4/6	Experimental Methods in Econometrics	Assignment 5 due
14	4/13	Time Series Analysis	Replication Project due 4/13
15	4/20	Final Project Presentations	
16	4/27	Final Project Presentations	Research Project due 4/29

[a] Readings and supplementary articles will be assigned for each topic.