Economics 6630

Applied Econometrics - Spring 2017
3 Credits

General Information[1]

Prerequisites: ECON 4010, 4020, 4650 and 6610 (recommended).
Time: Mondays 6.00PM to 9.00PM.
Location: BEH S 115

Instructor: Eric Sjöberg
E-mail: eric.sjoberg@economics.utah.edu
Office Hours: Wednesdays 9.30AM to 10.30AM or by appointment
Location: Bldg 73 Rm 238

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 possibilities 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 all lectures and will be given weight in the final grade.

Course Requirements

Evaluation will be based on the following.

Activity	Grade Weighting
Assignments	35%
Projects	50%
Advance readings and attendance	15%

Grade	Score (s)				
Grading Scale					
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	<	0.55

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. Class rosters are provided to the instructor with the students legal name as well as Preferred first name (if previously entered by you in the student profile section of your CIS account). Please advise me of any name or pronoun changes (and update CIS) so I can help create a learning environment in which you, your name, and your pronoun will be respected.

Tentative Schedule

Week	Mon	Topics[a]	Note
1	1/8	Statistical and Probability Theory	
2	1/15		Martin Luther King Jr. Day Holiday
3	1/22	Introduction to regression, simple OLS model	Assignment 1 due
4	1/29	Multivariate Analysis	
5	2/5	Multivariate Analysis Functional Form	Assignment 2 due
6	2/12	Writing and analyzing an econometrics paper	
7	2/19		President's Day holiday
8	2/26	Linear probability model, probit and logit	Assignment 3 due
9	3/5	Instrumental Variable Regression	Research plane due
10	3/12	Panel Data	Assignment 4 due
11	3/19		Spring Break
12	3/26	Panel Data	
13	4/2	Experimental Methods in Econometrics	Assignment 5 due
14	4/9	Time Series Analysis	Replication Project due 4/9
15	4/16	Final Project Workshop	
16	4/23	Final Project Presentations	Research Project due 4/26

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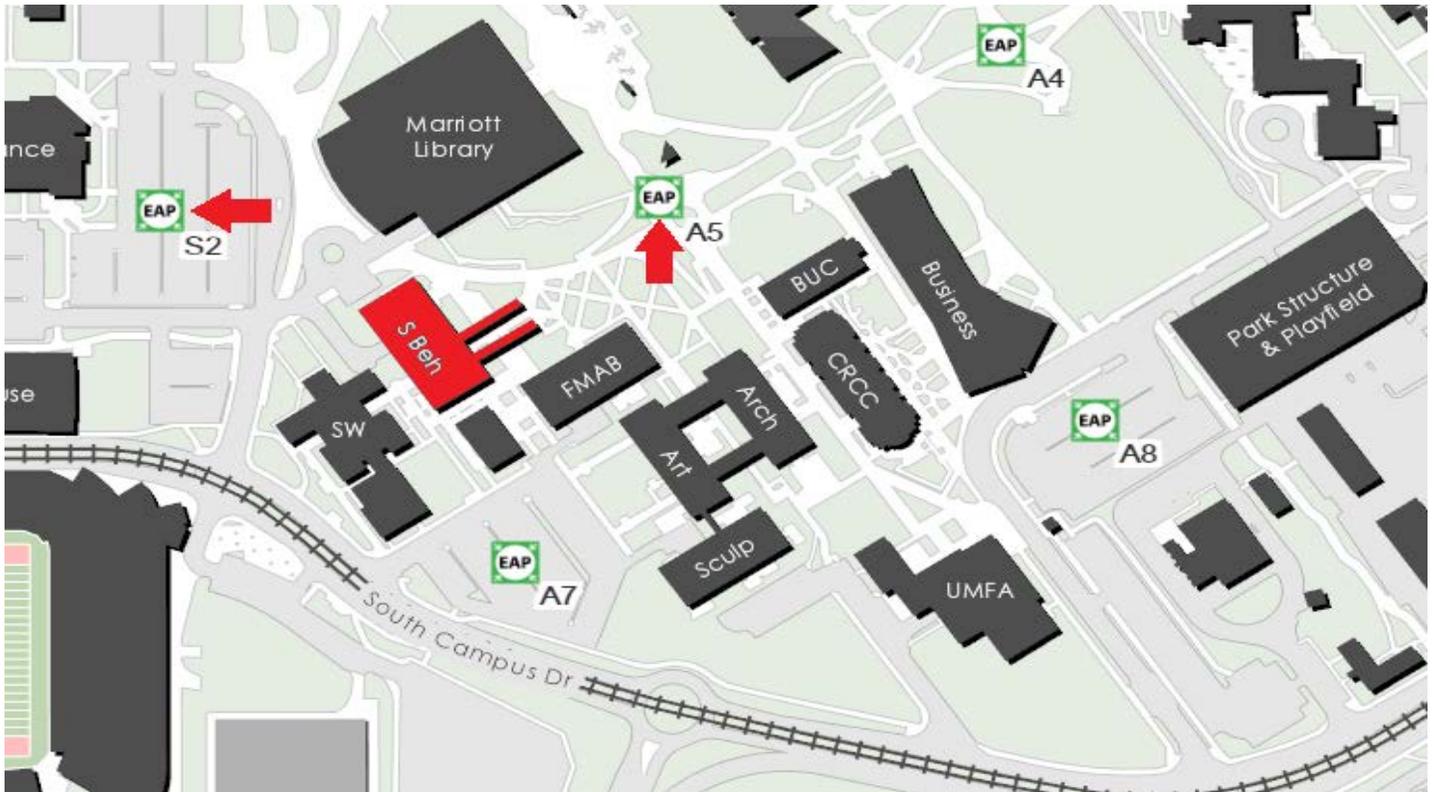
BUILDING EVACUATION

EAP (Emergency Assembly Point) – When you receive a notification to evacuate the building either by campus text alert system or by building fire alarm, please follow your instructor in an orderly fashion to the EAP marked on the map below. Once everyone is at the EAP, you will receive further instructions from Emergency Management personnel. You can also look up the EAP for any building you may be in on campus at http://emergencymanagement.utah.edu/eap.

CAMPUS RESOURCES

U Heads Up App: There's an app for that. Download the app on your smartphone at alert.utah.edu/headsup to access the following resources:

- **Emergency Response Guide:** Provides instructions on how to handle any type of emergency, such as earthquake, utility failure, fire, active shooter, etc. Flip charts with this information are also available around campus.

- **See Something, Say Something:** Report unsafe or hazardous conditions on campus. If you see a life threatening or emergency situation, please call 911!

Safety Escorts: For students who are on campus at night or past business hours and would like an escort to your car, please call 801-585-2677. You can call 24/7 and a security officer will be sent to walk with you or give you a ride to your desired on-campus location.

College of
Social and Behavioral Science
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