Economics 4650 – Principles of Econometrics

Section - 001, Spring 2012

Monday & Wednesday, 11:50 PM-01:10 PM, WEB 1230

Instructor: Dr. Haimanti Bhattacharya

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## Objective

The objective of this class is to learn to use the basic econometric tools for empirical analysis. Prerequisite for this class is Econ 3640 or equivalent. This is an applied class that aims to prepare you to work with data in a job environment or in graduate school. At the end of the semester you should be able to

- Conduct multivariate regression analysis
- Detect and deal with violations of classical model assumptions
- Collect, summarize and analyze data using an econometric package like STATA

## Evaluation will be based on

- Assignments (50%)
- Mid-term exam (25%)
- Final exam (25%)

Course grade criterion:  $A \ge 90\%$ ,  $90\% > B \ge 80\%$ ,  $80\% > C \ge 65\%$ ,  $65\% > D \ge 50\%$ 

Suggested Textbook

Wooldridge, Jeffrey M. *Introductory Econometrics – A Modern Approach*. ISBN-10:0-324-58162-9

## **Topics**

- 1. Introduction to Simple Linear Regression Model
- 2. Multiple Regression Model
- 3. Multiple Regression Inference
- 4. Dealing with Qualitative Variables
- 5. Detecting and Remedying Heteroskedasticity
- 6. Specification Issues

Please refer to University of Utah Guidelines for legal issues.

## Course Plan

Date	Day	Class	Topic
9-Jan	Mon	1	Introduction to Econometrics
11-Jan	Wed	2	Simple Linear Regression (SLR)
16-Jan	Mon		Martin Luther King Jr. Day holiday
18-Jan	Wed	3	SLR estimation
23-Jan	Mon	4	Properties of SLR OLS estimators
25-Jan	Wed	5	Multiple Linear Regression (MLR)
30-Jan	Mon	6	Multiple Linear Regression (MLR) Estimation
1-Feb	Wed	7	Properties of MLR OLS estimators
6-Feb	Mon	8	Inference based on MLR
8-Feb	Wed	9	Inference based on MLR
13-Feb	Mon	10	Inference based on MLR
15-Feb	Wed	11	Data Scaling and Functional forms
20-Feb	Mon	12	Data Scaling and Functional forms
22-Feb	Wed	13	Data Scaling and Functional forms
27-Feb	Mon	14	Qualitative Explanatory Variables
29-Feb	Wed	15	Qualitative Explanatory Variables
5-Mar	Mon	16	Review
7-Mar	Wed	17	Mid-term exam
12-Mar	Mon		Spring Break
14-Mar	Wed		Spring Break
19-Mar	Mon	18	Interaction of Qualitative Explanatory Variables
21-Mar	Wed	19	Interaction of Qualitative Explanatory Variables
26-Mar	Mon	20	Interaction of Qualitative Explanatory Variables
28-Mar	Wed	21	Dealing with Multicollinearity and Heteroskedasticity
2-Apr	Mon	22	Dealing with Multicollinearity and Heteroskedasticity
4-Apr	Wed	23	Specification Issues
9-Apr	Mon	24	Specification Issues
11-Apr	Wed	25	Specification Issues
16-Apr	Mon	26	Qualitative Explained Variables
18-Apr	Wed	27	Qualitative Explained Variables
23-Apr	Mon	28	Qualitative Explained Variables
25-Apr	Wed	29	Review
2-May	Wed		Final Exam (10:30 am to 12:30pm)