

ECONOMICS 423

INTRODUCTION TO ECONOMETRICS II

Spring 2016

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Time: 2:00-3:15, TuTh
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COURSE DESCRIPTION

This course goes beyond Economics 422 to cover such topics as analysis of time series data, pooling of cross section and time series data, estimation of simultaneous equation models and estimation of limited dependent variable models. The course is based on Chapters 10-17 of Wooldridge, Introductory Econometrics, A Modern Approach. You will have an opportunity to estimate these models in a series of computer projects.

PREREQUISITES

Economics 422 or equivalent is the prerequisite for this course. We will use STATA as the statistical software in all computer projects.

TEXTS

Required: Jeffrey Wooldridge. *Introductory Econometrics A Modern Approach*, 6th Edition.

GRADES

Computer problems: 15 percent of final grade
Midterm exam I: 25 percent of final grade
Midterm exam II: 25 percent of final grade
Final exam: 35 percent of final grade

COURSE SCHEDULE

1/26 Introduction
1/28 Time Series Analysis; 10.1-10.3 [Problems 10.1-10.3]

2/2 Trending and Seasonality; 10.4-10.5
2/4 Asymptotic Properties of the OLS Estimator 11.1-11.2 [Problem 11.7]

- 2/9 Highly Persistent Time Series; 11.3-11.5
2/11 Autocorrelation; 12.1-12.5 [Problems 12.1-12.4]
- 2/16 Pooling Cross Section and Time Series Data; 13.1-13.2
2/18 Two-Period Panel Data; 13.3-13.4
- 2/23 Panel Data Models; Fixed Effects; 14.1
2/25 Computer Project #1; Class meets in BSOS Labs
- 3/1 Panel Data Models; 13.5
3/3 Random v. Fixed Effects; Cluster Samples 14.2-14.3
- 3/8 Review for Midterm I
3/10 Midterm Exam I
- 3/15 Spring break – No meeting
3/17 Spring break – No meeting
- 3/22 Instrumental Variable Estimation; 15.1-15.2
3/24 Two-Stage Least Squares; 15.3
- 3/29 Tests for Endogeneity and Over-Identifying Restrictions; 15.5
3/31 Computer Project #2; Class meets in BSOS Labs
- 4/5 Simultaneous Equation Models; 16.1-16.2
4/7 Identification; 16.3-16.5
- 4/12 Review for Midterm II
4/14 Midterm Exam II
- 4/19 Binary Dependent Variables; 7.5; 17.1
4/21 Computer Project #3; Class meets in BSOS Labs
- 4/26 The Tobit Model; 17.2
4/28 Poisson Regression Models; 17.3
- 5/3 Censored and Truncated Regression Models; 17.4
5/5 Sample Selection Problems; 17.5
- 5/10 Review for Final Exam
- 5/16 Final Exam, 10:30 AM - 12:30 PM