Applied Econometric Methods –II

Faculty: Dr. Sangeetha Gunasekar

Email: sangeetha1000@gmail.com

Course description

This is an advance course in applied econometric techniques. Similar to the basic course, the aim here is to help students develop a working knowledge of econometric methods and its applications to real-world economic data. The basic course covered the ordinary least squares regression models related to simple and multiple regression methods using cross-sectional data, focusing on issues of estimation and inference. This advance course extends the regression analysis to cover qualitative regressors, panel data and simple time-series settings. While modern econometric methods are based on a number of advanced statistical concepts, the emphasis in this course is on applied methods and not on econometric theory.

Course Learning Objectives

By the end of this course students

- Should be able to understand the use of qualitative response regression models, simultaneous equation and panel data regression models
- Should be able to write a term paper demonstrating their skill to conduct independent econometric analysis of economic data.
- Should be able to read and critically appraise applied econometric analysis research papers with respect to choice of model, estimation method and interpretation

Pedagogy

The topics will be covered by lecture sessions along with hands on practical training using databases and computer software STATA/SPSS/ SAS. The text book recommended has over 100 datasets covering US and India. These datasets provide students with examples to help apply the techniques studied in class. Students are required to come prepared with their own data sets to help them analyze the data and write out the term paper. This exercise is expected to help students narrow in on their research topic for PhD thesis work.
Topic Covered

- Regression Models with Qualitative Dependent Variable
  - Logit – Probit – Tobit models
- Panel data regression model
  - Fixed Effects- Random Effects model
- Simultaneous Equation Regression model
  - Indirect Least Square Estimation – Two-Stage Least Square Estimation
- Introduction to Time series model
  - Stochastic Processes – Unit Root – Test of Stationarity – Cointegration

Text Book Recommended


Grading

Quiz/ short tests : 30%

Individual Term paper

Presentation : 20%

Term paper submission : 50%