EC 32: Econometrics II

Spring 2020

Jindal School of Government and Public Policy

O.P. Jindal Global University

Course Synopsis

This is the second part in the Econometrics sequence offered at the undergraduate level to B.A.(H) Economics students. The course is designed to extend students' knowledge of basic econometric concepts and techniques learnt in Econometrics - I. Students will learn multiple linear regression techniques with dummy variables, more functional forms, concepts of measurement errors, heteroskedasticity, instrumental variables and basic panel data methods. These skills can be utilized in analyzing data across multiple disciplines such as economics, political science, finance, business etc. Basics of STATA or R will be used to further the understanding from a practical perspective.

Prerequisites

Econometrics – I, Statistics – I and Statistics - II

Course Goals

Participants who successfully complete the course are expected to understand:

1. OLS – simple linear and multiple linear regressions;

2. CLRM assumptions and how violations of these assumptions can affect statistical inferences;

3. How to interpret OLS statistics in different functional forms – logs, quadratics, interactions, dummy variables;

4. Heteroskedasticity and endogeneity;

5. Instrumental variable approach to regression analysis;

6. Basics of the STATA or R used by economists to analyze economic data.

Class Timing

Monday 10:00 AM - 11:30 AM (online)
Wednesday 12:30 PM - 2:00 PM (online)

Instructors and Office Hours

Instructor	Nikhil Damodaran
Preferred Contact	ndamodaran@jgu.edu.in
Office Hours	Upon request, online only.

Readings

- Required Textbook: Wooldridge, J. M. (2009). Introductory Econometrics: A modern approach, 6th edition, Cengage Learning, India. [JW]

- Stock, J. H. & Watson, M. W. (2019). Introduction to Econometrics, 4th edition, Pearson [SW]

Assessment

Evaluation will be 50% (internal) and 50% (external).
Assignment - Tests/Quiz/Viva - 45%
Class participation - 5%
End term examination 50% (managed by the university)

Assessments: You will have several assessments throughout the course. I will drop your lowest score. If you are assigned take – home assignments, you will have to submit the solutions at the beginning of the class the day they are due. You can collaborate while working on these assignments but must in all cases turn in your own work. Soft copies of assignments can be submitted. Please note, if you are submitting a soft copy, it should either be in a pdf format or word format. The file name should be saved as:

`EC32_AssignmentNumber_StudentName`

Failure to follow these instructions will result in your assignment not being graded. Late assignments will be accepted only up to 24 hours after the due date and time, and the grade will be penalized by 10%. Unless the student has a physician-documented illness, submission received after 24 hours of the due date will not be given any credit.

Exams: There will no midterm for the course. There will be a final exam (50% of your grade). The final exam will be held according to University schedule.

Academic Integrity: Academic Honesty, Cheating, and Plagiarism as per University policy.
Attendance Policy: As per University policy

Course Contents

Important: This syllabus is intended to give the student guidance in what may be covered during the semester and will be followed as closely as possible. However, the instructor reserves the right to modify, supplement and make changes as the course needs arise.

- Multiple Regression Analysis: Further Issues
  JW: Chapter 6

- Multiple Regression Analysis with Qualitative Information
  JW: Chapter 7 and SW: Chapter 11

- Heteroskedasticity
  JW: Chapter 8

- More on Specification and Data Issues
  JW: Chapter 9

- Measurement error
  JW: Chapter 9

- Simple panel data methods
  JW: Ch 13; SW: Ch 10

- Instrumental variables (IV) and Two Stages Least Squares (2SLS)
  JW: Ch 15; SW: Ch 12

- Experiments & Quasi Experiments
  SW: Ch 13