

DEPARTMENT OF ECONOMICS
UNIVERSITY OF DELHI

Subject: Common Pool of GE (GE 16)
Sem.: IV
Course & Code: Basic Econometrics ECON024
Duration (per week): 4 (3 lectures + 1 Tutorial)
Date & Time: 25/01/2024 at 12.45 PM
Venue: 106, Department of Economics, Delhi University
Convenor: Satyendra Gupta, Sourav Sarkar

College Teachers

Complete list is at the end of this document.

Learning Objectives

The Learning Objectives of this course are as follows:

- This course introduces students to the econometric methods used to conduct empirical analysis based on the basic statistics.
- It offers the basic quantitative techniques needed to undertake applied research projects to establish the relationship between variables of interests across wide variety of disciplines.

Learning outcomes

The Learning outcomes of this course are as follows:

- Students will learn to estimate simple estimation and inferences about population parameters, to formulate empirical models and analyse data.
- An expertise in econometrics increases the job prospect of the students significantly.

Following points were discussed and agreed upon.

- Each unit in the syllabus has a 'practical application' mentioned. Since this course does not have a practical component. This 'practical application' is interpreted as that the instructor will present outputs from a statistical software in class and discuss with the students how the practical outputs are and interpret various results that are coming out of the applications.
- In unit III, the violation of classical assumptions that gives rise to the heteroskedasticity and/or autocorrelation will be discussed, one test to identify the heteroskedasticity and/or autocorrelation will be discussed in the classroom.
- A committee comprise of following six instructors was formed to suggest reading material for each unit of the syllabus:

Poonam Kalra (St. Stephan's College)	Gaganpreet Kaur (SGTB Khalsa College)
Anuj Goyal (Shahid Bhagat Singh College)	Deepika Goel (Aryabhatta College)
Ritu Suri (Laxmi Bai College)	Sujayata Choudhry (IP College for Women)

- The recommendation of the committee are received and incorporated here.
- Continuous assessment (40 marks) will be as per University Rules.
- Internal assessment (30 marks) will be two assignment/test of 12 marks each. 6 marks are for attendance.
- Final examination (90 marks) will have 6 questions with three parts in each question. The students need to attempt any 5 questions (5 * 6 * 3)
- Each unit will carry equal weight in final examination paper.

Syllabus

UNIT I: Regression Models (15 hours)

OLS estimators, hypothesis Testing using software and practical application; multiple Regression Model - estimation, Testing and practical application using software like GRETL/EViews/ R/Stata/EXCEL etc.

* Studenmund Ch1, 2, 4, 5

UNIT II: Qualitative variables and Estimation (15 hours)

Application of qualitative variables, Nonlinear Models, Applications of dummy variables

* Studenmund Ch-7 (till 7.3) , Gujarati & Porter- Ch-6 (till 6.5)

UNIT III: Issues with Classical Assumptions (15 hours)

Violation of normal distribution, Collinearity with independent variables, heteroscedasticity, autocorrelation, practical application

* Gujarati & Porter- Ch3 (Pg78-79) for Jarque Bera Test for Normality of residuals

* Studenmund Chapter 8, 9 (pg 273-289, only Durbin-Watson test to be done),10 (pg 306-321, only White's Test to be done)

Essential Readings

A.H. Studenmund, *Using Econometrics: A Practical Guide*, 7th Edition , Pearson, 2017

D. N. Gujarati and D.C. Porter, *Essentials of Econometrics*, 4th Edition, McGraw Hill International Edition, 2010.

25/01/24

Deepika Aggarwal	Satyawati College (
Dr Ajay Singh	Motilal Nehru Co
Deepanshi Rajput	JDMC
Dr Arun Kumar	DCAE
Preeti Mann	KNE
Soma Goel	Ranjias
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25/01/24

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5. Gita Gidani SPM college gitag
6. Sujayata Choudhry IP college for women
7. Dr. Lovleen Gupta Bharati College
8. DR. HENA OAK MIRANDA HOUSE
9. CHANDAN SINGH Hindu College
10. Abhishek Malhotra Sri Venkateswara College
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