

**School of Liberal Studies
Ambedkar University Delhi
Course outline**

**Time slot: Monday &
Saturday, 1:45-3:45**

Course Code: SLS2EC224

Title: Cross Section and Panel Data Econometrics -I

Type of Course: Discipline (Economics)

Cohort for which it is compulsory: None

Cohort for which it is elective: MA Economics & All other Majors

No of Credits: 4

Semester and Year Offered: 4th Semester (Winter Semester 2018)

Course Coordinator and Team: Krishna Ram

Email of course coordinator: krishna@aud.ac.in

Prerequisites: Statistics and Data Exploration (SLS2EC104)

Aim: This course deals with the foundational concept of most common methods in econometric theory. The course uses both theory and empirical techniques to teach various econometric methods. The emphasis would be on imparting skills that enable students to carry out independent empirical work.

The course includes various study papers which specifically deal with econometrics issues at hand. The objectives are to understand the econometric problems and methods used to solved them.

Brief description of modules/ Main modules:

1. Matrix approach to linear regression model, Review of Classical Linear Regression Model (CLRM), CLRM assumptions and diagnostic tests.
2. Model specification and diagnostic testing: Model selection criteria, Specification errors, Error of measurement.
3. *Endogeneity and instrumental variables*: IV and 2SLS estimator; Comparing 2SLS with OLS; Asymptotic properties
4. *Binary dependant variables*. Logit and Probit models: Maximum likelihood estimation and inference.
5. *Basic linear panel data methods*. Pooled OLS, fixed and random effects estimation; Difference in Difference

Assessment Details with weights:

One Class Test	30% (End February)
Research proposal and Term Paper	40 % (March- April)
End semester exam	30% (As per AUD academic Calendar)

Reading List:

Books:

Angrist, J.D and Pischke, J.-S. (2008), *Mostly Harmless Econometrics: An Empiricist's Companion*, Princeton University Press.

Bhaumik, Shankar Kumar (2015), *Principles of Econometrics: A modern Approach using Eviews*, Oxford University Press, New Delhi.

Cameron, A.C. and Trivedi, P.K. (2005), *Micro econometrics: Methods and Applications*, Cambridge University Press,

Cameron, A.C. and Trivedi, P.K (2010), *Microeconometrics using Stata*, 2nd ed., Stata Press,

Greene, W.H. (2010), *Econometric Analysis* (7th edition), Pearson, 2012

Gujarati, D.N (2004), *Basic Econometrics*, 4th ed. New York: Tata McGraw Hill.

Gujarati, D.N (2015), *Econometrics by Example*, 2nd ed. Palgrave, London

Hall, Stephen G. & Dimitrios Asteriou (2011), *Applied Econometrics*, Second edition, Palgrave Macmillan , New York.

Wooldridge, J. (2009), *Introductory Econometric: A Modern Approach*, 4th ed, Cengage Learning, Delhi.

Wooldridge, J. (2010), *Econometric Analysis of Cross Section and Panel Data*, 2nd ed., MIT Press.

Articles:

Krueger, A. (1993), How Computers Have Changed the Wage Structure: Evidence from Micro Data, *Quarterly Journal of Economics*, 108, no. 1, 33-60.

Mauldin, P. W. and Berelson, B(1978), Condition of fertility decline in developing countries, 1965-75, *Studies in Family Planning*, 9,89-147.

Levitt, Steven D. (1997), Using electoral cycles in police hiring to estimate the effect of police on crime, *The American Economic Review*, 270-290

Acemoglu & Johnson (2007), Disease and Development: The Effect of Life

Expectancy on Economic Growth, *Journal of Political Economy*, 115(6):925-985.
Chou and Staiger, (2002), Health Insurance and Female Labour Supply in Taiwan, *Journal of Health Economics*.

Zimmermann, Laura (2012), Reconsidering gender bias in intra household allocation in India, *Journal of Development Studies* 48, no. 1, 151-163.

J. J. Donahue III and Steven D. Levitt,(2001), The Impact of Legalised Abortion on Crime, *Quarterly Journal of Economics*, pp 389-420

Duflo, E. (2001), Schooling and Labor Market Consequences of School Construction in Indonesia: Evidence from an Unusual Policy Experiment, *American Economic Review* 91, no. 4, 795-813.

Gertler, Paul, and Simon Boyce. (2001), An Experiment in Incentive-Based Welfare: The Impact of PROGESA on Health in Mexico, *Working Paper*.

Ram, Krishna (2017), Explaining Calorie consumption Puzzle in India: An Empirical Study based on National and International Data-sets since 1990s, *Social Scientist*, Vol.45, No. 532-533, pg. 35-53

Some additions in list of articles mentioned above may be made later.