

Programme: M. A. Economics

Course Code: ECO 226

Title of the Course: Advanced Econometrics

Number of Credits: 4

Total Contact Hours:48

Effective from AY: 2018-19

<u>Prerequisites for the course:</u>	Introduction to Econometrics-1	
<u>Objective:</u>	The objective of the course is to familiarize the students with advanced econometric analysis using time series and panel data.	Contact Hours
<u>Content:</u>	1. Auto Regressive and Distributed Lag Models Estimation of distributed lag models - Adaptive Expectations models - Stock adjustment models - ARDL Models- Method of instrumental variables	10
	2. Simultaneous Equation Models Nature of Simultaneous Equation Models. Problems of Bias, Identification and Simultaneity -The method of indirect Least Squares - Method of two-stage least squares	12
	3. Time Series Analysis Spurious Regression, Random Walk Model, Stationarity, Unit Root, Co-integration, ARIMA, Introduction Causality test. Introduction to VAR Models.	8
	4. Panel Data Analysis Cross Section and Time Series data analysis- Fixed Effects and Random Effects Models. Applications of Panel Data	10
	5. Qualitative Dependent variable Regression LPM, Logit, Probit and Tobit models.	8
<u>Pedagogy:</u>	lectures/ case analysis/assignments/class room interaction/lab practical's	
<u>References/Readings</u>	References • Baltagi (2005), <u>Econometric Applications of Panel Data</u>, John Wiley and Sons, England • Davidson, J. (2000) <u>Econometric Theory</u>, Blackwell, USA • Gourieroux, C(2000) <u>Econometrics of Qualitative Dependent Variables</u>, Cambridge University Press, Cambridge. • Greene, W. (2018) <u>Econometric Analysis</u>, Pearson, New York. • Gujarati, D (2004), <u>Basic Econometrics</u>, MacgrawHill, New Delhi • Hsiao Chang (2003), <u>Analysis of Panel Data</u>,	

	Cambridge University Press • Maddala, G.S. & I.M. Kim (1998) <u>Unit Roots, Co-integration & Structural Change</u>, Cambridge University Press, Cambridge • Mukherjee, C., H. White & M. Wuyts (1998) <u>Econometrics & Data Analysis for Developing Countries</u>, Routledge, London • Pattreson, Kerry (2000) <u>An Introduction to Applied Econometric: Time Series Approach</u>, Palgrave Macmillan, New York • Pattreson, Kerry (2010) A Primer for Unit root testing, Palgrave Macmillan, USA • Wooldridge, Jeffrey M (2002), <u>Econometric Analysis of cross section and Panel Data</u>, MIT Press, USA	
<u>Learning Outcomes</u>	The students will be able to build macroeconometric models using time series data and panel data and estimate the same using econometric software.	

*01 level one courses and 02 level two courses