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

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

	Cambridge University Press • Maddala, G.S. & I.M. Kim (1998) Unit Roots, Co-integration & Structural Change, Cambridge University Press, Cambridge • Mukherjee, C., H. White & M. Wuyts (1998) Econometrics & Data Analysis for Developing Countries, Routledge, London • Pattreson, Kerry (2000) An Introduction to Applied Econometric: Time Series Approach, Palgrave Macmillan, New York • Pattreson, Kerry (2010) A Primer for Unit root testing, Palgrave Macmillan, USA • Wooldridge, Jeffrey M (2002), Econometric Analysis of cross section and Panel Data, MIT Press, USA	
Learning Outcomes	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