

Semester	III
Paper Number	<b>MECO4313</b>
Paper Title	<b>Econometric Methods –I (Elective Paper 1)</b>
No. of Credits	6
Theory/Composite	Composite
No. of periods assigned	4 Theory 2 Practical
Course description/objective	The objective is to 1. Focus on probability and probability distributions. 2. Use probability distributions in studying measures of inequality. 3. To develop tools for analyzing time series data in economics. 4. Introduce students to co-integration analysis. 5. Introduce students to binary choice models. 6. Use computers to analyze time series and cross sectional data.
Syllabus	<b>Module 1 (20 marks)</b> Probability & Distributions - Pareto Distribution, Log normal distribution, Bivariate Distribution – Multivariate – Normal Distribution, Factor Analysis <b>Module 2: Time Series Analysis (20 marks)</b> Autocorrelation - ACF and PACF - Some Useful Processes (White Noise, Random Walks, MA Processes, AR Processes, ARMA Processes and ARIMA Processes) – Analysis of Time Series and Box-Jenkins Method Unit root and structural break; Vector Auto Regression Model - (Impulse Response Function, variance decomposition; vector error Corrections; Cointegration <b>Module3: Cross Section Analysis (10 marks)</b> Limited Dependent Variable Model- Binary Choice Models - Linear Probability Model, Probit and Logit Models.  <b>Practical (30 marks)</b>
Readings	1. Goon, Gupta, Dasgupta (1973) : An Outline of Statistical Theory Vol 1, World Press Private Limited. 2. Feller. W (1957): An Introduction to Probability Theory and its Applications, John Wiley & Sons, Inc 3 <sup>rd</sup> Edition. 3. N. L. Johnson and S Kotz (1970) : Distribution in Statistics , Vol I, II,III& IV, John Wiley & Sons, 2 <sup>nd</sup> Edition. 4. Anderson (2003):An Introduction to Multivariate Statistical Analysis, Wiley & Sons, 3 <sup>rd</sup> Edition. 5. C.R. Rao (1984): Linear Statistical Inference and its Application, Wiley Eastern Limited. 6. Poverty and Inequality- ed by S.M. Ravi Kanbur, Stanford University Papers. 7. Maddala, G.S : Introduction to Econometrics, 3 <sup>rd</sup> Edition, John Wiley and sons. 8. Johnston and Dinardo: Econometric Methods,4 <sup>th</sup> Edition, The McGraw Hill Companies Inc. 9. James H Stock and Mark W. Watson: Introduction to Econometrics, Pearson Education. 10. Maddala, G.S (1986) : Limited Dependent and Qualitative Variables in Econometrics, Cambridge University Press

Evaluation	Continuous Internal Assessment: 20 marks End-Semester Theory Examination: 80 marks					
Paper Structure for End Semester	Module	No. of Questions to be Answered	No. of Alternatives	Marks		
	Module 1	2	3	10 x 2 = 20		
	Module 2	2	3	10 x 2 = 20		
	Module 3	1	2	10 x 1 = 10		
	Total Marks (Theory)				50	
	Total Marks (Practical)				30	
	Total Marks				80	