

Semester	II
Paper Number	MECO4213
Paper Title	Quantitative Economic Analysis II
No. of Credits	6
Theory/Composite	Composite
No. of periods assigned	4 Theory 2 Practical
Course description/objective	<p>The objectives are to</p> <p>Provide students with a working introduction of statistical methods.</p> <p>Provide students with insight into statistical inference.</p> <p>Provide a fairly self-contained development and explanation of econometric methods.</p> <p>Serve as a foundation for further formal study of econometrics.</p> <p>Make students feel comfortable in working the methods on computers.</p> <p>Develop an understanding of empirical research techniques.</p>
Syllabus	<p>Module 1 (20 marks)</p> <p>Unit 1: Statistical Estimation: Methods Of Point Estimation, The Method Of Moments, The Method Of Maximum Likelihood, Properties Of Estimators (Cramer- Rao Inequality), Interval Estimation.</p> <p>Unit 2: Tests Of Statistical Hypothesis: Statistical And Non- Statistical Hypothesis, Type 1 And Type 2 Errors, The Critical Region, The Power Of A Test, The Best Test (Neyman -Pearson Lemma).</p> <p>Module 2 (30 marks)</p> <p>Unit 3: Two Variable CLRM: Estimation and Properties, Violation of Assumption and Consequences.</p> <p>Unit 4: General Linear Model: Assumptions, Least Square Estimators, Significance Tests And Confidence Intervals, Prediction, Linear Restrictions, Multicollinearity, Specification Error.</p> <p>Unit 5: Generalized Least Squares: Aitken's Generalized Least Square Estimation, Prediction, Heteroskedastic Disturbances, Autocorrelated Disturbances.</p> <p>Practical (30 marks)</p>
Readings	<ul style="list-style-type: none"> • George Casella and Roger L. Berger- Statistical Inference, Cleanage Learning,2002. • A. M. Goon, M.K. Gupta and B. Dasgupta, Fundamentals of Statistics Vol1, World Press Private Limited Kolkata 1979. • Jack Johnston and John Dinardo, <i>Econometric Methods</i>, McGraw Hill Higher Education; 4th edition • Jack Johnston <i>Econometric Methods</i>, McGraw Hill Higher Education; 2nd edition • D. N. Gujarati and D.C.Porter, <i>Essentials of Econometrics</i>,

	McGraw Hill, 4th edition, International Edition, 2009. <ul style="list-style-type: none"> • Maddala, <i>Introduction to Econometrics</i>, Wiley, 2001 • Mood, A.M., F.A. Graybill and D.C. Boes: <i>Introduction to The Theory of Statistics</i>, McGraw Hill, 1974. • Greene(2018): <i>Econometric Analysis</i>, Pearson • Kmenta (1997): <i>Elements of Econometrics</i>, The University of Michigan Press 			
Evaluation	Continuous Internal Assessment: 20 marks (Theory + Practical) End-Semester Theory Examination: 50 marks End-Semester Practical: 30 marks			
Paper Structure for End Sem Theory	Module	No. of Questions to be Answered	No. of Alternatives	Marks
	Module 1	2	3	5 x 2 = 10
		1	2	10 x 1 = 10
	Module 2	2	3	5 x 2 = 10
		2	3	10 x 2 = 20
	Total Marks (Theory)			50
	Practical			30