

**Dr. BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY, AURANGABAD**  
**DEPARTMENT OF ECONOMICS**  
**M.A. (Economics) SYLLABUS**

<b>Course Code No.:</b> ECO-311	<b>No. of Credits:</b> 04	<b>Semester:</b> III
<b>Course Title:</b>	<b>ECONOMETRICS - I</b>	
<b>Course Objectives:</b>		
The objective of this course is to operationalize empirically economic theory and test economic theory. Its objective is also to predict future movements in the economic variable of interest on the basis of econometric model.		
<b>Unit</b>	<b>Course Content</b>	<b>Periods</b>
I	Nature, meaning, definition and scope of econometrics, regression model, reasons for inclusion of error term, principle of least squares, econometric methodology.	14
II	The Classical Two-variable Linear Regression Model: Estimation and Inference, Ordinary least squares (OLS) estimation, the classical assumptions, Gauss - Markov theorem and properties of the OLS estimators, goodness of fit, coefficient of determination.	12
III	Multiple Regression Analysis: Estimation, ordinary least squares estimation, coefficient of multiple determination, General Linear regression model: Matrix formulation, assumptions, properties and estimation.	12
IV	Testing of Hypothesis: Confidence interval approach, test of significance approach, F – test.	10
V	Problems in Regression Analysis: Sources, consequences, tests and remedial measures for auto correlation, multicollinearity, hetero – scedasticity, specification and measurement errors.	12
<b>Course Outcome:-</b>		
Student will able to operationalize empirically economic theory and test it. Student can make an econometric model in the process of economic development. They will also able to predict future movement in the economic variable of interest on the basis of economic model.		

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