

Programme: M. A. Economics

Course Code: ECO 126

Title of the Course: Introduction to Econometrics

Number of Credits: 4

Total Contact Hours:48

Effective from AY: 2018-19

<u>Prerequisites for the course:</u>	Students must have basic knowledge of Statistical and Mathematical methods	
<u>Objective:</u>	To provide students exposure to econometric theory, model building and data analysis	
<u>Content:</u>	<p>.</p> <p>1. Two-Variable Regression Analysis: Introduction to Econometric Software: Statistical/ Econometric Software for data analysis. Sample and Population Regression Function. Linearity in variables and coefficients. Ordinary Least Squares (OLS) - Gaussian Classical model. Assumptions and Properties of OLS Estimates; The Co-efficient of determination - R^2, Testing of Hypothesis</p> <p>2. Multiple regression analysis: Problems of Estimation - The three - variable model Interpretation - Partial Regression Coefficients - Multiple co-efficient of determination R^2 (R bar square) Functional forms of regression models; Omitted variables, Specification tests, Ramsey RESET test, Wald, LM test</p> <p>3. Autocorrelation: OLS Estimation in the presence of Autocorrelation; Consequences - Detection - Remedies.</p> <p>4. Heteroscedasticity: OLS Estimation in the presence of Heteroscedasticity – Tests of Heteroscedasticity- Remedies.- Methods of Generalised Least Squares (GLS);</p> <p>5. Multi-collinearity: Estimation in the presence of perfect and imperfect multi-collinearity - practical consequences of multi-collinearity - detection - remedies.</p> <p>4. Regression on Dummy Independent Variables The nature of dummy variables - Regression using quantitative variable and qualitative variable-Application of Dummy Variables' approach</p>	<p>10</p> <p>10</p> <p>8</p> <p>4</p> <p>10</p> <p>6</p>
<u>Pedagogy:</u>	lectures/ case analysis/assignments/class room interaction/lab	

<p><u>References/Readings</u></p>	<p><u>References</u></p> <ul style="list-style-type: none"> • Asteriou Dimitrious,(2006), <u>Applied Econometrics</u>, Palgrave Macmillan, New York • Cameroon Samuel (2005), <u>Econometrics</u>, McGraw Hill, New York. • Davidson, J. (2000) <u>Econometric Theory</u>, Blackwell, USA • Goldberger, A.S. (2000) <u>Introductory Econometrics</u>, Harvard University Press, Cambridge. • Greene, W. (2004) <u>Econometric Analysis</u>, Prentice Hall, New York. • Gujarati, D. (2004) <u>Basic Econometrics</u>, McGraw Hill, New Delhi. • Hayashi, F (2000), <u>Econometrics</u>, Princeton University Press, Princeton. • Pattreson, Kerry (2000) <u>An Introduction to Applied Econometric: Time Series Approach</u>, Palgrave Macmillan, New York • Ramanathan Ramu (2002), <u>Introductory Econometrics with applications</u>, Thomson South Western, Singapore • Wooldridge (2006), <u>Introductory Econometrics</u>, Thomson-South Western, Singapore. 	
<p><u>Learning Outcomes</u></p>	<p>The students will be in a position to develop, estimate and interpret econometric models and to draw the policy implications to help decision makers.</p>	