BBA I/II Year	BBA-G104/204/304/404		Semester-I/II/III/IV		
	Econometrics				
Time Allotted for End Semester Examination	Marks Allotted for Internal Assessment	Marks Allotted for End Semester Examination (ESE)	Maximum Marks (MM)	Total Credits	Maximum Hours
3 Hrs.	**30 (20+10)**	**70**	**100**	**06**	**60**

OBJECTIVE: This course will enable the students to analyse quantitatively the economic information for its real life application.

- Introduction to Econometrics; Basics of Probability; Classical Two Variable Linear Regression Model: Types of Data: Time Series, Cross Section and Panel Data. Concept of Population Regression Function (PRF) and Sample Regression Function (SRF).Estimation of the SRF using Ordinary Least Square (OLS). Analysis of variance and R-squared. Understanding the residuals/error term. Assumptions of the model. Expectation and standard errors of the regression coefficients and the error term. Gauss Markov Theorem. Confidence intervals and tests on population regression coefficients, variance of population disturbance term, and forecasts. Testing the significance of the model as a whole. Testing the normality assumption. **15 Hours)**
- Multiple Regression Model: The three variable case. Derivation of the coefficients. Correlation. Additional assumptions. Adjusted R square. Confidence intervals and testing of the regression coefficients. F and t tests for structural stability, contribution and justification of an explanatory variable. **(15 Hours)**
- Other Functional Forms: Regressions in deviation form and through the origin. The log-log, log-lin, lin-log, reciprocal, log-reciprocal models with application. Dummy variables & Introduction to panel data: Intercept dummy variables, slope dummy variables, Interactive dummy variables. Dummies for testing the presence of seasonal trends. Use of dummies in fixed and random effects. **(15 Hours)**
- Relaxing the Assumptions of the Classical Linear Model: Multi-collinearity: The problem. Detection. Solution. Heteroscedasticity: The problem. Detection. Solution. GLS. Autocorrelation: Problem. Tests for detection. Solutions. Specification Errors: Omission of a variable, Inclusion of irrelevant variable, tests for detecting errors, errors in explanatory and dependent variable. **(15 Hours)**

SUGGESTED READINGS

1. Christopher, D. (2007).*Introductory Econometrics* (3rd Ed.).Oxford University Press.
2. Gujarati, D. & Sangeetha (1995). *Basic Econometrics* (4th Ed.).McGraw Hill.
3. Johnston, J. & DiNardo, J. *Econometric Methods.*
4. Pindyck, R.S. & Daniel L. R. (1997).*Econometric Models and Economic Forecasts*.(3rd Ed.).Singapore: McGraw Hill.
5. Ramanathan, R. (2002). *Introductory Econometrics with Applications* (5th Ed.).Thomson South Western.

Note: The use of Eviews (software) is encouraged for the making projects based upon sections from this paper**.**