Module Code:	STAT-409 STAT-410
Module Title:	• Applied Econometrics (Theory) – 3 Credit Hours • Practical – 1 Credit Hour
Name of Scheme:	BS Statistics

Course Outline

1. Non-spherical disturbances, Consequences of using OLS estimators, ML method assumption and estimation, Generalized least squares; assumption, estimation, properties of GLS estimators. Aitken theorem, Stochastic regressors.
2. Multicollinearity: types, reasons, consequences, remedial measures, Farrar and Glauler test.
3. Heteroskedasticity: Reasons, tests, remedial measures.
4. Autocorrelation: Reasons, tests, remedial measures, consequences.
5. Specification Errors: Over and under specified models and their consequences. Error in variables.
6. Other variables: Instrumental variables, Lagged variables, Dummy variables.
7. Systems of simultaneous linear equations: Reduced form equations, Simultaneous equations Bias. Identification (order and rank conditions), Methods of estimation for identified equations.
8. Income and Wealth distribution: Techniques for income distribution analysis (Lovernz curve, Gini coefficients, Pareto curve).

Books Recommended

1 Gujrati, D. “Basic Econometrics”, McGraw Hill Book Company, Third Edition, 1995.
2. Johnston, J. “Econometric Methods”, McGraw-Hill Book Company, Third Edition, 1985.
3. Koutsoyiannis, A. “Theory of Econometrics”, Macmillan Press Ltd., Hong Kong, 1979.
4. Maddala, G.S. “Introduction to Econometrics”, John Wiley, India, Third Edition, 2005.
5. Ramanathan, R. “Introductory Econometrics with Applications”, South-Western Thomson Learning, USA, Fifth Edition, 2002.

Reference Books

1. Dutta, M. “Econometric Methods, “South-Western Publishing Company, England, 1975.
2. Goldberger, A.S. “Econometric Theory”, John Wiley and Sons, New York, 1964.
3. Wonnacott, T.H. and Wonnacott, R.J. “Econometrics”, John Wiley and Sons, New York, 1979.
4. Draper, N.R. and Smith, I.I. “Applied Regression Analysis”, John Wiley & Sons, New York, 1998.