Course Title: Econometrics I
Course Code: 505

1. **Introduction:** What is a model, features of model, Characteristics of a good model, types of equations, dependent variable, exogeneous variable, predetermined variables, econometrics and econometrics models, steps in econometric model, specification of model
(8 hours)

2. **Single Equation estimation:** Simple econometric model, reasons for introducing disturbance term, basic assumption, odinary least squares estimators, variance of estimators, OLS estimators are BLUE, R2, statistical inference in OLS, Analysis of variance **(20 hours)**

3. **Multivariate Linear regression model:** OLS estimators, Coefficient of multiple regression, Interpretation of regression coefficients, Partial correlation coefficient, Analysis of variance, Beta coefficients, The Guass Markow Theorem, Estimation of , Coeffcient of determination, Regression with only explanatory variables, Adusted R2
(15 hours)

4. **Specification errors:** Irrevelant variables, Left out variables, Superflous variables, Specification error, Bias, Dominant variable. **(7 hours)**

5. **Binary or Dummy variables:** Single qualitative variable, Qualitative and Quantitative variables explanatory variables, Test for linearity, Binary dependent variable, hypothesis of Asymmetric response.
(10 hours)

Recommended books:

Gujarathi Damodar, Basic Econometrics, Mcgraw Hill, New Dehli
Krishna K.L Econometrics application in India, Oxford University Press, New Dehli
B.C. Mehta & Kranti Kapoor, Fundamentals of Econometrics, Himalaya Publishing house
Theil.H, Introduction to Econometrics, Prentice Hall of India, New Dehli
Dongherty.C, Introduction to Econometrics, Oxford University Press, New Dehli