Name of the Programme: **M. A. Economics**

Course Code: ECO-503 **Title of the Course: Statistics For Economic Analysis**

Number of Credits: 4

Effective from AY: 2022-23

Prerequisites for the course:	Graduate in any discipline	
Objective:	To learn the statistical techniques and concepts that aid economic analysis and prepare the base for undertsiang econometric applications.	Contact Hours
Content:	**Module 1:** **Probability** Sampling methods, Sample Space, Random Variable, Addition and multiplication theorem-Conditional Probability, Bayes Theorem, Distribution Function, Mathematical Expectation, Exploratory Data analysis: Measures of central tendency and variance. Skewness and Kurtosis. **Module 2:** **Probability Distributions** : Discrete, Continuous and Sampling Distributions: Binomial, Poisson, Normal, Standard Normal, Student-t, Chi-Square, F distribution. **Module 3:** **Testing of Hypotheses: Concepts & Applications** Testing of Hypothesis; Null and Alternative Hypothesis, Type I & II errors. Levels of Significance. Testing mean, proportion - single and two populations. Testing t, z, F, chi-square test. **Module 4:** **Correlation & Regression**: Covariance, Pearson's Correlation, Rank Correlation. Introduction to Two Variable Regression.	**15** **15** **15** **15**
Pedagogy:	• Chalk and talk aided by ICT enabled lectures • PC lab exercises • Assignments and presentations • Group activity • MOOC (or similar) Component	

References Readings	**Core Reading** C1. Mark L. Berenson, David M. Levine, Kathryn A. Szabat (2015), Basic Business Statistics, Pearson publication C2. David M. Levine, David F. Stephan, Kathryn A. Szabat, (2017) Statistics For Managers Using Ms Excel, Pearson **Additional References** A1. David Spiegelhalter (2020) The Art of Statistics: Learning from Data, Pelican Books, UK A2. David Freedman, Robert Pisani, Roger Purves (2007) Statistics, W.W. Norton, New York	
Learning Outcomes	Solve problems relating to discrete and continuous probability distributions.	

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