

Course Code	Course Name
STS-G-CC/GE-1	Descriptive Statistics
STS-G-CC/GE-2	Elementary Probability Theory
STS-G-CC/GE-3	Introduction to Statistical Inference
STS-G-CC/GE-4	Applications of Statistics
STS-G-DSE-A-5-1	Operations Research
STS-G-DSE-B-6-2	Survival Analysis
STS-G-SEC-A-3-1	Statistical Data Analysis Using R
STS-G-SEC-B-4-2	Data Base Management Systems
STS-G-SEC-A-5-3	Research Methodology
STS-G-SEC-B-6-4	Monte Carlo Method

Course Outcome

1.knowledge of Statistics and its scope and importance in various areas such as Medical, Engineering, Agricultural and Social Sciences etc.2.Acquaintance with various methods of collecting data and get familiar with some elementary methods of data viz. Measures of central tendency, dispersion, skewness and kurtosis and to interpret them.

1.Understanding the basic concepts of probability and to find probabilities of various events.2.Knowledge on characteristics of random variables such as expectation, variance and also to compute various generating functions.

1.knowledge about important inferential aspects such as point estimation, test of hypotheses and associated concepts. 2.knowledge about inferences from Binomial, Poisson and Normal distributions by illustrations.

1.Construction and implication of life tables. 2.knowledge about time series data, its applications to various fields and components of time series

1. Understand basics and formulation of linear programming problems and appreciate their limitations; solve linear programming problems by using graphical method. 2.Apply simplex method to solve real life problems.

1.knowledge about describe survival data and format it appropriately for analysis and understanding.2.learn to represent a data graphically, specifically and fit on proportional hazard models,now check the assumptions and compute hazard ratios

1. Understand basics of R environment.2 Perform various operations on data in R.

3. Do descriptive statistical analysis in R

1.Demonstrate the basic elements of a relational database management system. 2.Identify the data models for relevant problems.

1.Discuss different methodologies and techniques used in research work.2.Explain basic computer skills necessary for the conduct of research.

1.Generate of random numbers from (different) probability distributions.2.Use/ apply the acceptance-rejection algorithm. Perform Monte Carlo integration with error evaluation and carry out importance sampling in an integration context