DEPARTMENT OF STATISTICS (GENERAL COURSE), UNDER CBCS.

PO (PROGRAMME OUTCOME)

1. Allows students to develop and deepen statistical knowledge, keeping the course theory and equally application based, adhering to the university's curriculum.

2. Inculcates a deeper intuition of the subject beyond their scope of syllabus so that they can easily apply their knowledge in any other field, as Statistics form a necessary part of almost every subject. Since Statistics is used in vast fields of study, students from various streams involving Economics, Psychology, Geography find it very useful and beneficial.

PSO (PROGRAMME SPECIPIC OUTCOME)

1. To help students to understand correct usage and interpretation of different measures of descriptive Statistics while handling real life data.

2. To learn different approaches to probability theory to fulfil the main objective of Statistics-"Making decision at the face of uncertainty".

3. Understand correct usage and interpretation of different measures of descriptive Statistics while handling univariate and multivariate real-life data and properly apply the correct statistical measures and concepts for diverse real-life data in hand and correctly interpret the results according to the data.

4. To introduce idea of statistical inference and need for few useful distributions in today's world, help students gain basic idea of significance tests and introduce the applications of Analysis of variance and various related concepts.

CO (COURSE OUTCOME)

COURSE	CREDITS	COURSE OBJECTIVES	COURSE OUTCOMES
SEMESTER 1			
CC1(Descriptive Statistics)	6 [4(TH)+2(PR)]	**a)**Introduction to Statistics and its related concepts, Different types of data, Scales of measurement, Presentation of data, Frequency distribution. **b)**Understanding Measures of central	**a)**Knowledge of Statistics and several related concepts **b)**Understanding types of data and how to handle data **c)**Knowledge of tabular and diagrammatic presentation of data

		tendency, Measures of dispersion, Moments, skewness, kurtosis c) Understanding Bivariate data, Correlation, Simple linear regression.	**d)**Understanding the measures of central tendency and dispersion **e)**Knowledge of skewness, kurtosis, moments.
SEMESTER 2			
CC2 (Elementary Probability Theory)	6 [4(TH)+2(PR)]	**a)**Introduction to Probability and different definitions of probability. **b)**Conditional probability **c)**Total probability. **d)**Bayes' theorem and its applications. **e)**Introduction to Random variables (Discrete and Continuous), P.m.f, p.d.f, c.d.f **f)**Illustrations and properties of random variables, Expectation, variance, moments. **g)**Standard probability distributions (discrete and continuous). **h)**Weak law of large numbers. **i)**Lindeberg-Levy Central Limit Theorem(C.L.T)	**a)**Knowledge of probability theory and several related concepts **b)**Understanding the different laws of probability **c)**Knowledge of Bayes' theorem. **d)**Knowledge of discrete and continuous random variable. **e)**P.m.f, p.d.f, c.d.f knowledge. **f)**Understanding properties of random variables and concept of mean and moments. **g)**Understanding the concept of probability distributions and their applications. **h)**Knowledge of WLLN and CLT.
SEMESTER 3			
CC3 (Introduction to Statistical Inference)	6 [4(TH)+2(PR)]	a)Introduction to population, statistics. b) Introduction to statistical inference. c) Introduction to testing of hypothesis. d)Estimation of population	a)Knowledge of population and statistics b)Understanding the idea of estimation and testing of hypothesis.

		mean, confidence interval of normal distribution. e)Introduction to significance test and testing of statistical hypothesis. f)Test of proportions g)Test for parameters of normal distribution h)Sign test. i)Analysis of variance j)Principles of Design of Experiments k)CRD, RBD analysis	c)Knowledge of testing of statistical hypothesis and several related concepts d)Studying several tests of significance. e)Understanding the concept of Design of experiments and its importance. f)To be able to perform analysis of variance, one way and two way.
SEMESTER 4			
CC4 (Applications of Statistics)	6 [4(TH)+2(PR)]	**a)**Introduction to significance test and testing of statistical hypothesis. **b)**Test of proportions **c)**Test for parameters of normal distribution **d)**Sign test. **e)**Index numbers, Construction of index numbers, Uses and limitations of index number, Tests for index numbers **f)**Introduction to economic time series, Additive and multiplicative models, Measurement of trend, Moving average method. **g)**Demographic Methods, Measurement of mortality.	**a)**Knowledge of testing of statistical hypothesis and several related concepts **b)**Understanding the different sampling techniques and estimating the parameters involved. **c)**Understanding the concept of index numbers and their importance. **d)**To be able to construct index number by several methods. **e)**Knowledge of economic time series and several related concepts **f)**Understanding the different methods to measure the trend. **g)**Learning moving average. **h)**Understanding life tables and its uses.

		h)Knowledge of life tables. i)Measurement of fertility and reproduction rates, Measurement of population growth.	i)Understanding the measurement of fertility and reproduction rates, and population growth.