Course Outcome : F. Y. B. Sc. (Statistics)

Course Title:-ST-111 Descriptive Statistics –I .

Course Outcomes:-

CO1: To learn basic concepts, importance and scope of statistics.

CO2: To understand different types of characteristics, types of data collection and methods of sampling.

CO3: To learn how to present the data sets .

CO4: To learn different types measures of central tendency and dispersion .

CO5: To understand the relationship between raw moments and central moments .

CO6: To learn the concepts of skewness , kurtosis and attributes .

Course Title: ST-112 Discrete probability and probability distributions –I .

Course Outcomes:-

CO1: Gain Knowledge of fundamental concepts of sample space and related events.

CO2: To understand the basic concept of probability and different approaches.

CO3: To learn the concept of conditional probability and independence and to learn how to solve numerical problems in conditional probability.

CO4: To learn univariate probability distributions and their properties .

CO5: To learn the concept of mathematical expectation , variance , moments , M.G.F. , C.G.F. etc of univariate probability distributions .

CO6: To learn different types of standard discrete probability distributions .

Course Title: - ST-113 Practical Course based on ST-111 and ST-112

Course Outcome:-

CO1: To learn diagrammatic and graphical representation of statistical data .

CO2: To learn how to used a random number table for different types of sampling methods .

CO3: To learn how to used Excel software.

CO4: To compute of summary statistics by using Excel software.

CO5: To compute measures of central tendency and dispersion , skewness and kurtosis .

CO6: Doing project related to the concepts which are to learn in above course .

Course Title:-ST- 121 Descriptive Statistics –II .

Course Outcomes:-

CO1: To understand the concept of correlation and their properties.

CO2: To learn the concept of linear regression model.

CO3: To understand the concept of residuals and to solve their problems .

CO4: To learn the non – linear regression models .

CO5: To fit a second degree curve .

CO6 : To fit a exponential curve of the type $y=ab^x$

Course Title: ST-122 Discrete probability and probability distributions – II .

Course Outcome :-

CO1: To learn standard discrete probability distribution of Poisson distributions and their properties.

CO2: To understand the standard discrete probability distribution of Geometric distributions and their properties.

CO3: To learn interrelations among the different probability distribution.

CO4: Understand the need of bivariate random variables.

CO5: Learn how to compute expectation of a bivariate random variables and a function of bivariate random variables .

CO6: To learn the properties of bivariate random variables .

Course Title: - ST-123 Practical Course based on ST-121 and ST-122

Course Outcome:-

CO1: To learn how to fit a regression line.

CO2: To fit a different types of curve like second degree and exponential.

CO3: To learn fitting of different distributions and finding its expected frequency.

CO4: To learn the applications of different types of distributions.

CO5: To understand the model sampling method and index number.

CO6: To learn a excel software for fitting of a curve .

Course Outcome : S. Y. B.Sc. (Statistics)

Course Title: - ST-231 Discrete Probability distributions , time series .

Course Outcome:-

CO1: To learn a negative binomial distribution and their properties.

CO2: To learn multinomial probability distributions and their properties.

CO3: To study relationships between different distributions.

CO4: To study the marginal and conditional distributions for multinomial distribution and understand that they belong to the same family.

CO5: To understand the concept of truncated distribution of Binomial and Poisson distribution.

CO6: To make students familiar to real life situations of time series data .

Course Title: - ST-232 Continuous Probability Distributions.

Course Outcome:-

CO1: To learn the concept of continuous univariate probability distributions.

CO2: To understand the concept of continuous bivariate probability distributions.

CO3: To make students familiar to uniform distributions and its applications.

CO4: To learn a normal distribution and their properties.

CO5: To understand a exponential distribution.

CO6: To study relationships between different distributions.

Course Title: - ST-233 Practical Course based on ST-231 and ST-232

Course Outcome :-

CO1: To fit a normal and negative binomial distributions and computing its expected frequency.

CO2: To find real life applications of normal and negative binomial distribution.

CO3: To learn a model sampling from exponential and normal distribution by using different methods.

CO4: To estimate a seasonal indicates by using different methods.

CO5: To find a probabilities of different distributions by using excel software.

CO6: To fit a curve and distributions by using excel software.

Course Title: - ST-241 Test of Significance and statistical methods .

Course Outcome:-

CO1: To carry out the tests for means, proportions.

CO2: To construct a confidence interval.

CO3: To learn about multiple linear regressions.

CO4: To understand the concept of multiple and partial correlation.

CO5: To understand the different ways of summarising the vital statistics.

CO6: To make comparison of vital statistics and interpret.

Course Title: - ST-242 Sampling Distributions and Exact Tests.

Course Outcome :-

CO1: To study different types of continuous probability distributions.

CO2: To study real life applications of different continuous probability distributions.

CO3: To understand the properties of continuous probability distributions.

CO4: To derive the relationship between the continuous distributions.

CO5: To make students familiar with the statistical tests of hypothesis, widely used in practice along with the assumptions.

CO6: To construct a confidence interval for the unknown population parameter with the help of tests of significance.

Course Title: - ST-243 Practical Course based on ST-241 and ST-242

Course Outcome :-

CO1: To compute GRR and NRR.

CO2: To test of proportions, means and construction of confidence interval.

CO3: Tests based on chi – square and F – distributions.

CO4: To learn basic commands of R – software.

CO5: To find summary statistics by using R – software.

CO6: To tests and find probabilities by using R – Software.