K.T.S.P Mandal's,

Hutatma Rajguru Mahavidyalaya,

Rajgurunagar Tal-Khed, Dist-Pune.

Department of Statistics

Course Outcomes

Class	Semester	Paper	Subject	Course Outcome
F.Y.B.Sc	I	ST-111 Descriptive Statistics-I	Statistics	• CO1: Acquire basic concepts of Statistics • CO2: Understand various sampling methods • CO3:Compute various measures of central tendency • CO4:Identify the nature of data using skewness and kurtosis measure • CO5: Analyze data pertaining to attributes and interpret the results.
F.Y.B.Sc	I	ST-112 Discrete Probability	Statistics	• CO1: Understand basic concepts of probability • CO2: Understand concept of conditional probability • CO3: Compute probabilities of various events • CO4: Obtain a probability distribution of random variable in the given situations.
F.Y.B.Sc	I	ST-113 Statistics Practical Paper-I	Statistics	• CO1: Do graphical representation and interpretation of data sets • CO2: Do graphical representation of data sets using Ms-Excel • CO3: Compute summary statistics • CO4: Computation of summary statistics using Ms-Excel • CO5: Computation of summary statistics using Ms-Excel • CO6: Interpret summary

				statistics of computer output • CO7: Able to identify the nature of distribution based on coefficient of skewness and kurtosis
F.Y.B.Sc	II	ST-121 Descriptive Statistics-II	Statistics	• CO1: Understand the concept of bivariate data • CO2: Compute and interpret the Correlation coefficient • CO3: Understand the concept of Regression analysis • CO4: Able to fit linear and non linear curves for bivariate data • CO5: Compute and interpret the various index numbers
F.Y.B.Sc	II	ST-122 Discrete Probability Distributions	Statistics	• CO1: Understand various discrete probability distributions and its real life situations • CO2: Understand the properties of discrete distributions • CO3: Link interrelations between discrete distributions
F.Y.B.Sc	II	ST-123 Statistics Practical Paper-II	Statistics	• CO1: Able to fit regression lines and estimate the value of dependent variable using Ms-Excel • CO2: Able to fit non linear equations(second degree curve, exponential curve and pareto curve) • CO3: Fit and compute expected frequencies for Binomial and Poisson distribution • CO4: To generate model sample from Binomial and Poisson distribution

				• CO5: To plot Scatter diagram, compute correlation coefficient **using** Ms-excel • CO6: Fit a linear regression and a non-linear regression **using** Ms-excel
S.Y.B.Sc	III	ST-231 **Discrete Probability Distributions and Time Series**	Statistics	• CO1: Identify the real life situations of negative binomial distribution, multinomial distribution and truncated distributions. • CO2: Compute probabilities related between negative binomial distribution, multinomial distribution and truncated distributions. • CO3: Apply different methods of measurement of time series component and smoothen them. • CO4: Forecast time series values using various methods and compare them.
S.Y.B.Sc	III	ST-232 **Continuous Probability Distributions**	Statistics	• CO1: Obtain summary statistics of a continuous random variable. • CO2: Identify nature of continuous distribution using moments, M.G.F and C.G.F etc. • CO3: Compute probabilities of various events related to continuous random variable. • CO4: Know the applications of uniform, normal and exponential distributions.
S.Y.B.Sc	III	ST-233 **Statistics Practical**	Statistics	• CO1: Fit various discrete and continuous probability distributions. • CO2: Identify the appropriate probability model that can be

				used. • CO3: Apply forecasting and data analysis techniques in case of univariate and multivariate data sets. • CO4: Inculcate the knowledge of statistical software packages. • CO5: Compute probabilities of discrete and continuous probability distributions using MS- Excel.
S.Y.B.Sc	IV	ST-241 **Test of significance and Statistical Methods**	Statistics	CO1: Test various hypotheses of significance like means, proportions, independence of attributes, variance etc • CO2 Construct confidence interval for population mean and proportion. • CO3: Obtain best predicting linear equation when a response variable is a function of two explanatory variables. • CO4 Measure the strength of linear relation between response variable & regressors. • CO5: Know applications of statistics in the field of demography. • CO6: Understand the real life applications of queuing model.

S.Y.B.Sc	IV	ST-242 **Sampling Distributions and Exact Tests**	Statistics	• CO1: Identify the situations where gamma ,chi-square ,student's t and snedecor's F distribution is suitable. • CO2: Compute probabilities corresponding to gamma, chi-square, student's t and snedecor's F distribution. • CO3: Identify the nature of gamma ,chi-square ,student's t and snedecor's F distribution is suitable. • CO4: Understand the interrelations between continuous distributions. • CO5: Apply the test based on Chi-square ,t and F distribution in real life situations in the various fields and draw valid conclusions. • CO6 Construct confidence interval for unknown population parameter with the help of test of significance.
S.Y.B.Sc	IV	ST-243 **Statistics Practical**	Statistics	• CO1 Conduct various tests of significance like averages, population proportions, independence of attributes, variance etc. included in theory (using calculators, software). • CO2 :Compute probabilities of discrete and continuous probability distributions using R software. • CO3: use software for finding basic summary statistics.