



Janata Shikshan Sanstha's  
Kisan Veer Mahavidyalaya, Wai  
Department of Statistics



COs for First Year UG  
AY 2024-25  
Revised as per NEP 2.0

Course Title	Course Outcomes
Descriptive Statistics – I	<ol style="list-style-type: none"><li>1) Meaning and scope of Statistics, various statistical organizations.</li><li>2) Population, sample and various methods of sampling.</li><li>3) Various measures of central tendencies and dispersion.</li><li>4) Moments, skewness and kurtosis.</li></ol>
Elementary Probability Theory	<ol style="list-style-type: none"><li>1) Distinguish between random and non-random experiments</li><li>2) Use the basic probability rules, including additive and multiplicative laws</li><li>3) Understand concept of conditional probability and independence of events.</li><li>4) Understand concept of univariate random variable and its probability distributions</li></ol>
Statistical Methods	<ol style="list-style-type: none"><li>1) the time series data and its analysis,</li><li>2) rates of vital events, its computation and interpretation,</li><li>3) how to compute and interpret index numbers,</li><li>4) cost of living index number and its utility</li></ol>
Discrete Probability Distributions	<ol style="list-style-type: none"><li>1) One point, two point and Bernoulli distributions,</li><li>2) Discrete uniform, Binomial and Hypergeometric distributions,</li><li>3) Poisson, Geometric and Negative binomial distributions.</li><li>4) Applications of these distributions in real-life situations.</li></ol>
Business Statistics Paper-I (Open Elective for faculty other than Commerce and Management)	<ol style="list-style-type: none"><li>1) To explain the scope of Statistics in business and apply sampling techniques in real life</li><li>2) To draw diagrams and graphs</li><li>3) To summarise data by means of Measures of Central Tendency</li></ol>

	4) To explain the merits and demerits of various measures of Central Tendency
Business Statistics Paper-II (Open Elective for faculty other than Commerce and Management)	1) To summarise data by means of Measures of Dispersion and explain merits and demerits of Dispersion. 2) To understand and summarise data by means of measures of skewness and kurtosis. 3) To carryout analysis of bivariate data using simple correlation and simple regression 4) Compute simple and weighted index numbers
Basic Statistics Practical-I (Open Elective for faculty other than Science)	1) apply sampling techniques in real life. 2) perform classification and tabulation of primary data. 3) represent the data by means of simple diagrams and graphs. 4) summarize data by computing measures of central tendency
Basic Statistics Practical-II (Open Elective for faculty other than Science)	1) exhibit variation in data by computing measures of dispersion. 2) demonstrate and interpret correlation between two variables by using Scatter Plot. 3) compute correlation coefficient between two variables and interpret the values of correlation coefficient. 4) obtain linear regression of dependent variable on independent variable and hence estimate value of dependent variable for given value of independent variable.



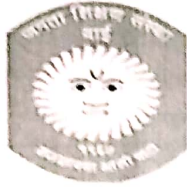
Head

Department of Statistics





Principal



Janata Shikshan Sanstha's  
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Department of Statistics



CO's for Third Year UG  
For AY 2024-25  
Revised as per NEP 1.0

Course Title	Course Outcomes
Probability Distributions	<ol style="list-style-type: none"><li>1) Knowledge of important univariate distributions such as Rayleigh, Weibull, Linear failure rate, Cauchy, Lognormal, Logistic, Pareto, Power Series Distribution.</li><li>2) Knowledge of Multinomial and Bivariate Normal Distribution.</li><li>3) Knowledge of Truncated Distributions.</li><li>4) Information of various measures of these probability distributions.</li><li>5) Acumen to apply standard continuous probability distributions to different situations.</li></ol>
Statistical Inference-I	<ol style="list-style-type: none"><li>1) Knowledge of important inferential aspect of point estimation.</li><li>2) Concept of random sample from a distribution, sampling distribution of a statistic, standard error of important estimates such as mean and proportions.</li><li>3) knowledge of various important properties of estimator.</li><li>4) Knowledge about inference of parameters of standard discrete and continuous distributions.</li><li>5) Concept of Fisher information and CR inequality.</li><li>6) Knowledge of different methods of estimation.</li></ol>
Sampling Theory	<ol style="list-style-type: none"><li>1) Basic knowledge of complete enumeration and sample, sampling frame sampling distribution, sampling and non-sampling errors, principle steps in sample surveys, sample size determination, limitations of sampling etc.</li><li>2) Concept of various sampling methods such as simple random sampling, stratified random sampling, systematic sampling and cluster sampling.</li><li>3) An idea of conducting sample surveys and selecting appropriate sampling techniques.</li><li>4) Knowledge of comparing various sampling techniques.</li><li>5) Knowledge of ratio and regression estimators.</li></ol>


R-Programming and Quality Management	<ol style="list-style-type: none"> <li>1) importance of R- programming</li> <li>2) knowledge of identifiers and operators used in R.</li> <li>3) knowledge of conditional statements and Loops used in R.</li> <li>4) knowledge of quality tools used in Quality management.</li> <li>5) knowledge of process and product control used in Quality management.</li> </ol>
Probability Theory and Applications	<ol style="list-style-type: none"> <li>1) knowledge about order statistics and associated distributions</li> <li>2) concept of convergence and Chebychev's inequality and its uses</li> <li>3) concept of law large numbers and central limit theorem and its uses.</li> <li>4) knowledge of terms involved in reliability theory as well as concepts and measures.</li> </ol>
Statistical Inference-II	<ol style="list-style-type: none"> <li>1) concept of interval estimation.</li> <li>2) knowledge of interval estimation of mean, variance and population proportion.</li> <li>3) knowledge of important aspect of test of hypothesis and associated concept.</li> <li>4) concept about parametric and non-parametric methods.</li> <li>5) Knowledge of some important parametric as well as non-parametric tests.</li> </ol>
Design of Experiments	<ol style="list-style-type: none"> <li>1) Knowledge of basic terms used in design of experiments.</li> <li>2) Concept of one-way and two-way analysis of variance.</li> <li>3) Knowledge of various designs of experiments such as CRD, RBD, LSD and factorial experiments.</li> <li>4) Knowledge of using an appropriate experimental design to analyze the experimental data.</li> </ol>
Operations Research and Decision Theory	<ol style="list-style-type: none"> <li>1) Concept of Linear programming problem.</li> <li>2) Knowledge of solving LPP by graphical and simplex method.</li> <li>3) Knowledge of Transportation, Assignment and Sequencing problems.</li> <li>4) Concept of queuing and decision theory.</li> <li>5) Knowledge of simulation technique and Monte Carlo technique of simulation.</li> </ol>
Statistics In Research Methodology (SEC For all B.Sc. III)	<ol style="list-style-type: none"> <li>1) Prepare a questionnaire to collect the data,</li> <li>2) Perform classification and tabulation of data</li> <li>3) Represent the data using simple diagrams and graphs.</li> <li>4) Apply sampling techniques in real life.</li> </ol>

5) Summarize data by computing measures of central tendency, measures of dispersion and correlation coefficient.

  
Head

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Principal