

STATISTICS (NEP SYLLABUS)	
Programme Outcome (PO)	Programme Specific Outcome (PSOs)
<p>PO1: acquire knowledge of fundamental concepts.</p> <p>PO2: Enabling learning through experimental methods.</p> <p>PO3: Study concern with society and human behaviour.</p> <p>PO4: analyse social problems and find solution to them.</p> <p>PO5: Students gain skills in critical, creative thinking, Problem solving, decision making, analysis and research.</p>	<p>PSO1: Acquire fundamental/systematic or coherent understanding of the academic field of Statistics and its different learning areas and applications.</p> <p>PSO2 : Develop and demonstrate an ability to understand major concepts in various disciplines of Statistics.</p> <p>PSO3: Demonstrate the ability to use skills in Statistics and different practicing areas for formulating and tackling Statistics related problems and identifying and applying appropriate principles and methodologies to solve a wide range of problems associated with Statistics.</p> <p>PSO4: Understand procedural knowledge that creates different types of professionals related to subject area of Statistics, including professionals engaged in government/public service and private sectors.</p> <p>PSO5: Have a knowledge regarding use of data analytics tools like Excel and R-programming.</p> <p>PSO6 : Developed ability to critically assess a standard report having graphics, probability statements.</p> <p>PSO7: Analyse, interpret the data and hence help policy makers to take a proper decision.</p> <p>PSO8: Recognize the importance of statistical modelling and computing, and the role of approximation and mathematical approaches to analyse the real problems using various statistical tools.</p>
COURSE OUTCOME (CO)	
<p>B.Sc I sem</p>	<p>CO1: Acquire knowledge of introductory statistics, its scope and importance in various areas such as Medical, Engineering, Agricultural and Social Sciences etc.</p> <p>CO2 : Get knowledge of various types of data, their organization and evaluation of summary measures such as measures of central tendency and dispersion etc.</p> <p>CO3 : Perceive the knowledge of correlation, regression analysis, regression diagnostics, partial and multiple correlations.</p> <p>CO4 : Learn different of types of data reflecting independence and association between two or more attributes.</p> <p>CO5 : Develop ability to critically assess a standard report having graphics, probability statements.</p>

<p>B.Sc II sem</p>	<p>CO1: Conceptualize the probabilities of events including frequentist and axiomatic approach. Simultaneously, they will learn the notion of conditional probability including the concept of Bayes' Theorem, CO2 : Get knowledge related to concept of discrete and continuous random variables and their probability distributions including expectation and moments, CO3 : Learn knowledge of important discrete and continuous distributions such as Binomial, Poisson, Normal distributions. CO4 : Acquire knowledge on R-programming in the descriptive statistics and probability models.</p>
<p>B.Sc- I sem 1. Statistical Methods (Open Elective)</p>	<p>CO : Acquire knowledge of statistical methods. CO2: Identify types of data and visualization, analysis and interpretation. CO3: Know about elementary probability and probability models. CO4: Employ suitable test procedures for given data set.</p>
<p>2. Business Statistics (Open Elective)</p>	<p>CO1: Frame and formulate management decision problems. CO2: Understand the basic concepts underlying quantitative analysis. CO3: Use sound judgment in the applications of quantitative methods to management decisions.</p>
<p>3. Applied Statistics (Open Elective)</p>	<p>CO1: Understand the Price and Quantity Index numbers and their different measures, understand the applicability of cost of living Index number. CO2: Know the components and Need for Time series, understand the different methods of studying trend and Seasonal Index. CO3: Study the concept of vital statistics, sources of data, different measures of Fertility and Mortality, Understand the Growth rates- GRR and NRR and their interpretations. CO4: Know the concept of Population, Sample, Sampling unit, sampling design, sampling frame, sampling scheme, need for sampling, apply the different sampling methods for designing and selecting a sample from a population, explain sampling and non-sampling errors. CO5: Describe the philosophy of statistical quality control tools as well as their usefulness in industry and hence develop quality control tools in a given situation.</p>
<p>4. Biostatistics (Open Elective)</p>	<p>CO1: After studying the course, the student will be able to apply statistical tools and techniques in data analysis of biological sciences.</p>

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APPLIED STATISTICS (NEP SYLLABUS)	
Programme Outcome (PO)	Programme Specific Outcome (PSOs)
<p>PO1: acquire knowledge of fundamental concepts.</p> <p>PO2: Enabling learning through experimental methods.</p> <p>PO3: Study concern with society and human behaviour.</p> <p>PO4: analyse social problems and find solution to them.</p> <p>PO5: Students gain skills in critical, creative thinking, Problem solving, decision making, analysis and research.</p>	<p>PSO1: Acquiring fundamental knowledge of statistics.</p> <p>PSO2: Develops skill to apply the statistical knowledge to a variety of real life problems.</p> <p>PSO3: To enrich ability to examine the various statistical issues in a more logical and methodological manner.</p> <p>PSO4: Develop ability to critically examine various hypothesis and research queries identify and consult relevant resources to find their rational answers.</p> <p>PSO5: To familiarize to students with computational techniques and software used in statistical area.</p> <p>PSO6: To develop original thinking for formulating new problems and providing their solutions.</p> <p>PSO7: Student will able to analyse, interpret and draw appropriate conclusion from both quantitative and qualitative data.</p> <p>PSO8: familiarize with data collection, compilation. Analysis and interpret and writing of projects.</p> <p>PSO9: To identify ethical issue, avoid unethical behaviour's such as fabrication, falsification or miss presentation and miss interpretation of data.</p>
COURSE OUTCOME (CO)	
<p>B.A I sem</p>	<p>CO1: Organize, manage and present data.</p> <p>CO2: Analyse statistical data graphically using frequency distributions and cumulative frequency distributions.</p> <p>CO3: Analyse statistical data using measures of central tendency, dispersion.</p> <p>CO4: Understand Skewness and Kurtosis and their use in studying various characteristics of data.</p> <p>CO5: Know concept of correlation, various correlation coefficients- Pearson's correlation coefficient, Spearman's rank correlation coefficient.</p> <p>CO6: Carryout spatial analysis.</p> <p>CO7: Understand the Price and Quantity Index numbers and their different measures understand the applicability of cost of living Index number.</p>

	<p>CO8: Know the components and Need for Time series, understand the different methods of studying trend and Seasonal Index.</p>
B.A II Sem	<p>CO1: Solve problems of economics concerns using demand analysis, supply functions, Gini's coefficient and Lorenz Curve.</p> <p>CO2: Understand basic concepts, important theorems on probability and their use in solving problem.</p> <p>CO3: Know random variable, mathematical expectation, and numerical problems on mathematical expectation.</p> <p>CO4: Understand the most common discrete and continuous probability distributions and their real life applications.</p> <p>CO5: Understand the nature of data and to perform appropriate analysis.</p> <p>CO6: Carry out time series analysis and predict the future values of given trend.</p> <p>CO7: Analyse the Seasonal Indies by using different methods.</p>
1. Statistics in Competitive Examinations (Open Elective)	<p>CO1: After the successful completion of the course, the students will be able to develop the data analysis skills required for Competitive Examinations</p>
2. Statistical Methods (Open Elective)	<p>CO1: Acquire the knowledge of statistical methods.</p> <p>CO2: Identify types of data and visualization, analysis and interpretation.</p> <p>CO3: Know about elementary probability and probability models.</p> <p>CO4: Employ suitable test procedures for given data set.</p>
3. Business Statistics (Open Elective)	<p>CO1: Frame and formulate management decision problems.</p> <p>CO2: Understand the basic concepts underlying quantitative analysis.</p> <p>CO3: Use sound judgment in the applications of quantitative methods to management decisions.</p>
4. Quantitative Aptitude (Open Elective)	<p>CO1: After the successful completion of the course, the students will be able to develop the general skills required to Competitive Examinations.</p>

STATISTICS (CBCS)	
Programme Outcome (PO)	Programme Specific Outcome (PSOs)
<p>PO1: Students acquired knowledge on quantitative analysis and to face any competitive examination.</p> <p>PO2: Student ability to know fundamental and basic Knowledge three equal importance subject(PMS) further he may go in higher education or research area or he may joined corporate sector.</p> <p>PO3: Student ability to apply his knowledge on other applied sciences for analysis of data and research.</p>	<p>PSO1: Application of statistics in various walks of life.</p> <p>PSO2: Understanding how to collect, present, analyse and interpret the data of the applied sciences.</p> <p>PSO3: Ability to apply various statistical tools to research problem.</p> <p>PSO4: Application of various distributions to real life situation.</p>
COURSE OUTCOME (CO)	
<p>B.Sc. I sem – Univariate data analysis and probability</p>	<p>CO1: Fundamental knowledge of statistics, data collection, Presentation , analysis and its interpretation.</p> <p>CO2: Presentation of data with diagrams and graphs.</p> <p>CO3: Data analysis by central tendency, dispersion, Skewness and kurtosis.</p> <p>CO4: Concept of Probability and random variables.</p>
<p>B.Sc II sem – Bivariate data analysis and probability distribution</p>	<p>CO1: Fundamentals of distribution functions.</p> <p>CO2: Concept of Co-relation and regression theory.</p> <p>CO3: Standard discrete and continuous distribution models.</p> <p>CO4: Concept of Index number.</p>
<p>B.Sc III sem – Sampling Distribution and Non-Parametric Test</p>	<p>CO1: Concept of sampling distribution and large sample test</p> <p>CO2: Concept of small sample test</p> <p>CO3: Non-Parametric test</p> <p>CO4: Concept of multiple and partial correlation and regression</p>
<p>B.Sc IV sem - Statistical Inference</p>	<p>CO1: Concept of point estimation and Methods of Estimation</p> <p>CO2: Interval estimation theory</p> <p>CO3: Testing of statistical hypothesis and UMP, LRT</p>