

DEPARTMENT OF STATISTICS

PROGRAM OBJECTIVE (Pos):

- PO1: To make the students acquainted with the philosophy behind the statistics, objectives of statistics, various concepts as well as theories (both fundamental/basic & applied) of statistical science.
- PO2: To make the students acquainted with the various concepts as well as theories of mathematics which are essential in learning the theory of statistics as well as in applications of statistics.
- PO3: To make the students acquainted with the various concepts as well as theories of Computer Science which are essential in learning the art of application of statistical theory in data analysis.
- PO4: To enable the students in collection, handling and analysis of real data.
- PO5: To enable the students qualified, efficient and fit for higher learning in Statistics and statistics-related fields.
- PO6: To make the students qualified, efficient and fit for serving the society by doing works in the fields like education, research, economics, business, trade & commerce, medical & health science, agriculture, survey, census and many others .
- PO7: To enable the students to earn quality (efficiency} in composing article/paper/project report, delivering speech/talk, presenting article/paper/project report in meeting/seminar/conference.

PROGRAM SPECIFIC OUTCOME (PSOs):

- PSO1: Demonstrate the various concepts as well as theories of some branches of mathematics namely Classical Algebra, Matrix Algebra, Real Analysis, Numerical Analysis and Linear Programming which are essential in learning the theory of statistics as well as in applications of statistics.
- PSO2: Demonstrate the various concepts as well as theories of the core branches of statistics namely Probability, Descriptive Statistics, Distribution Theory, Sampling Theory, Statistical Inference (Estimation and Testing of Hypothesis as two aspects) and Experimental Design.

- PS03: Demonstrate the various concepts as well as theories of the branches related to the Application of Statistics namely Vital Statistics, Time Series Analysis, Demand Analysis, Index Numbers, Statistical Quality Control and Operations Research.
- PS04: Demonstrate the basic languages of Computer Science and the technique/art of composing/writing programs for various useful statistical computations.
- PS05: Demonstrate proficiency in establishing validity of statistical theories with applications.
- PS06: Investigate and apply statistical techniques in handling with the real problems based on data.
- PS07: Educate students about the various aspects of data with special emphasis on collection, handling and analysis of real data.
- PS08: Educate students about the use of computer programming in learning the art of application of statistical theory in data analysis.

COURSE OUTCOME (Cos):

- C01: Familiarize the students with the basic concepts and theories of Classical Algebra and Matrix Algebra.
- C02: Familiarize the students with real analysis and there uses in solving problems.
- C03: Equipped the students to understand linear programming problem and find optimum solution which are essentially useful in the field of Operations' Research
- C04: Enables the students to learn Numerical Analysis with special emphasis on Numerical Interpolation, Numerical Integration, Numerical Differentiation and Theoretical & Numerical solution of Difference Equation and of Non-linear Equation.
- C05: Equipped the students to understand Probability and Distribution with applications.
- C06: Enables the students to learn Data Collection, Data Handling and Data Processing (specially Analysis).
- C07: Enables the students to learn Statistical Measures of Various characteristics of data.
- C08: Familiarize the students with design of experiment and design of survey.
- C09: Helps the students in understanding of the art of application of statistics in the fields like Demographic Analysis (including Vital Statistics Analysis and Epidemiology), Demand Analysis, Time Series Analysis, Quality Control and Operations Research.
- C010: Enables the students to learn the concepts and theories of Estimation and of Hypothesis Testing which are essentially useful in decision making problems.
- C011: Acquaints the students with the use of computer programming in statistical computation.

C012: Make the students enabled in composing computer programs for various computational purposes.

C013: Acquaints the students with multivariate data in addition to data on single variable and their analysis.

C014: Make the students enabled in conducting field work/survey.

C015: Make the students enabled in identifying & formulate research problem and in conducting minor research study.

Attainment of Pos, PSOs and COs are evaluated by the college through procedures laid down by the affiliating university.

Assessment

- Sessional examination.
- Mid Semester and End Semester Examination.
- Home Assignment.
- Field Work/survey
- Project Work.
- Group Discussion
- Counselling
- Seminars and Presentation