



**Department of Statistics**  
**Pandu College**  
**Course Outcomes (CO) of FYUGP**

**Course Name: Descriptive Statistics and Probability**

**Course Code: STA 101**

Course outcomes:

At the end of the course students will be able

1. To analyze a data set
2. To represent the data in tabular and graphical form.
3. To prepare the frequency distribution.
4. To calculate measures of central tendency, measures of dispersion, measures of skewness and kurtosis of a univariate data.

**Course name: Correlation and regression, Probability Distribution, Statistical Inference I and Finite Difference**

**Course code: STA 201**

Course outcomes:

The students will be able

1. To apply the tools of correlation and model building in data analysis
2. To relate the basic probability distributions with real world

**Course name: Survey Sampling and Designs of Experiments I**

**Course code: STA301**

Course outcomes:

1. Students will be able to know the grass root of a research work by the use of designs of sampling schemes.

**Course name: Probability II and Probability Distributions II**

**Course Code: STA401**

Course Outcomes:

1. Students shall be able to appreciate large sample implications of various statistical measures
2. Students shall learn about a number of statistical distributions.
3. Students will be able to interpret about the existence of moments of any given random variable and to determine them.
4. They will be able to use tools like probability generating function and moment generating function to study distributions.
5. They will learn about several univariate discrete and continuous distributions and their characterizations.

**Course name: Mathematical Models**

**Course Code: STA402**

Course Outcome: at the end of the course students will be able to use the mathematical results of Calculus and Algebra to study different distribution.

**Course Name: Linear Algebra and System of Equations.**

**Course Code: STA403**

Course Outcome: At the end of the course, Students will be able to explain the basics of matrices and solve numerical problems based on basics of matrices in addition to solving systems of linear equations.

**Course name: Practical 4**

**Course Code: STA404**

Course Outcome: At the end of the course, students will be able to apply mathematical techniques to practical situations.

**Course code: STA 501**

**Course Name: Sampling Distributions and Test of Significance**

Course Outcome:

At the end of the course the students will be able to understand the concept of large sample theory and its variability in sample measures and their distributions.

**Course code: STA502**

**Course name: Statistical Inference- 2**

Course Outcome: at the end of this course the students will be able to understand the concept Statistical Inference in detail. They will know the importance of the estimation theory, properties of estimators and how to test different types of statistical hypothesis.

**Course code: STA503**

**Course name: Design of experiments2**

Course Outcome: At the end of this course the students will be able to know the use of statistics in field experiments. They will develop idea that how to use the concepts of ANOVA, CRD, RBD, Factorial experiments in the real world problems.

**Course Code: STA504**

**Course name: Practical 5**

Course outcome: From this course the students will be able to know the procedure to use the field experimentation techniques as well as sampling techniques, what they have learned in theory papers.

**Course Code: STA601**

**Course Name: Applied Statistics**

Course outcome: At the end of the course the students will be able to use statistical concepts on forecasting, quality improvements of products in industries and to deal with economical analysis related to govt and society.

**Course Code: STA602**

**Course name: Bivariate / Multivariate Analysis, Stochastic Process and Computer Programming**

Course Outcome: On completion of the course, students will be able to understand the basics and importance of stochastic process, Markov model, Poisson Process and their practical applications. They will also develop their idea on the analysis of higher dimensional random variables. They will be able to do statistical calculations by the use of C programming.

**Course Code: STA 603**

**Course Name: Operations Research**

Course Outcome: on completion of the course, students will be able to understand the power of team spirit from the history of OR and also they can develop idea on techniques for optimization in field level problems.

**Course Code: STA604**

**Course Name: Practical -6**

Course Outcome: at the end of this course, the students will be able to use the statistical techniques they have learned in theory to solve the problems that arise in practical fields such as in industry, in govt or in society.