# **DEPARTMENT OF STATISTICS**

COURSE OUTCOME Generic Elective for Honours Course	
Sem 1 Descriptive Statistics (STS-A-GE-1-1)	Sem 3 Introduction to Statistical Inference (STS-A-GE-3-3)
Unit 1: Frequency distribution & Presentation of data Unit 2: Measures of Central Tendency & Dispersion Unit 3: Correlation & Regression	Unit 1: Population distribution & Sampling distribution Unit 2: Estimation & Tests of hypotheses Unit 3: Analysis of variance & Designs of experiments
<ul><li>Theory: 4 hrs./week</li><li>Practical: 4 hrs./week</li></ul>	<ul><li>Theory: 4 hrs./week</li><li>Practical: 4 hrs./week</li></ul>

COURSE OUTCOME Generic Elective for Honours Course	
Elementary Probability Theory	Applications of Statistics
(STS-A-GE-2-2)	(STS-A-GE-4-4)
Unit 1: Probability theory	Unit 1: Sample survey
Unit 2: Random variable & Expectation	Unit 2: Index numbers & Time series Unit 3: Vital statistics
Unit 3: Probability distributions	
❖ Theory: 4 hrs./week	Theory: 4 hrs./week
Practical: 4 hrs./week	Practical: 4 hrs./week

## **DEPARTMENT OF STATISTICS**

**Programme Offered:** Generic Elective for Honours Course

**Program Outcome** 

## **Descriptive Statistics (STS-A-GE-1-1)**

The learning objectives include:

- Acquainting the students with various statistical methods.
- To introduce students to different measurement scales, qualitative and quantitative and discrete and continuous data.
- To help students to organize data into frequency distribution graphs, including bar graphs, histograms, polygons, and ogives.
- Students should be able to understand the purpose for measuring central tendency, variation, skewness and kurtosis and should be able to compute them as well.
- Students should be able to understand and compute various statistical measures of correlation, fitting of curve and regression.

## **Elementary Probability Theory (STS-A-GE-2-2)**

A probability distribution is a statistical model that shows the possible outcomes of a particular event or course of action as well as the statistical likelihood of each event. Probability distribution functions are quite important and widely used in actuarial science (insurance), engineering, physics, evolutionary biology, computer science and even social sciences such as psychiatry, economics and even medical trials.

### **Introduction to Statistical Inference (STS-A-GE-3-3)**

Statistical Inference is a crucial part of the process of informing ourselves about the world around us. Statistical inference helps us understand our world and make sound decisions about how to act. The content of this paper is based on basic statistical methodology which is vital for industry, biosciences and others streams.

#### **Applications of Statistics (STS-A-GE-4-4)**

- This course will help students to know the applications of Statistics and learn and apply these techniques in the core course of their study.
- This course will give exposure to four applied fields of statistics viz. Time Series, Index Numbers, Statistical Quality Control and Demographic methods.
- They will be having hands on practice of working on the data and interpreting the results related to above mentioned fields.