LORETO COLLEGE

TIME PLAN AUGUST 2025-DECEMBER 2025

1ST Semester Topic-wise Time Plan

Paper: STAT-H-MC1-1-Th

Descriptive Statistics I and Probability I (Theory)

Name of the teacher: Prapti Giri

Initials: PG

Teaching Objective:

• To introduce the concept of Statistics, scales of measurement, presentation of different type of data.
• To help students learn measures of central tendency, dispersion, moments, skewness and kurtosis.
• To learn different approaches of probability theory to fulfil the main objective of Statistics- "Making decision at the face of uncertainty".

Units	Hours Alloted	Topics (as per curriculum)	Learning outcomes (Output)	Teaching method	Assessment
Unit 1	10	a) Introduction to Statistics and its related concepts. b) Different types of data c) Scales of measurement d) Presentation of data e) Frequency distribution f)Stem and leaf display	a) To know Statistics and several related concepts b) To understand different types of data and how to handle data c) To be able to do tabular and diagrammatic presentation of data	a) Interactive Lecture b)Problem solving c) Group discussion d) Peer teaching e)Real life application	1. Tutorial in the form of MCQ 2. Assignments 3. Seminar presentation 4. Projects
Unit 2	15	a) Measures of central tendency b) Measures of dispersion c) Moments, skewness, kurtosis d) Quantiles and Measures based on them e) Box plot, outliers.	a) To gain knowledge about measures of central tendency and dispersion b) To know about skewness, kurtosis, moments and difference between moment and quantile measures. c) To visualize the data using quantiles, dealing with outliers.	a) Interactive Lecture b) Problem solving c) Group Discussion d) Peer teaching e) Real life application	1. Tutorial in the form of MCQ 2. Assignments 3. Seminar presentation 4. Projects
Unit 3	20	a) Random Experiment, Event and event algebra b) Definitions of probability (Frequentist, Classical, Axiomatic) c) Conditional Probability, Theorems of Compound and Total probability, Bayes' Theorem.	a) To understand different approaches and their merits and demerits for working with probability. b) To be able to use theorems and concepts in diverse situations for decision making.	a) Interactive Lecture b) Problem solving c) Group Discussion d) Peer teaching e) Game Based learning f) Real life application	1. Tutorial in the form of MCQ 2. Assignments 3. Seminar presentation 4. Projects

LORETO COLLEGE

TIME PLAN AUGUST 2025-DECEMBER 2025

1ST Semester Topic-wise Time Plan

Paper: STAT-H-MC1-1-P

Descriptive Statistics I and Probability I (Practical)

Name of the teacher: Prapti Giri

Initials: PG

Teaching Objective:

• To help students learn practical problem solving skill based on datasets arising from various real life scenarios.
• To help students understand correct usage of different measures of descriptive statistics and proper application of them while handling real life data.
• To help students to properly apply the correct measures of probability for diverse real life data and draw correct interpretation from the results.

Units	Hours Alloted	Topics (as per curriculum)	Learning outcomes (Output)	Teaching method	Assessment
Unit 1	NA	a) Practical on diagrammatic representation of data. b) Problems on frequency distribution c) stem and leaf display.	a) To use the theoretical concepts to solve real-life problems. b) To grow skills to analyse data graphically and draw meaningful interpretations and insights.	Demonstration of Problem solving	1. Tutorial (Practical Problem solving) 2. Assignments 3. Seminar presentation 4. Projects
Unit 2	NA	a) Practical on measures of central tendency, dispersion. b) Problem on combined mean and variance, coefficient of variation. c) Problem on moments, skewness, kurtosis. d) Problems related to quantiles and measures based on them and construction of Box Plot.	a) To gain the knowledge to understand the data structure and have an introductory idea of analysis the data. b) To grow skills to analyse data from the numerical results obtained and draw meaningful interpretations and insights.	Demonstration of Problem solving	1. Tutorial (Practical Problem solving) 2. Assignments 3. Seminar presentation 4. Projects
Unit 3	NA	a) Application of problems based on classical definition of Probability b) Application of problems based on Bayes' Theorem	To be able to use theorems and concepts in diverse everyday situations for decision making.	Demonstration of Problem solving	1. Tutorial (Practical Problem solving) 2. Assignments 3. Seminar presentation 4. Projects