

**LORETO COLLEGE**  
**TIME PLAN FOR SESSION 2025**  
**4<sup>TH</sup> Semester Topic-wise Time Plan**  
**Paper: STAT-H-MC2-4-Th (Statistics Minor)**  
**Descriptive Statistics II and Probability II (Theory)**

**Name of the teacher:** Daita Lahiri  
**Initials:** DL

**Teaching Objective:**

- To introduce fundamentals of probability theory and its importance.
- To help students learn basic concepts of random variables and its related properties.
- To introduce the various probability distributions and its applications.

<u><b>Units</b></u>	<u><b>Hours Alloted</b></u>	<u><b>Topics (as per curriculum)</b></u>	<u><b>Learning outcomes (Output)</b></u>	<u><b>Teaching method</b></u>	<u><b>Assessment</b></u>
Unit 3	25 Hours	<b>a)</b> Introduction to random variables. <b>b)</b> CDF, PMF, PDF <b>c)</b> Expectation and variance. <b>d)</b> Discrete distributions: uniform, binomial, poisson. <b>e)</b> Continuous distribution: normal.	<b>a)</b> Knowledge of Random variables. <b>b)</b> Understanding the concept of cdf, pdf and pmf of a probability distribution. <b>c)</b> Knowledge of expectation and variance. <b>d)</b> Study several distributions and their relativity to real life.	<b>a)</b> Interactive-Lecture <b>b)</b> Problem-solving <b>c)</b> Real life application	Problem solving and Assignments

**LORETO COLLEGE**  
**TIME PLAN SESSION 2025**  
**4<sup>TH</sup> Semester Topic-wise Time Plan**  
**Paper: STAT-H-MC2-4-P (Statistics Minor )**  
**Descriptive Statistics II and Probability II (Practical)**

**Name of the teacher:** Daita Lahiri

**Initials:** DL

**Teaching Objective:**

To help students learn practical problem solving skill based on datasets arising from various real life scenarios.

<u><b>Units</b></u>	<u><b>Hours Alloted</b></u>	<u><b>Topics (as per curriculum)</b></u>	<u><b>Learning outcomes (Output)</b></u>	<u><b>Teaching method</b></u>	<u><b>Assessment</b></u>
Unit 3	NA	<b>a)</b> Practical on fitting of binomial and poisson under different conditions. <b>b)</b> Fitting of normal distribution (with parameters known and unknown) <b>c)</b> Application problems based on binomial, poisson and normal distribution. <b>d)</b> Problems on area property of normal.	<b>a)</b> Using the theoretical concepts to solve real-life problems.  <b>b)</b> Grow practical problem skills.	Demonstration of Problem solving	Practical Problem solving and Assignments

# LORETO COLLEGE

## TIMEPLAN- SESSION 2025

4<sup>TH</sup> SEMESTER TOPIC WISE TIME PLAN PAPER:  
STAT-H-MC2-4-Th/P  
Descriptive Statistics II & Probability II (Theory)

Name of the teacher: Shabnam Dutta

Initials: SD

### Teaching Objective:

1/ To help students to understand correct usage and interpretation of different measures of descriptive Statistics while handling multivariate real life data.

<i>Units</i>	<i>Hours Allotted</i>	<i>Topics (as per curriculum)</i>	<i>Learning Outcomes</i>	<i>Teaching Method</i>	<i>Assessment</i>
Unit 1	15 hours	1/Bivariate data, Scatter plot, correlation, Regression (Linear, exponential, polynomial), correlation ratio, intraclass correlation Rank Correlation- Spearman, Kendal's tau.	1/ Knowledge on difference between application field of different measures. Relation and comparison between the measures.  2/ Goodness of fit for curve fittings.	1/Interactive lecture 2/ Real life Application	1/ Problem solving 2/ Class performance 3/ Assignment and Class tests.
Unit 2	5 hours	1/ Analysis of categorical data-contingency table, independence.	1/ Understanding difference of approaches, between dealing with categorical and metric data, while finding an index to measure same characteristics.  2/ To be able to use concepts in diverse everyday situations for decision making.	1/Interactive lecture 2/ Problem Solving 3/ Real life Application	1/ Problem solving 2/ Class performance 3/ Assignment and Class tests.

# LORETO COLLEGE

## TIMEPLAN-SESSION 2025

4<sup>TH</sup> SEMESTER TOPIC WISE TIME PLAN PAPER:

STAT-H-MC2-4-Th/P

Descriptive Statistics II & Probability II (Practical)

Name of the teacher: Shabnam Dutta

Initials: SD

### Teaching Objective:

1/ To help students to properly apply the correct descriptive measures and concepts for diverse real-life data in hand and correctly interpret the results according to the data.

<i>Units</i>	<i>Hours Allotted</i>	<i>Topics (as per curriculum)</i>	<i>Learning Outcomes</i>	<i>Teaching Method</i>	<i>Assessment</i>
Unit 1	NA	Problems based on bivariate data and rank correlation.	Be properly able to use theoretical concepts in practical data and interpret the results according to varying type of data in hand.	1/Demonstration of problem solving	1/ Practical Problem solving 2/ Assignment
Unit 2	NA	1/ Problems based on categorical data	1/ To be able to use results and concepts in diverse everyday situations for decision making.	1/Demonstration of problem solving	1/ Practical Problem solving 2/ Assignment