LORETO COLLEGE

TIME PLAN FOR SESSION 2026

4TH Semester Topic-wise Time Plan
Paper: STAT-H-MC2-4-Th (Statistics Minor)
Descriptive Statistics II and Probability II (Theory)

Name of the teacher: Dhitashree Paria
Initials: DP

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.

Units	***Hours Allotted***	***Topics (as per curriculum)***	***Learning Outcomes***	***Teaching Method***	***Assessment***
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 compariso n 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.	1/Interactive lecture 2/ Problem Solving 3/ Real life Application	1/ Problem solving 2/ Class performance 3/ Assignment and Class tests.

			2/ To be able to use concepts in diverse everyday situations for decision making.		

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

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

Name of the teacher: Dhitashree Paria
Initials: DP

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

Units	***Hours Allotted***	***Topics (as per curriculum)***	***Learning Outcomes***	***Teaching Method***	***Assessment***
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 compariso n 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.	1/Interactive lecture 2/ Problem Solving 3/ Real life Application	1/ Problem solving 2/ Class performance 3/ Assignment and Class tests.

			2/ To be able to use concepts in diverse everyday situations for decision making.		

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