Sankalchand Patel University

Faculty of Commerce

Bachelor of Commerce (SEM-4)

In Effect from Academic Year 2017-18

Subject Code: 1CM1010413	**Subject Title: ADVANCED STATISTICS -3**

Course Objective: To make the students aware about different statistical approaches which are applicable in corporate world.

Teaching Scheme (Hours per week)				**Evaluation Scheme (Marks)**		
Lecture	**Tutorial**	**Practical**	**Credit**	**University Assessment**	**Institutional Assessment**	**Total**
3	-	-	3	70	30	100

Subject Contents			
Sr. No	**Topic**	**Total Hours**	**Weight (%)**
1	**Mathematical Expectation :** Joint probability distribution of two variables X and Y, their marginal probability distributions, expected values of X+Y and X·Y and their properties, covariance between X and Y, properties of variance for dependent and independent variables, Examples related to these property and its applications.	9	25%
2	**Discrete Probability Distribution - 1 :** Probability mass function of Binomial distribution, simple applications, deriving mean and variance of Binomial distribution, properties of Binomial distribution, fitting of Binomial distribution and its applied examples. Probability mass function of Poisson distribution as a limiting case of Binomial distribution (without proof), simple applications, deriving mean and variance of Poisson distribution, properties of Poisson distribution, fitting of Poisson distribution.	9	25%
3	**Discrete Probability Distribution - 2 :** Probability mass function of Negative Binomial distribution and Geometric distribution, simple applications, deriving mean and variance of these distributions, and their properties and simple examples, Probability mass function of Hyper-geometric distribution, properties of Hypergeometric distribution and simple applications.	9	25%
4	**Continuous Probability Distribution :** Probability Density Function of Normal distribution, deriving mean and variance of Normal distribution, properties of Normal distribution, examples based on it and applied problems of Normal distribution.	9	25%

Reference Books:

1. Goon. Gupta, Dasgupta : "An outline of Statistical Theory" Vol-1 and II. World Press, Calcutta

2. Sancheti & Kapoor : Business Statistics. Sultan Chand & Sons, New Delhi.

3. S.C. Gupta: "Fundamentals of Mathematical Statistics" Sultan Chand & Sons, New Delhi.

4. Levin and Rubin: "Statistics for Management", Prentice Hall of India Pvt. Ltd. New Delhi.

5. Parimal Mukhopadhyay : "Mathematical Statistics" Books & Allied (P) Ltd.