Bachelor of Vocation - Retail Management & IT course (Semester-5)

Undergraduate Curriculum Framework 2022(UGCF)

DISCIPLINE SPECIFIC ELECTIVE –DSE-3 Basic Statistics

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course title & Code	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course(if any)
		Lecture	Tutorial	Practical/ Practice		
DSE-3 Basic Statistics	**4**	**3**	**1**	**0**	**N/A**	**N/A**

Learning Objectives:
To motivate students towards intrinsic interest in statistical thinking. To analyze and interpret data.

Learning Outcomes:

After completing this course, students should have developed a clear understanding of:

1. Basic concepts of Statistics.
2. Distinguish between different types of data.
3. Graphical methods of displaying data.
4. Measures of Locations and dispersion.
5. Concept of Bi-Variate Data.
6. Principle of Least Squares.
7. Introduction to the basics of Probability

Syllabus:

Unit 1 (8 Hours)

Concepts of a statistical population and sample, quantitative and qualitative data, discrete and continuous data. Presentation of data by tables and by diagrams, frequency distributions for discrete and continuous data, graphical representation of a frequency distribution by histogram and frequency polygon, and cumulative frequency distributions.

Unit 2 (15 Hours)

Measures of Central Tendency: Arithmetic mean, Median and Mode.
Measures of Dispersion: Range, Quartile Deviation and Mean Deviation, Variance, Standard deviation, and Coefficient of variation.

Unit 3 (12 Hours)

Bi-variate data: Scatter diagram, the principle of least-squares, and fitting of straight lines. Correlation and regression. Karl Pearson coefficient of correlation, Lines of regression, Spearman's rank correlation coefficient.

Unit 4 (10 Hours)

Random experiment, sample space, event, Definition of Probability, mutually exclusive events. Conditional probability and independent events.

Essential/Suggested Readings-

1. Das, M.N. and Giri, N.C. (1986)Design and Analysis of Experiments. Wiley Eastern.
2. Goon, A.M., Gupta, M.K. and Dasgupta, B. (2005). Fundamentals of Statistics (8th ed. Vol I). World Press, Kolkata.
3. J.E Freund (2009), Mathematical Statistics with Applications, 7th Ed, Pearson Education

Note: Examination scheme and mode shall be as prescribed by the Examination Branch, University of Delhi, from time to time.