

<b>COURSE TITLE</b>	<b>BUSINESS STATISTICS</b>
<b>COURSE CODE</b>	<b>04BC1205</b>
<b>COURSE CREDITS</b>	<b>4</b>

**Course Outcomes:** After completion of this course, student will be able to:

- 1 Acquire a fair degree of proficiency in comprehending statistical data, processing and analyzing it.
- 2 Apply various measures of central tendency and measures of dispersion in data analysis
- 3 Analyze the relationship between two variables using concepts of correlation and regression and its use in prediction
- 4 Develop an understanding of the index numbers and their utility in daily life and stock market
- 5 Analyze and apply the concept of probability and distributions in managerial decision making

**Pre-requisite of course:**NONE

#### Teaching and Examination Scheme

<b>Theory Hours</b>	<b>Tutorial Hours</b>	<b>Practical Hours</b>	<b>ESE</b>	<b>IA</b>	<b>CSE</b>	<b>Viva</b>	<b>Term Work</b>
3	1	0	50	30	20	0	0

<b>Contents : Unit</b>	<b>Topics</b>	<b>Contact Hours</b>
1	<b>Data Preparation and Presentation</b> Introduction, Classification of Data , Organizing data using data array, Tabulation of Data ,Graphical Presentation of Data, Types of Diagrams , Exploratory Data Analysis. Use of MS-Excel to create Frequency Distribution and Graphs	8
2	<b>Measures of Location and Scale</b> Introduction, Mathematical Averages , Geometric Mean , Harmonic Mean Relationship Among AM,GM & HM, Partition Values, Mode, Relationship Between Mean , Median and Mode , Comparison between Measures of Central Tendency, Range; Quartile deviation; Inter Quartile Range; Mean Deviation; Standard Deviation; Variance & Coefficient of Variation; Concept of Skewness & Kurtosis, Use of MS Excel Statistical function to find descriptive measures	10
3	<b>Bivariate Analysis</b> Introduction, Significance of Measuring Correlation, Correlation and Causation, Types of Correlation, Methods of Correlation Analysis. Two lines of regression , regression coefficients , prediction, Use of MS Excel Statistical Function to compute correlation and regression	10

<b>Contents : Unit</b>	<b>Topics</b>	<b>Contact Hours</b>
4	<b>Construction of Index Numbers</b> Introduction, Definition, Types, Characteristics and Uses of Index numbers; Methods of Construction of Index numbers (Price, Quantity, Value), Unweighted Index numbers, Weighted Index numbers (Laspeyre's, Paasche's, Fisher's, Marshall-Edgeworth, Dorbish-Bowley's Index numbers)	10
5	<b>Probability and Probability Distribution</b> Introduction to Permutation and Combination, Counting Rules, Concepts of Probability, Definition of Probability, Rules of Probability (Addition and Multiplication). Mathematical Expectation, Binomial Distribution, Normal Distribution – Properties and Applications	10
<b>Total Hours</b>		<b>48</b>

#### **Textbook :**

- 1 Business Statistics, J.K.Sharma, Vikas Publishing House Pvt. Ltd, 2014
- 2 Business Statistics, N D Vohra, McGraw Hill Education, 2012
- 3 Statistics for Business and Economics, R P Hooda, Vikas Publishing House Pvt. Ltd, 2015

#### **References:**

- 1 Statistics: Theory, Methods & Application, Statistics: Theory, Methods & Application, Sancheti D.C. and Kapoor V.K, Sultan Chand & Sons, 2014
- 2 Fundamentals of Statistics, Fundamentals of Statistics, S.C. Gupta, Himalaya Publishing House, 2015
- 3 Business Statistics, Business Statistics, Beri, G.C, TMH, 2009

#### **Suggested Theory Distribution:**

The suggested theory distribution as per Bloom's taxonomy is as follows. This distribution serves as guidelines for teachers and students to achieve effective teaching-learning process

Distribution of Theory for course delivery and evaluation					
<b>Remember / Knowledge</b>	<b>Understand</b>	<b>Apply</b>	<b>Analyze</b>	<b>Evaluate</b>	<b>Higher order Thinking / Creative</b>
20.00	30.00	25.00	15.00	10.00	0.00

#### **Instructional Method:**

- 1 THEORY

#### **Supplementary Resources:**

- 1 <https://www.statista.com>