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| **INSTITUTE** | **FACULTY OF MANAGEMENT STUDIES** |
| **PROGRAM** | **BACHELOR OF BUSINESS ADMINISTRATION** |
| **SEMESTER** | **2** |
| **COURSE TITLE** | **STATISTICS FOR BUSINESS** |
| **COURSE CODE** | **04BB0203** |
| **COURSE CREDITS** | **4** |

**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. Analyze the patterns revealed by the time series data and use it to make predictions for the future.
5. Analyze and apply the concept of probability and distributions in managerial decision making.

**Pre-requisite of course:**N/A

**Teaching and Examination Scheme**

| Theory Hours | Tutorial Hours | Practical Hours | ESE | IA | CSE | Viva | Term Work |
|---|---|---|---|---|---|---|---|
| 4 | 0 | 0 | 50 | 30 | 20 | 0 | 0 |

| Contents : Unit | Topics | Contact Hours |
|---|---|---|
| 1 | **Classification and Tabulation**<br>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 | **Measures of Central Tendency and Dispersion**<br>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 |

MR. PARAS CHANDULAL RUGHANI
**Digitally signed by (Name of HOD)**

DR. SUNIL KUMAR JAKHORIA
**Digitally signed by (Name of Dean/ Principal)**

| Contents : Unit | Topics | Contact Hours |
|---|---|---|
| 3 | **Correlation and Regression**<br>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 |
| 4 | **Trend Analysis in Time Series**<br>Introduction ,Components of Time Series; Additive and Multiplicative Models; Fitting of Linear Trend Line, Second degree Parabola by Using Principles of Least Squares | 10 |
| 5 | **Probability and Probability Distribution**<br>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 |
| **Total Hours** | | **48** |

**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

| Remember / Knowledge | Understand | Apply | Analyze | Evaluate | Higher order Thinking |
|---|---|---|---|---|---|
| 20.00 | 30.00 | 25.00 | 15.00 | 10.00 | 0.00 |

**Instructional Method:**

1 Theory

2 Practical Sums

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