COURSE TITLE	**STATISTICS FOR BUSINESS**
COURSE CODE	**04BB1203**
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: None

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	**Introduction to Statistics:** Definition of Statistics, Importance and scope of statistics, Limitations of Statistics,, Classification of Data, Sources of Data,, Data measurement level, Tabulation of Data , Graphical Presentation of Data , Types of Diagrams: One Dimensional, Concept of Exploratory Data Analysis, , Use of MS-Excel to create Frequency Distribution and Graphs	10
2	**Measures of Central Tendency and Dispersion** Measures of Central Tendency: Introduction, , Types of Average: Arithmetic & Positional Averages Mathematical Averages , Geometric Mean , Harmonic Mean Relationship Among AM,GM & HM, , Partition Values: Quartiles, Deciles, Percentiles, Mode, Relationship Between Mean , Median and Mode, Comparison between Measures of Central Tendency, Measures of Dispersion: Absolute measures and relative measures,, Range; Quartile deviation; Inter Quartile Range; Standard Deviation; Variance & Coefficient of Variation; Concept of Skewness & Kurtosis, , Use of MS Excel Statistical function to find descriptive measures	15

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Contents : Unit	Topics	Contact Hours
3	**Correlation and Regression** Correlation: Introduction, , Significance of Measuring Correlation, Correlation and Causation, Types of Correlation,, Methods of Correlation Analysis: Scatter Diagram, Karl Pearson Product Moment Method, Spearman Rank Correlation, Properties of Correlation Coefficient., Regression: Introduction,, Meaning, Types of variable, Two lines of regression, regression coefficients, Properties of Regression Coefficients residual value, standard error. , Use of MS Excel Statistical Function to compute correlation and regression	15
4	**Trend Analysis in Time Series** Introduction, Components of Time Series, Time Series Decomposition Models: Additive and Multiplicative Models; Methods of Time Series Analysis, Simple Moving Average: 3 yearly, 4 yearly and 5 yearly, , Methods of Time Fitting of Linear Trend Line, Second-degree Parabola by Using Principles of Least Squares	10
5	**Probability:** Introduction to Permutation and Combination,, Counting Rules , Concepts of Probability, , Definition of Probability, Rules of Probability(Addition, Multiplication and Condition Probability),, Practical Application	10
Total Hours		**60**

Textbook :

1 Business Statistics, J.K.Sharma, Vikas Publishing House Pvt. Ltd, 2020

2 Business Statistics, Naval Bajpai, Pearson India Education Services Pvt Ltd, 2020

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 HouseHimalaya 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	20.00	30.00	20.00	10.00	0.00

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Instructional Method:

1 theory
2 Practical

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