Name of the Program: BBA

Course Code: BBA 3.3

Name of the Course: STATISTICS FOR BUSINESS DECISIONS

Course Credits	No. of Hours per Week	Total No. of Teaching Hours
4 Credits	4 Hrs.	56 Hrs.

Pedagogy: Classroom lectures, Tutorials, and Problem Solving.

Course Outcomes: On successful completion of the course, the students will be able

- To understand the basic concepts in statistics.
- To classify and construct statistical tables.
- To understand and construct various measures of central tendency, dispersion and skewness.
- To apply correlation and regression for data analysis.

Syllabus:	Hours
Module No. 1: Introduction to Statistics	**12**

Introduction – Meaning, Functions and Uses of Statistics; Collection of Data - Techniques of Data Collection – Census Technique and Sampling Technique (Concepts). **Classification**: Meaning, and Methods of Classification of Data, **Tabulation**: Meaning, Parts of a Table – Simple problems on Tabulation; **Diagrammatic Presentation**: Bar Diagrams – Simple Bars, Multiple Bars, Percentage Sub-divided Bar Diagram; Two Dimensional Diagrams – Pie Diagram.

Module No. 2: Measures of Central Tendency and Dispersion	**14**

Measures of Central Tendency: Calculation of Arithmetic Mean, Median and Mode for Individual, Discrete and Continuous Series – Problems; Empirical relation between Mean, Median and Mode.

Measures of Dispersion: Absolute and Relative measures of dispersion - StandardDeviation in Individual, Discrete and Continuous Series – Problems

Measures of Skewness: Calculation of Karl Pearson's Co-efficient of Skewness (Uni-modal) – Problems.

Module No. 3: Correlation and Regression Analysis	**10**

Correlation Analysis - Meaning, Types of Correlation, Calculation of Karl Pearson's Coefficient of Correlation, Computation of Probable Error,

Regression Analysis – Concept of Regression, Regression equations- Problems.

Module No. 4: Time Series Analysis	**12**
Meaning, Components, fitting a straight-line trend using Least Square Method (Problems where $\Sigma X=0$ only), calculation and estimation of trend values.	
Module No. 5: Index Numbers	**12**
Index number, Construction of Index number, Methods of Index number - simple aggregate method, Weighted method - Fishers Ideal Index Number-Problems. Tests of Adequacy (Unit test, TRT, FRT, Circular test). Consumer Price Index Number-Problems.	

Skill Developments Activities:

a) Data Visualization practical session Using Tableu/Power BI.

b) Execute Average, Variance, Standard Deviation, CV, Covariance using Excel.

c) Execute and Analyse Regression Model using Excel,

d) Practical session on Time series models using GRETL

e) Collect past years' Indian consumer price index data (as of the current base year)and analyse its impact on any macroeconomic indicator.

Text Books:

1. S P Gupta: Statistical Methods- Sultan Chand

2. Dr. B N Gupta: Statistics, Sahithya Bhavan

3. S.C Gupta: Business Statistics, HPH

4. N.V.R Naidu: Operation Research I.K. International Publishers

5. Elhance: Statistical Methods, Kitab Mahal

6. Sanchethi and Kapoor: Business Mathematics, Sultan Chand

7. Veerachamy: Operation Research I.K. International Publishers

8. S. Jayashankar: Quantitative Techniques for Management

9. D.P Apte; Statistical Tools for Managers

10. Chikoddi & Satya Prasad: Quantitative Analysis for Business Decision, HPH

11. Dr. Alice Mani: Quantitative Analysis for Business Decisions - I, SBH

Note: Latest edition of text books may be used.