



**Subject:** Statistics for Managers - MBAXX11302

**Type of course:** Value Added Courses (VAC)

**Prerequisite:**

To study Statistics for Managers, a basic grasp of math and quantitative reasoning, including algebra, calculus, and foundational statistical concepts, is required. Proficiency in descriptive statistics, probability theory, and spreadsheet software like Microsoft Excel is essential for data analysis. A logical and analytical mindset, coupled with the ability to interpret and communicate statistical findings, enhances success in applying statistical concepts to managerial decision-making.

**Rationale:**

Statistics for Managers in an MBA program equips future leaders with essential skills, enabling effective data analysis for informed decision-making in business. The course covers data collection, pattern recognition, risk assessment, and strategic evaluation, empowering managers to navigate the complexities of the modern business landscape.

**Teaching and Examination Scheme:**

Teaching Scheme			Credits	Examination Marks					Total Marks
CI	T	P		C	Theory Marks		Practical Marks		
			ESE		MSE	V	P	ALA	
03	00	00	03	60	30	10	00	50	150

*Legends: CI-Classroom Instructions; T – Tutorial; P - Practical; C – Credit; ESE - End Semester Examination; MSE- Mid Semester Examination; V – Viva; CA - Continuous Assessment; ALA- Active Learning Activities.*



**Continuous Assessment:**

(For each activity minimum - maximum range is 5 to 10 marks)

Sr. No	Active Learning Activities	Marks
1	<b>Assignment:</b> Students have to submit the assignment base on given topic by the concerned faculty on MOODLE.	10
2	<b>Pros &amp; Cons:</b> Students have to submit the Pros & Cons assignment base on topic given topic by the concerned faculty which submits on MOODLE.	10
3	<b>Data Collection:</b> Students have to collect data from real world scenario which guide by concerned faculty which submit on MOODLE.	10
4	<b>Statistics by using Excel:</b> Students have to perform task which allotted by the faculty on excel and submit it on MOODLE.	10
5	<b>Report:</b> Students have to draft the report on the given topic by faculty and submit it on MOODLE.	10
Total		50

**Course Content:**

Sr. No	Course content	Hrs.	% Weightage
1	<b>Introduction to Statistics and Data Collection:</b> Introduction to Statistics and its Importance in Business Decision making, Types of Data: Qualitative and Quantitative, Data Collection Methods: Surveys, Experiments, Observations, Sampling Techniques and Sampling Errors	10	20
2	<b>Averages OR Measures of Central Tendency:</b> Various Measures of Central Tendency: Arithmetic Mean or simply Mean, Mode <b>Measures of Positional Average:</b> Median, Quartiles, Deciles, Percentiles	15	40
3	<b>Measures of Dispersion:</b> Introduction and Meaning, Objective, Characteristics <b>Correlation Analysis:</b> Introduction, What is Correlation? Correlation Analysis, Scatter Diagram, Correlation Graph, Pearson's Coefficient of Correlation, Spearman's Rank Correlation, Concurrent Deviation Method, Limitations of Correlation Analysis,	10	20
4	<b>Index Numbers:</b> Introduction, What are Index Numbers? Uses of Index Numbers, Methods of Constructing Index Numbers (Simple (Unweighted) Aggregate Method, Weighted Aggregate Method)	10	20



**Suggested Specification table with Marks (Theory):60**

Distribution of Theory Marks (Revised Bloom's Taxonomy)						
Level	Remembrance (R)	Understanding (U)	Application (A)	Analyze (N)	Evaluate (E)	Create (C)
Weightage	15%	35%	40%	5%	5%	-

Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the question paper may vary slightly from above table.

**Course Outcome:**

After learning the course the students should be able to:	
CO1	Understand the significance of statistics and able to explore diverse data collection methods and assess sampling error sources.
CO2	Learn to calculate and interpret central tendency measures and positional averages and analyze their variations across different data sets.
CO3	Gain proficiency in dispersion, correlation analysis, and its practical applications, including calculations, interpretation, and limitations.
CO4	Define index numbers, apply construction methods, and assess their economic and business applications.

**Instructional Method:**

The course delivery method will depend upon the requirement of content and need of students. The teacher in addition to conventional teaching method by black board, may also use any of tools such as demonstration, role play, Quiz, brainstorming, MOOCs etc.

From the content 10% topics are suggested for flipped mode instruction.

Students will use supplementary resources such as online videos, NPTEL/SWAYAM videos, e-courses, Virtual Laboratory

The internal evaluation will be done on the basis of Active Learning Assignment

Practical/Viva examination will be conducted at the end of semester for evaluation of performance of students in laboratory.

**Reference Books:**

- [1] "Business Statistics" by S.C. Gupta and Indra Gupta
- [2] "Business Statistics" by J.K. Sharma
- [3] "Business Statistics" by P.N. Arora and S. Arora

