Semester-2

S. No.	Course Code	Course Name	Course Type	Cd	L	T	P	Marks		
								Mid-Semester	End-Semester	Total
1.	BFSMJ-201	Business Mathematics & Statistics	Major	4	4	0	0	40	60	100

Course Outcomes:

At the end of the course the student will be able to:	
CO1	To help students understand the concept of business maths and statistics and its importance in quick decision making.
CO2	To apply the concept of Mean, Median and Mode which are measures of central tendency.
CO3	To enable students, understand the Measures of dispersion and its applicability in research.
CO4	To equip students with the knowledge of correlation and regression and its applicability in decision making
CO5	To make students understand how to compute Time series and Index numbers and understand their uses.

Detailed Syllabus
Section A
Business Mathematics

Unit I: Matrices: Definition of a matrix. Types of matrices; Algebra of matrices. Calculation of values of determinants up to third order; Ad joint of a matrix; Finding inverse of a matrix through ad joint; Applications of matrices to solution of simple business and economic problems.

(10 Hrs)

Unit II: Basic Mathematics of Finance: Simple and compound interest Rates of interest – nominal, effective and continuous – their interrelationships; Compounding and discounting of a sum using different types of rates.

(09 Hrs)

Section B
Statistics

Unit III: Uni Variate Analysis: Measures of Central Tendency including arithmetic mean, geometric mean and harmonic mean: properties and applications; mode and median. Partition values - quartiles, deciles, and percentiles. Measures of Variation: absolute and relative. Range, quartile deviation and mean deviation; Variance and Standard deviation: calculation and properties.

(**10 Hrs)**

Unit IV: Bi Variate Analysis: Simple Linear Correlation Analysis: Meaning, and measurement. Karl Pearson's co-efficient and Spearman's rank correlation, Simple Linear Regression Analysis: Regression equations and estimation. Relationship between correlation and regression coefficients.

(10 Hrs)

Unit V: Time-based Data: Index Numbers and Time-Series Analysis-: Meaning and uses of index numbers; Construction of index numbers: Aggregative and average of relatives – simple and weighted, Tests of adequacy of index numbers, Construction of consumer price indices. Components of time series; additive and multiplicative models; Trend analysis: Finding trend by moving average method and Fitting of linear trend line using principle of least squares.

(9 Hrs)

Text Books:

S. No.	Name of the Books	Author	Publisher	Edition (Pub. Yr.)
1.	Mathematics for Business and Social Sciences Perspective	Mizrahi and John Sullivan	Wiley and Sons.	4th, 2012
2.	Business statistics	C.M. Chikkodi, & Satya Prasad. B	Himalaya publishing house	2nd, 2014

Reference Book:

S. No.	Name of the Books	Author	Publisher	Edition (Pub. Yr.)
1.	Business Statistics	Aggarwal, S., & Bhardwaj, S Merchant	Kalyani Publisher	18th, 2018