

**SES'S L. S. RAHEJA COLLEGE OF ARTS AND  
COMMERCE  
(AUTONOMOUS)**



Syllabus of Business Statistics under NEP 2020 vertical (OE) with effect from 2024-25

**Programme:** B.Com (Financial Markets)

Department of Mathematics, Statistics and Computer

**HoD/Sr. Person of the Department:** Dr. Seema Ukidve

**Date of approval by the BoS:** 24/04/2024

**Approved by the Academic Council:** 29/04/2024

**Approved by the Governing Body:** 06/05/2024



<b>Program:</b> B. Com (Financial Markets)				<b>Semester:</b> II	
<b>Course:</b> : Business Statistics <b>Academic Year:</b> 2024-2025 <b>Batch:</b> 2024-2027				<b>Code:</b> UGBFMIIOE124	
<b>Teaching Scheme</b>				<b>Evaluation Scheme</b>	
<b>Lectures</b>	<b>Practicals</b>	<b>Tutorials</b>	<b>Credits</b>	<b>Internal Continuous Assessment (ICA) (weightage)</b>	<b>Term End Examination (TEE) (weightage)</b>
<b>30</b>	<b>Nil</b>	<b>Nil</b>	<b>2</b>	<b>20</b>	<b>30</b>
<b>Internal Component</b>					
<b>Class Test (Duration 30 Mins)</b>			<b>Presentation</b>		<b>Class Participation</b>
<b>10</b>			<b>5</b>		<b>5</b>
<b>Learning Objectives:</b>					
<ul style="list-style-type: none"> <li>• To provide an overview to the students with the basic concepts involved in Statistics.</li> <li>• To apply the basics of Statistical skills which are imperative in Economics and Management.</li> <li>• To take well-informed decisions in predictable and uncertain situations.</li> </ul>					
<b>Learning Outcomes:</b>					
<ul style="list-style-type: none"> <li>• After completion of the course, students would be able.</li> <li>• To understand the various issues involved in the collection, analysis and arriving at conclusive Decisions regarding quantitative data.</li> <li>• To understand and appreciate the practical relevance of various basic statistical tools in the Field of finance and economics.</li> </ul>					
<b>Pedagogy:</b>					
<ul style="list-style-type: none"> <li>• Adaptive teaching methods.</li> <li>• To invoke Computational thinking in problem solving.</li> <li>• Classroom session with applications in MS-excel in Tutorial Lecture. 4. Students would be given project/field work better understanding of the concept</li> </ul>					

**Detailed Syllabus: (per session plan) Session Outline for Business Statistics**  
**Each lecture session would be of one hour duration (30 Sessions) (SEM -II)**

Module	Module Content	Module Wise Pedagogy Used	Module Wise Duration
I	<p><b>a. Descriptive Statistics:</b></p> <p>I) <b>Measures of Central Tendency:</b> Definition of Average, Types of Averages: Arithmetic Mean, Combined and Weighted arithmetic mean, median, and Mode for raw data, Ungrouped frequency. distribution, grouped frequency distribution. Quartiles, Deciles and Percentiles.</p> <p>II) <b>Measures of Dispersions:</b> Concept of dispersion. Absolute and relative measures of dispersion, Range, Quartile Deviation, Mean Deviation, Standard Deviation and corresponding coefficients. Combined Standard deviation. Use of Excel solving problems</p>	Classroom sessions with computational thinking.	7+8
II	<p><b>Correlation and regression:</b></p> <p>I) <b>Correlation:</b> Concept of correlation, positive and negative correlation, Karl Pearson's Coefficient of Correlation</p> <p>II) <b>Regression: meaning</b> of regression, two regression equations, Regression coefficients and properties</p> <p>III) <b>Probability Theory</b>            Concept of random experiment/trial and possible outcomes; Sample Space and Discrete Sample Space; Events their types, Algebra of Events, Mutually Exclusive and Exhaustive Events, Complimentary events.</p> <p>i) Classical definition of Probability, Addition theorem (without proof), conditional probability.</p>	Classroom sessions with computational thinking.	7+8

	ii) Independence of Events: $P(A \cap B) = P(A)P(B)$ . Simple examples iii) Bayes Theorem		
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**Reference Books:**

- Statistics for management Richard Levin, David S. Rubin, Sanjay Rastogi /Masooos Husain siddiqui. Pearson.
- *M. P. Chaudhary, Advanced Applied Mathematics*, Piyush Book Publication Pvt. Ltd. New Delhi, India, **2003**.ISBN:81-86548-64-5.
- Introduction to Probability and Statistics for Engineers and Scientists by Sheldon M. Ross
- Operations Research - An Introduction - By Hamdy A. Taha
- Introduction to Operations Research by Frederick S. Hillier, Gerald J. Lieberman and Bodhibrata Nag

## QUESTION PAPER PATTERN

<b>Details of Internal Continuous Assessment (ICA)</b>	
<b>Internal Marks: 20</b>	
<ul style="list-style-type: none"><li>• 1 Internal Test of 10 marks will be conducted.</li><li>• 1 Assignment of 10 Marks will be given.</li></ul>	
<b>Term End Examination Question Paper Pattern Total Marks: 30</b>	
Q1 Answer any <b>three</b> out of the following Four questions (based on Module I)	5*3=15
Q2 Answer any <b>three</b> out of the following Four questions (Based on Module II)	5*3=15