



**Bharati College**  
 (University of Delhi)  
 Janak Puri, Delhi- 100058  
[www.bharaticollege.du.ac.in](http://www.bharaticollege.du.ac.in)



Formatted: Centered

**Lesson Plan (DSECORE, Semester VI, July to November 2022)**

<b>Name of Teacher</b>	<a href="#">Dr. Nishtha Bhushan</a>	<b>Department</b>	<a href="#">Commerce</a>
<b>Course</b>	<a href="#">B.Com. (Hons.)</a>	<b>Semester</b>	<a href="#">V</a>
<b>Paper</b>	<a href="#">Business Statistics</a>	<b>Academic Year</b>	<a href="#">2022-2023</a> <a href="#">(July-December)</a>
<b>Learning Objectives</b>			
<a href="#">The objective of the course is to familiarize students with the applications of statistical techniques in business decisions. To familiarize the students with the basics statistical tools used to summarize and analyze quantitative information for business decision-making. To give an insight into measures of Central Tendency, Dispersion, Moments, Skewness, Kurtosis, Probability, Probability Distribution, Correlation, Regression, Index Numbers and Time Series.</a>			
<b>Learning Outcomes</b>			
<a href="#">On successful completion of this course, the student will be able to:</a>			
<a href="#">1. Should acquire a fair degree of proficiency in comprehending statistical data, processing and analyzing it using descriptive statistical tools.</a>			
<a href="#">2. Gather knowledge about the various probability concepts and distributions and their business applications.</a>			
<a href="#">3. Understand the relationship between two variables using concepts of correlation and regression and its use in identifying and predicting the variables.</a>			
<a href="#">4. Develop an understanding of the index numbers and their ability in daily life and stock market.</a>			
<a href="#">5. Become aware of the patterns revealed by the time series data and to use it to make predictions for the future.</a>			
<b>Lesson Plan</b>			

Formatted Table

Formatted: Left, Indent: Left: 0"

Formatted: Justified, Indent: Left: 0", Hanging: 0.13"

Formatted: Numbered + Level: 1 + Numbering Style: 1, 2, 3, ... + Start at: 1 + Alignment: Left + Aligned at: 0.07" + Indent at: 0.32"

Formatted: Font: 10 pt

Formatted: Font: 10 pt

Formatted: Font: 10 pt

Formatted: Font: 10 pt

Formatted: Font: 10 pt, Not Bold

Week No.	Theme/Curriculum	Any Additional Information
1-3	<p><b>UNIT I: Descriptive Statistics</b></p> <p>*<b>Measures of Central Tendency:</b> (Arithmetic Mean, Harmonic &amp; Geometric Mean), Positional Averages (Mode &amp; Median, Quartiles, Deciles and Percentiles) with graphic representation.</p> <p>* <b>Measures of Dispersion:</b> Absolute and Relative (Range, Quartile Deviation, Mean Deviation), Standard Deviation and its coefficients.</p> <ul style="list-style-type: none"> <li>* <b>Moments</b> (Skewness, its meaning and measurement and Bowley's measures and Kurtosis)</li> </ul>	<p>Using Spreadsheet to calculate measures of central tendency and dispersion.</p> <p>Assessment in the third week of August</p>
4-7	<p><b>UNIT II : Probability and Probability Distributions</b></p> <p>*Theory and Approaches of Probability.</p> <p>*<b>Probability Theorems:</b> Addition and Multiplication.</p> <p>*Conditional Probability and Bayes' Theorem.</p> <p>*Expectation and Variance of a Random Variable. Business Applications.</p> <p>*<b>Probability Distributions</b> (Binomial, Poisson and Normal)</p>	<p>Assessment in the fourth week of September</p>
8-9	<p><b>UNIT III : Simple Correlation and Regression Analysis</b></p> <p>*Correlation vs. Causation; Pearson's</p> <p>*Coefficient of Correlation; Computation and Properties; Probable and Standard Error; Rank Correlation.</p> <p>*<b>Regression Analysis:</b> Principle of Least Square and Regression Lines; Regression Equations and Estimation; Properties of Regression Coefficients; Relationship between Correlation and Regression Coefficients; Standard Error of Estimate.</p>	<p>Assessment in the second week of October</p>
10-12	<p><b>UNIT IV: Index Numbers</b></p> <p>*Meaning and Uses of Index Numbers;</p> <p>*Construction of Index Numbers: Fixed and Chain Base, Univariate and Composite;</p> <p>*Methods of Constructing Index Numbers: Aggregate and Average of Relatives- Simple and Weighted.</p> <p>*Tests of adequacy of index numbers; Base shifting, Splicing and Deflating; Problems in the construction of Index Numbers</p> <p>*Construction and Utility of CPI, BSE SENSEX and NSE NIFTY</p>	<p>Assessment in the fourth week of October</p>

Formatted: Indent: Left: 0.07", No bullets or numbering

Formatted: Font: Bold

Formatted: Font: Bold

Formatted: No bullets or numbering

Formatted: Font: Bold

Formatted: Font: Bold

Formatted: Indent: Left: 0", Hanging: 0.13"

Formatted: Indent: Left: 0.07", Hanging: 0.06"

Formatted: Font: Bold

Formatted: Font: 12 pt, Not Bold

Formatted: Font: 12 pt, Not Bold

Formatted Table

Formatted: Font: Bold

Formatted: Font: Bold

Formatted: Indent: Left: 0.05"

Formatted: Indent: Left: 0", Hanging: 0.05"

13-15	<p><b>UNIT V : Time Series Analysis</b></p> <p>*Time Series Data; Components of time series; Additive and Multiplicative Models.</p> <p>*Trend Analysis; Fitting of Trend Line using principle of least square- linear, second degree parabola and exponential; Shifting of Origin and Conversion of Annual Linear Trend Equation to quarterly/ monthly basis and vice-versa; Moving Averages.</p> <p>*Seasonal Variations: Calculation of Seasonal Indices using Simple Averages, Ratio-to-Trend and Ratio-to-Moving Averages methods; Uses of Seasonal Indices.</p>	<p><u>Assessment in the second week of November</u></p>
-------	---	---

- Formatted: Font: 12 pt, Not Bold
- Formatted: Font: Bold
- Formatted: Font: Bold
- Formatted: Font: 12 pt, Not Bold

<p><b>References</b></p> <ol style="list-style-type: none"> <li>1. Anderson, Sweeney and William. <i>Statistics for Students of Economics and Business</i>. Cengage .</li> <li>2. Gupta, S.P. and Gupta, Archana. <i>Statistical Methods</i>. Sultan Chand and Sons, New Delhi.</li> <li>3. Levin, Richard, David S. Rubin, Rastogi, and Siddqui. <i>Statistics for Management</i>, Pearson Education.</li> <li>4. Thukral, J.K. <i>Business Statistics</i>, Taxmann Publications.</li> <li>5. Vohra, N.D. <i>Business Statistics</i>, McGraw Hill.</li> <li>6. Siegel, Andrew F., <i>Practical Business Statistics</i>, Mc Graw Hill Publishing Co.</li> <li>7. Spiegel, M.D. <i>Theory and Problems of Statistics</i>, Schaum's Outline Series, McGraw Hill Publishing Co.</li> </ol> <p><b>Additional Resources</b></p> <ol style="list-style-type: none"> <li>1.</li> </ol>	
---	--

- Formatted: Font: (Default) Times New Roman, 12 pt
- Formatted: Font: (Default) Times New Roman, 12 pt

<p><b>Online Resources (If Any)</b></p>	
<p><b>Assignment and Class Test Schedule for Semester</b></p>	<p><a href="#">Link the assignment and Test (optional)</a></p>

|



**Formatted:** Indent: Left: 0"