

**Department of Statistics**  
**Institute of Social Sciences**  
**Dr. Bhimrao Ambedkar University, Agra**

**Value Added Course: Fundamental Data Analysis using SPSS**

Course Duration: 30 hours

Maximum Marks: 100

**Course Objectives**

Unit	Objectives	Mode of Teaching
I	Understanding of Data and Data preparation using SPSS	Theory & Practical
II	Exploration, visualization and basic analysis of data using SPSS	Theory & Practical
III	Understanding concept of Correlation and Regression using SPSS	Theory & Practical

**Course Content**

Unit	Content	Time
I	<b>Data Management and Introduction of SPSS::</b> <ul style="list-style-type: none"> <li>Types of Data, Metric and Nonmetric Data, Variables, Attributes, Mutually Exclusive Attributes, Independent and Dependent Variable, Extraneous Variable, Primary and Secondary Data.</li> <li>Introduction and history of SPSS</li> <li>Data Preparation in SPSS: Defining Variables and their Properties, Defining Variables for a Data File, Entering the Data, Importing Data in SPSS.</li> <li>Graphical representation of Data using SPSS</li> </ul>	
II	<b>Descriptive Analysis:</b> <ul style="list-style-type: none"> <li>Measures of Central Tendency, Mean, Median, Mode and their interpretation</li> <li>Measures of Variability, Range, Interquartile Range, Standard Deviation, Variance, The Index of Qualitative Variation, Standard Error, Coefficient of Variation (CV), Moments, Skewness, Kurtosis, Percentiles,</li> <li>Computation of Descriptive Statistics and Measures of Variability using SPSS, Interpretation of the Outputs.</li> </ul>	
III	<b>Corelation and Regression Analysis:</b> <ul style="list-style-type: none"> <li>Correlation, Karl Pearson Correlation Coefficient</li> <li>Calculating and testing the significance of Correlation Coefficient using SPSS</li> <li>Regression Analysis, Test of significance of Regression Parameters, Goodness of fit of Regression Equation, Uses of Regression Analysis in Prediction</li> <li>Use of SPSS in the Simple Regression Model</li> </ul>	

**Course Outcomes**

- The students will be able to install and use SPSS Software.
- Students will be able to apply various SPSS techniques in order to solve real life problems.
- Students will be able to process and analyse the data in order to extract information.
- From this course students will come to know how to analyse statistical data using SPSS software.