

## VALUE ADDED COURSE - 9

<b>NAME OF THE COURSE</b>	<b>: CERTIFICATE IN SAS PROGRAMMING AND SPSS FOR DATA ANALYSIS</b>
<b>COURSE COORDINATOR</b>	<b>: Mr. Noel George, Dept. of Biostatistics (SF)</b>
<b>DURATION OF THE COURSE</b>	<b>: 30 hrs</b>
<b>STUDENTS INTAKE</b>	<b>: 30</b>

### Objectives:

- In order to provide basic knowledge about SAS Program and its commands to enable students for data analysis.
- Basics of SPSS will also be taught with the objective of imparting basic awareness in data analysis using SPSS.
- This will benefit students from all Science streams, Social sciences and commerce and management disciplines.

### Syllabus

**Module 1:** Fundamentals of SAS Programming, SAS Log Window, SAS Output Window, Storing of SAS data sets, Creating SAS library, Basic SAS Program Rules, Difference between 'PROC' steps and 'DATA' steps, SAS Code for Practice, Reading and Modification of SAS Data Sets, Variable Name, Variable Types, Variable Length, Variable Format, Variable Label, Illustrations, The Work Library. **(10 Hrs)**

**Module 2:** Basics of SPSS: Introduction to IBM SPSS Statistics, Data Loading in SPSS through Questionnaire, Data View, Variable View, Width, Label, Values, Decimals, Measure, Descriptive Analysis, charting with SPSS, Explore, P- P Plots and Q- Q Plots and Interpretations, Normality check through Histogram, Skewness and Kurtosis, Split File for running more numbers of commands in one attempt **(10 Hrs)**

**Module 3:** Data Management through Transformation, Normality tests, Kolmogorov Smirnov tests, One Sample z and t test for mean, critical value method, p-value method, Confidence Interval method, Independent Sample t-test and Paired Sample t test, Chi-square test for testing the association between attributes Correlation, Simple Linear Regression, R Square, Adjusted R Square, ANOVA, multiple comparisons, Non-parametric Analysis **(10 Hrs)**

### Course Outcomes

- The students will be enabled to undertake data analysis tasks required in preparing project reports and dissertations using statistical techniques.
- The students can undertake research projects, field surveys, data compilation, graphical displays etc.
- The participants are tailored with demands for data analysts in the global analytics market.

### Mode of Evaluation

Attendance, Assignments, Practical Works, Oral and Written test papers, Project Work and Report.