Who Should Attend

This basic course is for students with: Minimal experience in using IBM SPSS Statistics Also, students that are: New to using a statistical package for data analysis considering purchasing IBM SPSS

Course Outline

1 - Introduction to IBM SPSS Statistics

* Explain the basic steps of data analysis using IBM SPSS Statistics
* Describe the roles of the primary windows within IBM SPSS Statistics
* Describe the basic layout of IBM SPSS Statistics dialog boxes

2 – Reading and Saving Data

* Describe the choices on the file menu to read and save data files
* Read Excel, and csv files
* Read delimited (comma, pipe, tab, semicolon, colon) text files
* Read fixed length text files
* Read data from Database/RDBMS Server (MS SQL Server, MY SQL Server)
* Saving Data Files in External Formats
* Saving Data Files in Excel Format
* Saving Data Files in SAS Format
* Saving Data Files in Stata Format
* Saving Subsets of Variables
* Exporting to a Database

3 - Variable Properties

* Describe all the variable properties(Variable Names, Variable Type, Variable Labels, Missing Values, Column Width
* Define variable properties in the Variable View window
* Define variable properties using the Define Variable Properties dialog
* Save variable properties with data in an IBM SPSS Statistics data file
* View variable properties interactively using Variables Utility
* View variable properties in tables using display Data Dictionary facility and Codebook procedure

4 - Working with the Data Editor

* Define levels of measurement
* Use the Frequencies procedure to produce tables and charts appropriate to nominal variables
* Use the Frequencies procedure to produce tables and charts appropriate for ordinal variables
* Use the Frequencies procedure to produce tables and charts appropriate for scale variables

5 - Modifying Data Values

* Use the features of Visual Binning to group a scale variable
* Use the features of Recode into a Different Variable for categorical variables
* Create new variables with numeric expressions
* Create new variables with conditional numeric expressions

6 - Describing Relationships between Variables

* Select the appropriate procedure to summarize the relationship between two variables
* Use the Crosstabs procedure to summarize the relationship between categorical variables
* Use the Means procedure to summarize the relationship between a scale and a categorical variable

7 - Selecting Cases

* Describe and use the features of the Select Cases dialog
* Describe and use the features of the Split File dialog

8 – Graphs and Visualization

* Use the Chart Builder to create various types of graphs
* Format and edit the graph in the Chart Editor
* Test the relationship between scale variables
* Chart the relationship between two scale variables
* Understating of x,y axis and data label
* Bar Graph
* Pie Graph
* Line Graph
* Scatterplot
* Histogram
* Boxplot and dot plot

9 – Statistics and Models

* Understanding and implementing of sum(),max(),min(),mean(),range(),mode(), pvalue, percentile, quantile etc.
* Descriptive Statistics (Basis of statistics, frequency)
* Measures of Central Tendency
* Measures of Dispersion
* Skewness and kurtosis
* Describe the relationship: Correlation
* Test on the correlation
* What is linear regression? Test on linear regression
* Explain unstandardized and standardized coefficients
* Test on the difference between two group means
* Compare the Independent-Samples T Test to the Paired-Samples T Test
* Chart the relationship between the group variable and scale variable
* Test on differences between more than two group means
* Describe the relationship: Compare group means
* Test the hypothesis of equal group means: One-Way ANOVA
* Test the relationship between categorical variables
* Test the relationship: The Chi-Square test in Crosstabs
* Assumptions of the Chi-Square test

10 - Output in the Viewer

* Navigate through the Viewer
* Customize a pivot table
* Create and apply a template for a pivot table
* Export output to other applications (¦Moving, Deleting, and Copying Output, Changing Initial Alignment, Changing Alignment of Output Items, HTML, Word/RTF, and Excel Options, ¦PDF Options)
* To Print Output and Charts

11 - Syntax Basics

* Use the Syntax Editor environment
* Create Syntax
* Run syntax
* Edit syntax using auto-completion of commands