

# **Delivery Type:** Instructor-led Online **Duration:** 2 days

#### **Overview**

NOTE: This is a live, instructor-led online course. Do not make arrangements to travel.

IBM SPSS Education is pleased to offer you our courses in an exciting learning format, Instructor-led Online (ILO). Students are offered a similar experience to live classroom training, with the convenience of having it delivered directly to their desktop.

Introduction to Statistical Analysis Using IBM SPSS Statistics is a two day instructor-led online course that provides an application-oriented introduction to the statistical component of IBM® SPSS® Statistics. Students will review several statistical techniques and discuss situations in which they would use each technique, the assumptions made by each method, how to set up the analysis, as well as how to interpret the results. This includes a broad range of techniques for exploring and summarizing data, as well as investigating and testing underlying relationships. Students will gain an understanding of when and why to use these various techniques as well as how to apply them with confidence, and interpret their output, and graphically display the results.

#### **Pre-Requisites**

You should have:

- ✓ General computer literacy
- ✓ Completion of the "Introduction to IBM SPSS Statistics" and/or "Data Management and Manipulation with IBM SPSS Statistics" courses or experience with IBM SPSS Statistics (Version 15 or later) including familiarity with opening, defining, and saving data files and manipulating and saving output

### Content

Introduction to Statistical Analysis

- ✓ Explain the basic steps of the research process
- ✓ Explain differences between populations and samples
- ✓ Explain differences between experimental and non-experimental research designs



- ✓ Explain differences between independent and dependent variables
- ✓ Understanding Data Distributions Theory
- ✓ Describe the levels of measurement used in IBM SPSS Statistics
- ✓ Use measures of central tendency and dispersion
- ✓ Use normal distributions and z-scores
- ✓ Data Distributions for Categorical Variables
- $\checkmark$  Use the options in the Frequencies procedure
- $\checkmark$  Interpret the results of the Frequencies procedure
- ✓ Data Distributions for Scale Variables
- ✓ Use the options in the Frequencies, Descriptives, and Explore procedures
- ✓ Interpret the results of the Frequencies, Descriptives, and Explore procedures
- ✓ Making Inferences about Populations from Samples
- ✓ Explain the influence of sample size
- ✓ Explain the nature of probability
- ✓ Explain hypothesis testing
- ✓ Explain different types of statistical errors and power
- ✓ Explain differences between statistical and practical importance
- ✓ Relationships Between Categorical Variables

## **Target Audience**

This basic course is for:

- ✓ anyone who has worked with IBM SPSS Statistics and wants to become better versed in the basic statistical capabilities of IBM SPSS Statistics Base
- ✓ anyone with limited or no statistical background
- ✓ anyone who wants to refresh their knowledge and statistical experience that were gained many years ago

