
Statistical Analysis Using IBM SPSS Statistics (V26)

Duration: 2 Days **Course Code: 0G51BG**

Overview:

This course 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, how to set up the analysis, and how to interpret the results. This includes a broad range of techniques for exploring and summarizing data, as well as investigating and testing relationships. Students will gain an understanding of when and why to use these various techniques and how to apply them with confidence, interpret their output, and graphically display the results.

Target Audience:

- IBM SPSS Statistics users who want to familiarize themselves with the statistical capabilities of IBM SPSS Statistics Base.
 - Anyone who wants to refresh their knowledge and statistical experience.
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Objectives:

- Introduction to statistical analysis
 - Describing individual variables
 - Testing hypotheses
 - Testing hypotheses on individual variables
 - Testing on the relationship between categorical variables
 - Testing on the difference between two group means
 - Testing on differences between more than two group means
 - Testing on the relationship between scale variables
 - Predicting a scale variable: Regression
 - Introduction to Bayesian statistics
 - Overview of multivariate procedures
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Prerequisites:

Experience with IBM SPSS Statistics (version 18 or later), or
Completion of the IBM SPSS Statistics Essentials course

Content:

Introduction to statistical analysis	<ul style="list-style-type: none"> • Chart the relationship 	<ul style="list-style-type: none"> • Describe the relationship
<ul style="list-style-type: none"> • Identify the steps in the research process 	<ul style="list-style-type: none"> • Describe the relationship 	<ul style="list-style-type: none"> • Test the hypothesis of independence
<ul style="list-style-type: none"> • Identify measurement levels 	<ul style="list-style-type: none"> • Test the hypothesis of independence 	<ul style="list-style-type: none"> • Assumptions
Describing individual variables	<ul style="list-style-type: none"> • Assumptions 	<ul style="list-style-type: none"> • Treatment of missing values
<ul style="list-style-type: none"> • Chart individual variables 	<ul style="list-style-type: none"> • Identify differences between the groups 	Predicting a scale variable: Regression
<ul style="list-style-type: none"> • Summarize individual variables 	<ul style="list-style-type: none"> • Measure the strength of the association 	<ul style="list-style-type: none"> • Explain linear regression
<ul style="list-style-type: none"> • Identify the normal distribution 	Testing on the difference between two group means	<ul style="list-style-type: none"> • Identify unstandardized and standardized coefficients
<ul style="list-style-type: none"> • Identify standardized scores 	<ul style="list-style-type: none"> • Chart the relationship 	<ul style="list-style-type: none"> • Assess the fit
Testing hypotheses	<ul style="list-style-type: none"> • Describe the relationship 	<ul style="list-style-type: none"> • Examine residuals
<ul style="list-style-type: none"> • Principles of statistical testing 	<ul style="list-style-type: none"> • Test the hypothesis of two equal group means 	<ul style="list-style-type: none"> • Include 0-1 independent variables
<ul style="list-style-type: none"> • One-sided versus two-sided testing 	<ul style="list-style-type: none"> • Assumptions 	<ul style="list-style-type: none"> • Include categorical independent variables
<ul style="list-style-type: none"> • Type I, type II errors and power 	Testing on differences between more than two group means	Introduction to Bayesian statistics
Testing hypotheses on individual variables	<ul style="list-style-type: none"> • Chart the relationship 	<ul style="list-style-type: none"> • Bayesian statistics and classical test theory
<ul style="list-style-type: none"> • Identify population parameters and sample statistics 	<ul style="list-style-type: none"> • Describe the relationship 	<ul style="list-style-type: none"> • The Bayesian approach
<ul style="list-style-type: none"> • Examine the distribution of the sample mean 	<ul style="list-style-type: none"> • Test the hypothesis of all group means being equal 	<ul style="list-style-type: none"> • Evaluate a null hypothesis
<ul style="list-style-type: none"> • Test a hypothesis on the population mean 	<ul style="list-style-type: none"> • Assumptions 	<ul style="list-style-type: none"> • Overview of Bayesian procedures in IBM SPSS Statistics
<ul style="list-style-type: none"> • Construct confidence intervals 	<ul style="list-style-type: none"> • Identify differences between the group means 	Overview of multivariate procedures
<ul style="list-style-type: none"> • Tests on a single variable 	Testing on the relationship between scale variables	<ul style="list-style-type: none"> • Overview of supervised models
Testing on the relationship between categorical variables	<ul style="list-style-type: none"> • Chart the relationship 	<ul style="list-style-type: none"> • Overview of models to create natural groupings

Further Information:

For More information, or to book your course, please call us on 00 20 (0) 2 2269 1982 or 16142

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