



Enterprise Computing Solutions - Education Services

## TRAINING OFFERING

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# Advanced Statistical Analysis Using IBM SPSS Statistics (V25) SPVC

CODE:	LENGTH:	PRICE:
0K09AG	2 days	\$600.00

## Description

This course provides an application-oriented introduction to advanced statistical methods available in IBM SPSS Statistics. Students will review a variety of advanced statistical techniques and discuss situations in which each technique would be used, the assumptions made by each method, how to set up the analysis, and how to interpret the results. This includes a broad range of techniques for predicting variables, as well as methods to cluster variables and cases.

**Contains** PDF course guide, as well as a lab environment where students can work through demonstrations and exercises at their own pace.

If you are enrolling in a Self Paced Virtual Classroom or Web Based Training course, before you enroll, please review the Self-Paced Virtual Classes and Web-Based Training Classes on our Terms and Conditions page, as well as the system requirements, to ensure that your system meets the minimum requirements for this course. <http://www.ibm.com/training/terms>

## Objectives

- Introduction to advanced statistical analysis
- Group variables: Factor Analysis and Principal Components Analysis
- Group similar cases: Cluster Analysis
- Predict categorical targets with Nearest Neighbor Analysis
- Predict categorical targets with Discriminant Analysis
- Predict categorical targets with Logistic Regression
- Predict categorical targets with Decision Trees
- Introduction to Survival Analysis
- Introduction to Generalized Linear Models
- Introduction to Linear Mixed Models

## Audience

Anyone who works with IBM SPSS Statistics and wants to learn advanced statistical procedures to be able to better answer research questions.

## Prerequisites

- Experience with IBM SPSS Statistics (navigation through windows; using dialog boxes)
- Knowledge of statistics, either by on the job experience, intermediate-level statistics oriented courses, or completion of the Statistical Analysis Using IBM SPSS Statistics (V25) course.

## Programme

#### Introduction to advanced statistical analysis

- Taxonomy of models
- Overview of supervised models
- Overview of models to create natural groupings

#### Group variables: Factor Analysis and Principal Components Analysis

- Factor Analysis basics
- Principal Components basics
- Assumptions of Factor Analysis
- Key issues in Factor Analysis
- Improve the interpretability
- Use Factor and component scores

#### Group similar cases: Cluster Analysis

- Cluster Analysis basics
- Key issues in Cluster Analysis
- K-Means Cluster Analysis
- Assumptions of K-Means Cluster Analysis
- TwoStep Cluster Analysis
- Assumptions of TwoStep Cluster Analysis

#### Predict categorical targets with Nearest Neighbor Analysis

- Nearest Neighbor Analysis basics
- Key issues in Nearest Neighbor Analysis
- Assess model fit

#### Predict categorical targets with Discriminant Analysis

- Discriminant Analysis basics
- The Discriminant Analysis model
- Core concepts of Discriminant Analysis
- Classification of cases
- Assumptions of Discriminant Analysis
- Validate the solution

#### Predict categorical targets with Logistic Regression

- Binary Logistic Regression basics
- The Binary Logistic Regression model
- Multinomial Logistic Regression basics
- Assumptions of Logistic Regression procedures
- Testing hypotheses

#### Predict categorical targets with Decision Trees

- Decision Trees basics
- Validate the solution
- Explore CHAID
- Explore CRT
- Comparing Decision Trees methods

#### Introduction to Survival Analysis

- Survival Analysis basics
- Kaplan-Meier Analysis
- Assumptions of Kaplan-Meier Analysis
- Cox Regression
- Assumptions of Cox Regression

#### Introduction to Generalized Linear Models

- Generalized Linear Models basics
- Available distributions
- Available link functions

#### Introduction to Linear Mixed Models

- Linear Mixed Models basics
- Hierarchical Linear Models
- Modeling strategy
- Assumptions of Linear Mixed Models

## Session Dates

Date	Location	Time Zone	Language	Type	Guaranteed	PRICE
13 Aug 2022			English	Self Paced Training		\$600.00

### Additional Information

This training is also available as onsite training. [Please contact us to find out more.](#)