Contact:
Info@silverlake.sg
+65 - 65882456

Advanced Statistical Analysis Using IBM SPSS Statistics (V25)

Course#:0G09AG
Duration:2 Days
Price:1800.00

Course 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.

ContainsPDF 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

Learning Journeys that reference this course:

Data Science
iBM SPSS Statistics V25.x
Machine Learning
Build Machine Learning

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.

Content

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
- Hierachical Linear Models
- Modeling strategy
- Assumptions of Linear Mixed Models