



**Enterprise Computing Solutions - Education Services**

## **TRAINING OFFERING**

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# Introduction to Machine Learning Models Using IBM SPSS Modeler (V18.2)

CODE:	LENGTH:	PRICE:
0E079G	16 Hours	£755.00

## Description

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

This course provides an introduction to supervised models, unsupervised models, and association models. This is an application-oriented course and examples include predicting whether customers cancel their subscription, predicting property values, segment customers based on usage, and market basket analysis.

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 machine learning models  
Taxonomy of machine learning models  
Identify measurement levels  
Taxonomy of supervised models  
Build and apply models in IBM SPSS Modeler  
Supervised models: Decision trees - CHAID  
CHAID basics for categorical targets  
Include categorical and continuous predictors  
CHAID basics for continuous targets  
Treatment of missing values  
Supervised models: Decision trees - C&R Tree  
C&R Tree basics for categorical targets  
Include categorical and continuous predictors  
C&R Tree basics for continuous targets  
Treatment of missing values  
Evaluation measures for supervised models  
Evaluation measures for categorical targets  
Evaluation measures for continuous targets  
Supervised models: Statistical models for continuous targets - Linear regression  
Linear regression basics  
Include categorical predictors  
Treatment of missing values  
Supervised models: Statistical models for categorical targets - Logistic regression  
Logistic regression basics  
Include categorical predictors  
Treatment of missing values  
Association models: Sequence detection  
Sequence detection basics  
Treatment of missing values  
Supervised models: Black box models - Neural networks  
Neural network basics  
Include categorical and continuous predictors  
Treatment of missing values  
Supervised models: Black box models - Ensemble models  
Ensemble models basics  
Improve accuracy and generalizability by boosting and bagging  
Ensemble the best models  
Unsupervised models: K-Means and Kohonen  
K-Means basics  
Include categorical inputs in K-Means  
Treatment of missing values in K-Means  
Kohonen networks basics  
Treatment of missing values in Kohonen  
Unsupervised models: TwoStep and Anomaly detection  
TwoStep basics  
TwoStep assumptions  
Find the best segmentation model automatically  
Anomaly detection basics  
Treatment of missing values  
Association models: Apriori  
Apriori basics  
Evaluation measures  
Treatment of missing values  
Preparing data for modeling  
Examine the quality of the data  
Select important predictors  
Balance the data

## Audience

- Data scientists
- Business analysts
- Clients who want to learn about machine learning models

## Prerequisites

- Knowledge of your business requirements

## Programme

Introduction to machine learning modelsTaxonomy of machine learning modelsIdentify measurement levels  
Taxonomy of supervised modelsBuild and apply models in IBM SPSS ModelerSupervised models: Decision trees - CHAID  
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Apriori basicsEvaluation measuresTreatment of missing valuesPreparing data for modelingExamine the quality of the data  
Select important predictorsBalance the data

## Session Dates

On request. Please [Contact Us](#)

## Additional Information

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