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

**Duration: 2 Days      Course Code: 0A079G      Delivery Method: Virtual Learning**

## Overview:

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.

Virtual Learning

This interactive training can be taken from any location, your office or home and is delivered by a trainer. This training does not have any delegates in the class with the instructor, since all delegates are virtually connected.  Virtual delegates do not travel to this course, Global Knowledge will send you all the information needed before the start of the course and you can test the logins.

## Target Audience:

Data scientistsBusiness analystsClients who want to learn about machine learning models

## Objectives:

■ Please refer to course overview

## Prerequisites:

■ Knowledge of your business requirements

## Content:

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

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

Association models: Sequence detection

Sequence detection basics

Treatment of missing values

Preparing data for modeling

Examine the quality of the data

Select important predictors

Balance the data

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## Further Information:

For More information, or to book your course, please call us on Head Office 01189 123456 / Northern Office 0113 242 5931

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