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

**Duration: 2 Days**    **Course Code: 0A079G**

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### 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.

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### Target Audience:

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

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### Objectives:

- Please refer to course overview
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### Prerequisites:

- Knowledge of your business requirements
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## Content:

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

## 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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