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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:

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|--|---|--|
| 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 00 966 92000 9278

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