



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

Duration: 2 Days Course Code: 0A079G Delivery Method: Company Event

#### 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.

Company Events

These events can be delivered exclusively for your company at our locations or yours, specifically for your delegates and your needs. The Company Events can be tailored or standard course deliveries.

### **Target Audience:**

Data scientists Business analysts Clients 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  | 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 -<br>Neural networks                            | Treatment of missing values                        |
| CHAID basics for continuous targets  |   |  |
| Treatment of missing values  | Neural network basics   | Association models: Apriori                        |
| Supervised models: Decision trees - C&R Tree                                     | Include categorical and continuous predictors                                       | Apriori basics                                     |
| C&R Tree basics for categorical targets  | Treatment of missing values   | Evaluation measures                                |
| Include categorical and continuous predictors                                    | Supervised models: Black box models -<br>Ensemble models                            | Treatment of missing values                        |
| C&R Tree basics for continuous targets   | Ensemble models basics  | Association models: Sequence detection             |
| Treatment of missing values  | Improve accuracy and generalizability by boosting and bagging                       | Sequence detection basics                          |
| Evaluation measures for supervised models  | Ensemble the best models  | Treatment of missing values                        |
| Evaluation measures for categorical targets                                      | Zincombio uno sectimodolo   | Preparing data for modeling                        |
| Evaluation measures for continuous targets                                       | Unsupervised models: K-Means and Kohonen  | Examine the quality of the data                    |
|  | K-Means basics  | Select important predictors                        |
| Supervised models: Statistical models for continuous targets - Linear regression | Include categorical inputs in K-Means   | Balance the data                                   |
| Linear regression basics   | Treatment of missing values in K-Means  |  |
|  | 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  $\underline{info@globalknowledge.co.uk}$ 

www.globalknowledge.com/en-gb/

Global Knowledge, Mulberry Business Park, Fishponds Road, Wokingham Berkshire RG41 2GY UK