

### **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 €855.00

#### **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 modelsTaxonomy of machine learning modelsIdentify measurement levels
Taxonomy of supervised modelsBuild and apply models in IBM SPSS ModelerSupervised models: Decision trees - CHAID
CHAID basics for categorical targetsInclude categorical and continuous predictorsCHAID basics for continuous targets
Treatment of missing valuesSupervised models: Decision trees - C&R TreeC&R Tree basics for categorical targets
Include categorical and continuous predictorsC&R Tree basics for continuous targetsTreatment of missing values
Evaluation measures for supervised modelsEvaluation measures for categorical targetsEvaluation measures for continuous targets
Supervised models: Statistical models for continuous targets - Linear regressionLinear regression basics
Include categorical predictorsTreatment of missing values

Supervised models: Statistical models for categorical targets - Logistic regressionLogistic regression basics Include categorical predictorsTreatment of missing valuesAssociation models: Sequence detectionSequence detection basics Treatment of missing valuesSupervised models: Black box models - Neural networksNeural network basics Include categorical and continuous predictorsTreatment of missing values

Supervised models: Black box models - Ensemble modelsEnsemble models basics Improve accuracy and generalizability by boosting and baggingEnsemble the best models

Unsupervised models: K-Means and KohonenK-Means basicsInclude categorical inputs in K-Means

Treatment of missing values in K-MeansKohonen networks basicsTreatment of missing values in Kohonen

 $\label{thm:constraint} Unsupervised \ models: Two Step \ and \ Anomaly \ detection Two Step \ basics Two Step \ assumptions$ 

Find the best segmentation model automaticallyAnomaly detection basicsTreatment of missing valuesAssociation models: Apriori Apriori basicsEvaluation measuresTreatment of missing valuesPreparing data for modelingExamine the quality of the data Select important predictorsBalance 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
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#### **Session Dates**

On request. Please contact us

#### **Additional Information**

This training is also available as onsite training. Please contact us to find out more.