## WUW

### **Enterprise Computing Solutions - Education Services**

## **TRAINING OFFERING**

You can reach us at:

Arrow ECS, Woluwedal 30, 1932 Sint-Stevens-Woluwe

Email: education.ecs.benelux@arrow.com Phone: +32 2 332 19 57

# 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 applicationoriented 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 targets Evaluation measures for supervised modelsEvaluation measures for categorical targetsEvaluation measures 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

Unsupervised models: TwoStep and Anomaly detection TwoStep basics TwoStep 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 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 Unsupervised models: TwoStep and Anomaly detectionTwoStep basicsTwoStep 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

#### **Session Dates**

Date	Location	Time Zone	Language	Туре	Guaranteed	PRICE
20 Apr 2024			English	Self Paced Training		€855.00

#### Additional Information

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