



**Arrow ECS Finland Oy - Education Services**

## **TRAINING OFFERING**

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**You can reach us at:**

Arrow ECS Finland Oy, Lars Sonckin kaari 16, 02600 Espoo, Finland

Email: [education.ecs.fi@arrow.com](mailto:education.ecs.fi@arrow.com)

Phone: 0870 251 1000



# Introduction to Time Series Analysis Using IBM SPSS Modeler (v18.1.1)

CODE:	LENGTH:	PRICE:
0A028G	1 day(s)	€780.00

## Description

This course gets you up and running with a set of procedures for analyzing time series data. Learn how to forecast using a variety of models, including regression, exponential smoothing, and ARIMA, which take into account different combinations of trend and seasonality. The Expert Modeler features will be covered, which is designed to automatically select the best fitting exponential smoothing or ARIMA model, but you will also learn how to specify your own custom models, and also how to identify ARIMA models yourself using a variety of diagnostic tools such as time plots and autocorrelation plots.

## Objectives

Introduction to time series analysis  
Automatic forecasting with the Expert Modeler  
Measuring model performance  
Time series regression  
Exponential smoothing models  
ARIMA modeling

## Audience

Roles: Business Analyst, Data Scientist  
Specifically, this is an introductory course for:  
• Anyone who is interested in getting up to speed quickly and efficiently using the IBM SPSS Modeler forecasting capabilities

## Prerequisites

• Familiarity with the IBM SPSS Modeler environment (creating, editing, opening, and saving streams).  
• General knowledge of regression analysis is recommended but not required

## Programme

1: Introduction to time series analysis  
• Explain what a time series analysis is  
• Describe how time series models work  
• Demonstrate the main principles behind a time series forecasting model  
2: Automatic forecasting with the Expert Modeler  
• Examine fit and error  
• Examine unexplained variation  
• Examine how the Expert Modeler chooses the best fitting time series model  
3: Measuring model performance  
• Discuss various ways to evaluate model performance  
• Evaluate model performance of an ARIMA model  
• Test a model using a holdout sample  
4: Time series regression  
• Use regression to fit a model with trend, seasonality and predictors  
• Handling predictors in time series analysis  
• Detect and adjust the model for autocorrelation  
• Use a regression model to forecast future values  
5: Exponential smoothing models  
• Types of exponential smoothing models  
• Create a custom exponential smoothing model  
• Forecast future values with exponential smoothing  
• Validate an exponential smoothing model with future data  
6: ARIMA modeling  
• Explain what ARIMA is  
• Learn how to identify ARIMA model types  
• Use sequence charts and autocorrelation plots to manually identify an ARIMA model that fits the data  
• Check your results with the Expert Modeler

## Further Information

Prior to enrolling, IBM Employees must follow their Division/Department processes to obtain approval to attend this public training class. Failure to follow Division/Department approval processes may result in the IBM Employee being personally responsible for the class charges.

GBS practitioners that use the EViTA system for requesting external training should use that same process for this course. Go to the EViTA site to start this process:

<http://w3.ibm.com/services/gbs/evita/BCSVTEenrl.nsf>

Once you enroll in a GTP class, you will receive a confirmation letter that should show:

- The current GTP list price
- The 20% discounted price available to IBMers. This is the price you will be invoiced for the class.

## **Session Dates**

Aikataulutamme kiinnostuksen mukaan.

## **Additional Information**

[This training is also available as onsite training. Please contact us to find out more.](#)