



Become an operational statistician with XLSTAT-Base, 3-day training

Prerequisites

Basic experience in using Excel

Program

Introduction

- A couple of definitions: individuals, variables, sample, population
- Making your dataset ready for analysis

Describing data:

- Quantitative variables: mean, standard deviation, variance, median, quartiles, Histograms, box plots, scatter plots
- Qualitative variables: frequencies, mode, bar chart, cross tab

Exploring large data sets:

- Reducing dimensionality: principal component analysis, correspondence analysis
- Segmenting data: agglomerative hierarchical clustering, k-means

Hypothesis testing

- Defining the null hypothesis, the p-value and error risks
- Parametric tests assumptions
- Parametric tests vs nonparametric tests
- One-tailed tests vs two-tailed tests

Modeling data

- Linear regression
- One-way ANOVA and multiple comparisons
- Multi-way ANOVA and interaction effects
- ANCOVA

Machine learning

- Supervised vs unsupervised learning
- Introduction to some supervised machine learning techniques

Deploying R procedures in Excel

- Overviewing the XLSTAT-R code infrastructure