Statistics & Multivariate analysis with **XLSTAT Basic+**

Description

This training goes through most commonly used data analysis methods in a wide variety of fields including research, biostatistics, marketing, sensometrics, finance and industry. The course offers conceptual and intuitive approaches to descriptive statistics, multivariate data analysis, tests, modeling as well as machine learning. Methods are illustrated with many examples and implementations in XLSTAT Basic+, including a thorough interpretation of results. Participants are also given time to practice on real data provided by the trainer.

At the end of the training, participants are able to quickly find and implement appropriate statistical methods to answer their own data-related questions, using XLSTAT Basic+.

Objectives

Learn how to describe and visualize data, run hypothesis testing and build statistical models using XLSTAT Basic+

Pre-requisites

Basic experience in using Microsoft Excel®.

Program

Introduction:

- Definitions: observations, 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
- Independent vs paired samples

Modeling data:

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

Machine learning:

- Introduction to Machine Learning for prediction

Terms and rate

- 3-day training (21h total)
- 1580 $ per person
- Possibility of making private sessions from 3 participants minimum
- Virtual class (GoToMeeting, Google meet..) or in person in your office (trainer's travel expenses are charged in addition)
- Flexible dates depending on the availability of the trainer and your schedule

Your trainer:
Jean-Paul Maalouf (subject to availability)

Contact

01.70.06.04.88

training@xlstat.com

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