Microsoft Excel – Data Analysis and Statistic Calculations

Course code: MSEXST1

At the course participants meet advanced data analysis methods. All standard statistical - analytic functions are discussed especially the Analysis ToolPack Add-Inn which is used for demanding statistical analyses. Listeners learn how to work with tools such as a descriptive statistics, a properties correlation, a values prediction and a work with time series. The course also focuses on clear interpretation of found results.

Who is the course for

The course is for experienced users who work with data and want to analyze them. Participants meet advanced MS Excel 2007 tools.

What we teach you

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Required skills

Excellent knowledge of MS Excel. Participants should be able to work with functions, formulas and they should have an idea about data analysis principles.

Course Outline

Analysis of extensive data volumes by helping PivotTable (PT) and PivotTable Chart Report.
- PT creation principles
- Total functions in PT
- Build-in functions for different data views in PT
- Calculated fields and items
- Data analysis and data understanding in PT

Basic data analysis
- Frequency analysis
- Histogram - frequency chart
- Level characteristics (Mean, Median, Mode, Quantity)
- Variable characteristics (Variance, Deviation)
- Shape allocation characteristics (Kurtosis, Skewness)

Dependence analysis
- Correlation
- Regression analysis (appropriate regression model, comparison of two different alternatives, judgment of regression model quality, estimates based on chosen regression model
- Graphic dependence analysis
- Multi regression (more independent variables)

Time series analysis
- Time series characteristics
- Basic time series description (differences, growth speed - chain, indexes)
- Time series modeling
- Time series decomposition (trend, seasonal, cyclic, random item of time series)
- Time series purge of seasonal component (moving average)
- Estimates based on time series model

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