Data analysis with Excel for chemical- and bioengineers

Learn how to design experiments and how to perform the correct analyzes with your experimental data. In this training we show you how to do that in Excel. Thus, you do not need to learn a new complex software but can use the tools you are already used to.

What you will learn

- How to use Excel as a tool for statistical data analysis.
- How to interpret statistical hypothesis tests.
- How to efficiently minimize experimental effort while optimizing results through design of experiments (DoE).
- How to keep an eye on chemical and biological processes through (statistical) process control.
- How to extract useful information out of multivariate data sets.

Your benefits

After the training you have a solid background about common statistical analysis methods. You know how to use Excel to solve your own practical problems. You are confident to report statistical results and communicate potential time and raw material savings due to DoE. The training is done in tiny individual groups where you can work on your own data sets.

We offer the training in **English** or **German**, It's your choice.

"Optimize your processes and results by using the right tools and statistical analysis methods."

DATA ANALYSIS TOOLS

How does the schedule look like?

Introduction

Learn how to perform different calculations (e. g. scalar and matrix calculations) in Excel

Learn other basics from data preprocessing and how to use the Solver in Excel

Basic statistical concepts

Data exploration

Hypothesis testing (F-test, t-test, ANOVA & Co.)

Data modelling and prediction (linear and non-linear regression analysis)

Multivariate data analysis

Multivariate calibration

Principal component analysis and regression

Cluster analysis and distance-based classifications (k-next-neighbors etc.)

Support-vector machine classification

Introduction to artificial neural networks

Design of experiments (DoE)

Introduction to various kinds of experimental designs

Factor effects, Regression analysis, Significance of effects and coefficients

Response surface modelling and analysis

Simplex optimization

Who should join the training?

Chemical- / Process- / Bioengineers or natural scientists who are responsible for experimental planning, optimization or quality assurance.

Where does the training take place?

We will do the training in the beautiful black forest region in the south-west of Germany. The exact location will be announced a few weeks before the start of the course.

When does the training take place?

An effective training will last for three days and can be booked on demand.

How much does the training course cost?

The course fee is 1400 € and includes coffee and snacks as well as lunch for the training days. I promise you will love it.

Who we are

We are a team of passionate scientists with a strong dedication to bring even tiniest pieces of information to the surface by data analysis.

Contact

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Are you interested in joining the training? Simply contact us and get a quote.

Contact us