



**STATCON**

Statistik: Consulting - Training - Software

A large, stylized white 'V' shape is centered on the page, framing a photograph of a city skyline at dusk. The city buildings are illuminated with lights, and the sky is a mix of blue and orange. The 'V' shape is formed by two large, dark blue triangles meeting at a point at the bottom center.

**trainings  
2020**



Statistik: Consulting - Training - Software

No matter whether you wish to get to know the power of your just purchased statistic software or whether you wish to refresh your statistical basics - STATCON offers you the adequate training. Courses help you to become an expert in your chosen software.

Our consultants are in close contact with the manufacturers and work with the software every day to carry out projects.

The focus is on a mix of theory and practice, important statistical basics will be discussed without losing sight of the practical reference.

The training courses are offered in-house and public.

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Using Design Expert you can make groundbreaking improvements to your product and your process. Search for important factors and components, characterize interactions and, ultimately, you will achieve optimal process settings and product recipes. Set markers and explore contours in interactive diagrams. Then visualize the effects from all angles with rotatable 3D diagrams. Finally, maximize the desirability of all your answers at the same time and put them on top of each other, as to see if the “sweet spot” meets all specifications.



## DoE (Design of Experiments)

In a very user-friendly environment, Design Expert offers the latest technology for the planning process and the analysis of experiments. Design Expert goes through the classic stages of experimental design, Screening, Optimization (RSM) and Validation. At the same time, the program offers the necessary flexibility to handle even complex problems. Hence, Design Expert enables you to save time and cost for the development of new products and at the same time to achieve the best process settings.

## Introduction to DoE (Design of Experiments)

- Introduction and workflow of Design of Experiments
- Statistical tools: hypothesis testing and regression
- Screening experiments: Full Factorial and Fractional Factorial Designs
- more screening topics: Blocking, Power Analysis, Centerpoints

Dates:

- 11.-12.02.2020 Berlin
- 20.-21.04.2020 Köln
- 29.-30.06.2020 Hamburg
- 17.-18.09.2020 München
- 25.-26.11.2020 Dresden

## Process Optimization with Design Expert – RSM

- Introduction to the RSM methodology
- Classic RSM Designs: CCD, Box-Behnken
- Optimization of several responses
- Optimal Designs
- Robustness

Dates:

- 02.-03.03.2020 Köln
- 12.-13.05.2020 München
- 28.-29.09.2020 Dresden
- 07.-08.12.2020 Berlin

## Optimization of Formulations with Mixture Designs

- Introduction to Mixtures and Scheffé polynomials
- Classic Mixture Designs: Simplex Lattice Designs, Augmentation
- Optimal Mixture Designs
- Screening Designs for Mixtures
- Combined Designs – Joint optimization of process factors and Mixture components

Dates:

- 04.-05.03.2020 Köln
- 14.-15.05.2020 Leipzig
- 08.-09.10.2020 Hamburg
- 09.-10.12.2020 Berlin

With GraphPad Prism, data from experiments can be very easily organized, analyzed and graphically presented. Even with little knowledge you can perform complex statistical tests, interpret and visualize the results.



## Life Science

GraphPad Prism is a powerful combination of biostatistics, dose response -curves (non-linear regression) and scientific graphics in a compact program. You can easily organize and analyze your experiments and create graphics. You can find the appropriate statistical test, interpret results and adapt reports and graphs to your needs, e.g. for publications without much effort. GraphPad Prism should be in any lab!

## Introduction to GraphPad Prism

- Structure of Prism and workflow
- Data import
- Create and edit graphics
- Introduction to Statistics with Prism (as needed)
  - comparisons of means
  - One way and two-way ANOVA
  - Basics of Regression Analysis
  - Contingency tables
  - Survival analysis
- Automation: templates and methods

Dates: • 03.-04.02.2020 Dortmund • 20.-21.10.2020 Halle  
• 04.-05.06.2020 München

## Creating graphics with GraphPad Prism

- Prism Basics
- Reliable handling of the Prism user interface
- Data handling in Prism
- Creating descriptive statistics as a table
- Creating and designing graphics in Prism
- Designing the appearance of graphics
- Bar-u. Scatterplots for Column/Grouped/Contingency/Survival projects

Dates: • 11.-12.03.2020 Göttingen • 29.-30.09.2020 Hannover  
• 18.-19.05.2020 München

## Regression with GraphPad Prism

- Statistical basics of Regression
- Reliable handling of the Prism user interface - Regression projects
- Linear Regression and nonlinear Regression
- Data handling in Prism
- Interpretation of the statistical measures and summary of the important results in layouts

Dates: • 23.-24.03.2020 Würzburg • 05.-06.11.2020 Köln  
• 08.-09.06.2020 Potsdam

EViews is still - due to the combination of performance and usability - the ideal package for all those working with time series, cross-sectional or longitudinal data. With EViews you always have a modern, user-friendly and very practical statistical tool at hand.



## Econometrics

With EViews you can manage your data quickly and efficiently, perform econometric and statistical analyzes, create predictions or run simulations and create graphs and tables of high quality for publication or inclusion in other applications.

## Introduction to EViews

- Basic functions in EViews
- Answer econometric questions with statistical hypothesis tests
- Perform simple, multiple and nonlinear regression
- Check the assumption of your analyzes
- Set up and analyze stationary time series models

Dates: • 18.-19.02.2020 Berlin • 30.09.-01.10.2020 Berlin  
• 20.-21.07.2020 Frankfurt

## Basics of EViews-programming

- Automatic data import
- Overview of objects and commands
- Loops and conditions
- Databases and links
- Matrices and vectors
- Working with graphics

Dates: • 27.02.2020 Potsdam • 09.10.2020 Berlin

## Complex econometrics models with EViews

- AR, MA, ARMA and ARIMA models
- ARDL - dynamic regression models
- multi-equation models
- VAR and VEC models
- ARCH and GARCH models

Dates: • 18.-19.03.2020 Stuttgart • 07.-08.10.2020 Berlin



The software JMP is an all-rounder in the field of statistics. JMP is quickly learned and easy to use, even if you are not a statistician or programmer. No matter whether you are a well-trained technical user or have no experience in dealing with statistical software yet, JMP is intuitive, flexible and interactive with a short learning curve.



## General statistics

Especially helpful for unexperienced users is that every statistical procedure (from the simple t-test to the complex lifetime analysis) is coupled with a graphical presentation. This makes it easy for new users to quickly make sense of the result. For advanced users, JMP offers many possibilities both in the field of statistics as well as in the field of programming using the scripting language JSL, which makes automation very easy.



## Intro of Statistical Data Analysis with JMP – JCSA

- Import data from different sources
- Navigate the software
- Use the column and rows menu efficiently
- Create new tables with statistical measures
- Use graphical and exploratory data analysis
- Export results and write reports

Dates Heidelberg: • 21.01.2020 • 21.04.2020 • 28.07.2020 • 3.11.2020

## ANOVA and Regression with JMP - JANR

- Exploratory data analysis
- Establish and understand hypothesis tests
- Perform simple, pairwise or independent t-tests
- Interpret one-factorial and multi-factorial ANOVA
- Generating simple and multiple regression analyzes and checking their assumption

Dates Heidelberg: • 22.-23.01.2020 • 29.-30.07.2020  
• 22.-23.04.2020 • 04.-05.11.2020

## Scripting with JMP - JSCR

- Scripting concepts
- Save scripts in the table panel
- Operators, numbers and names, lists and expressions
- Functions: For, For Each Row, If, Match and Choose
- Scripts for data tables, new tables and columns, column properties
- Scripts for platforms, platform levels (analysis and report) and user-defined windows
- Dialog and list boxes, data structures, evaluations and results
- Packaging scripts, generic arguments

Dates Heidelberg: • 05.-06.02.2020 • 20.-21.08.2020  
• 07.-08.05.2020 • 25.-26.11.2020



## Data Science

The open-source programming language R is a modern framework, and jackknife in the toolbox of every modern Data Scientist. You can very easily succeed in connecting to databases, analyzing large and unstructured data and in visualizing with platform-independent web applications with R.



## Data Science

The application spectrum for R ranges from finance to biometrics up to Big Data use-cases. Leading researchers and technology companies contribute to the continuous development of R, thus making sure that state-of-the-art technology is available for everybody.



## Exploratory Data Analysis and linear models with R

- Data import, data management and descriptive statistics with dplyr
- Graphic design with ggplot2
- Statistical hypothesis tests
- Comparison of groups (ANOVA)
- Linear Regression

Dates: • 16.-17.03.2020 Göttingen • 06.-07.08.2020 Würzburg

## Multivariate Analyses and Datamining with R

- Unsupervised Learning: Searching for Structures (Clustering)
- Supervised Learning: Creating forecasting models
- Discriminant analysis: canonical, linear and quadratic
- Principal component and factor analysis, cluster analysis, PLS
- Structural equation models, path-diagrams and model structure, latent variables

Dates: • 24.-25.03.2020 Erfurt • 04.-05.08.2020 Jena

## Shiny and Reporting with R

- Overview of Reproducible Research with R (Sweave, Knitr, Markdown)
- Create simple reports with knitr and RStudio
- Create simple reports with Markdown and RStudio
- Customization of reports and graphics
- Export formats (HTML, PDF)

Dates: • 02.-03.04.2020 Heidelberg • 05.-06.10.2020 München

### further trainings

software	topic	dates
Minitab	Data-, Reliability- Quality analysis	on request
Excel	Evaluate measured data for engineers	on request
Excel	Basics of general statistics	on request
JMP / Prism / XLSTAT / R / Sigmaplot	Biometrics/Statistics in life science	on request

We offer our application-related software trainings either as personalized in-house trainings directly at your office or as open trainings in our office. For in-house trainings please contact our sales team at [vertrieb@statcon.de](mailto:vertrieb@statcon.de) and arrange a telephone call with one of our consultants. This way, we can fit the training perfectly to your needs. You can also provide us with data from your previous analyzes, so they can directly be discussed and analyzed in the class.



Bertram  
Schäfer  
CEO  
member  
DAGStat  
DGQ  
ENBIS



„Learning a software is not always easy. Therefore, we regularly organize open trainings. In a pleasant atmosphere with a maximum of 12 participants you do not only get to know the software, but you also discuss statistical procedures which are crucial for your practical application. You can also book inhouse-trainings, the contents of these trainings would then be coordinated with your learning targets. Our interdisciplinary coaching staff consists of professionals in the fields of Statistics, Mathematics, Industrial Statistics, Six Sigma, Life Science and Social-, Economic-and Agricultural Sciences.

Do you have larger projects in mind?

STATCON’s consulting team supports you in the evaluation of complex data sets, the implementation of new features or setting up automation solutions (e.g. automated data import) with the software of your choice.

The consulting team of STATCON combines decades of experience, performing data mining-, SPC- and DoE projects as well as individual advice in all areas of statistics. STATCON also offers consulting packages that guarantee your questions will be answered timely, personally and thoroughly.“

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