

Production and Logistics

Business Forecasting

Module objectives and intended study results:

The students

- ▶ understand the importance of data analysis for business forecasting,
- ▶ select appropriate forecasting methods in a given context and solve real-life forecasting problems using the software package R and RStudio,
- ▶ are encouraged and empowered to work independently and self-reliantly to solve forecasting problems,
- ▶ develop solutions to small case studies in teams and present their results.

Contents:

Business Forecasting is a challenging process demanding a structured approach. It requires creative thinking and the ability to make appropriate use of the information available, experience of others, and technical arguments to create a computer-based forecasting system that allows management to plan effectively. In this class, we cover various approaches of forecasting: extrapolative methods, causal models, and judgmental methods. We work on real data to develop an understanding, e.g. when to choose which approach and how to deal with outlier data, and we learn how to use computer programs in the forecasting process.

R tutorials are supported by > DataCamp (<https://www.datacamp.com/>), an intuitive learning platform for data science and analytics. Learn anytime, anywhere and become an expert in R, Python, SQL, and more. DataCamp's learn-by-doing methodology combines short expert videos and hands-on-the-keyboard exercises to help learners retain knowledge. DataCamp offers 350+ courses by expert instructors on topics such as importing data, data visualization, and machine learning. They're constantly expanding their curriculum to keep up with the latest technology trends and to provide the best learning experience for all skill levels.

Language: English

Credits:

- ▶ See the LSF (you need to search for this class)

Previous Knowledge:

The contents of one of the following modules are recommended:

- ▶ Math and Statistics classes
 - ▶ Discrete and continuous random variables, probability distributions, PDFs, CDFs
 - ▶ Frequency tables, expected value, variance, standard deviation, quantiles
 - ▶ Normal Distribution
 - ▶ Estimation and Confidence Intervals
 - ▶ Hypothesis tests and p-values
 - ▶ Basic Linear Regression

Credits towards Electives in Master programs:

- ▶ See the LSF (you need to search for this class)

Registration: Not required.

Next time offered in: currently not planned