Lehrstuhl für Finanzmathematik
Fakultät für Mathematik
Technische Universität München

Announcement SoSe 2021
Lecture in Mathematical Finance

Statistics for Business Administration

Prof. Dr. Rudi Zagst

Area / ModulNr.: Statistics / MA9712

Course Structure: Lecture: 3h Exercises: 1h Programming Exercises: 1h

Content: Introduction to Data: measures of location and variation, graphical representation, experiments, sampling strategies, measures of association for bivariate data.

Probability calculus: examples of discrete and continuous probability distributions, conditional probabilities, stochastic independence, random variables and their distribution functions and moments, conditional distributions.

Statistical inference: confidence intervals, hypothesis tests, basic ideas of multiple linear regression.

Introduction to the statistical software package R and guidance on how to perform simple statistical analyses in R.

Audience: Bachelor BWL, Bachelor WI

Prerequisite: MA9711 (Mathematics in Natural and Economic Science 1)

Literature:

Caputo, A., Fahrmeir, L., Künster, R., Lang, S., Pigeot, I., Tutz, G (2009): Arbeitsbuch Statistik. Springer.
Cramer, E., Kamps, U. (2007): Grundlagen der Wahrscheinlichkeitsrechnung und Statistik, Springer.
Diesz, D., Barr, C., and Cetinkaya-Rundel, M. (2015): OpenIntro Statistics, 3rd edition, https://www.openintro.org/stat/textbook.php
Fahrmeir, L., Künster, R., Pigeot, I., Tutz, G. (2009): Statistik: Der Weg zur Datenanalyse. Springer.
Field, A., Miles, J. and Field, Z. (2012). Discovering Statistics Using R. SAGE.

Certificate: Exam, 6 CP

Location and Time: see TUMonline

Exercises: see TUMonline