

**B.Sc. Course (Elective Module Bachelor Study Phase 1)**  
**Statistik 1 (Statistics 1)**  
**Course number 22013 (Tutorial 22014)**

**Examiner** Prof. Dr. Daniel Rösch

**Instructor** Dr. Maximilian Nagl

**Tutorial** Student Assistants

**Course Objectives** The primary objective of this course is to get basic knowledge in descriptive statistics and probability theory. After this course, students should have a deeper understanding how to analyze and describe data and should be aware of basic probability concepts and their applications.

In short, the topics covered in the course include:

- Descriptive statistics
- Uni- and multivariate frequency distributions
- Measures for central tendency
- Measures for variation
- Measures for higher moments
- Measures for concentration
- Correlation
- Dependence
- Probability theory
- Univariate random numbers

**Primary Learning Outcomes** Students acquire basic knowledge in descriptive statistics which is used to analyze data in depth. Furthermore, an introduction in probability theory is given, while students exemplarily learn first applications of probability theory in finance. Contents are complemented by examples in an accompanying tutorial.

**Prerequisites** None

**Applicability of the BSc Module** WiWi - BSc - Quantitative Grundlagen BWL/VWL/IVWL  
WiWi - BSc - Quantitative Grundlagen WI

**Frequency** Winter term

**Recommended Semester** 1

**Examination** Written exam, 90 minutes

**Workload** Workload:  
Overall: 180h (6 ECTS \* 30h)  
Hours of presence: 60h  
Selfstudy: 120h

**Credit Points** 6 ECTS