Course Description – Summer 2024

Title	Statistics
Faculty	Business and Economics
Professor	Dr. Tobias Simon
ECTS	5
Level	Bachelor
Requirements	-
Add. Information	Students have to take a comprehensive written in-class examination.
Content	This lecture focuses on the basics of both descriptive and inferential statistics as well as on the required contents from probability theory. Moreover, there is an introduction into the statistical program R. The contents are in detail: *Descriptive Statistics*: Univariate and bivariate data analysis as well as measures of location, dispersion and correlation. *Probability theory*: Probability distributions of both discrete and continuous random variables as well as their parameters (expected value, variance and standard deviation). In particular, important distributions such as the binomial and the normal distribution are considered in more detail. Moreover, the students learn how to look up quantiles of distribution functions in statistical tables which is needed for inferential statistics. *Inferential statistics*: Estimation methods (point and interval estimation for the expected value, the variance and unknown percentages) and statistical tests, in particular the z-test and the t-test for the expected value.