Course Description – Winter 2024/2025

Title	Mathematical Finance
Faculty	Business and Economics
Professor	Dr. Tobias Simon
ECTS	5
Level	Bachelor
Requirements	Mathematics and Statistics courses of the first and second semester
Add. Information	Students have to take a comprehensive written in-class examination.
Content	The lecture focuses on basic topics of financial mathematics, in detail: Cash flows and interest calculation (in particular calculation of present and terminal values as well as valuation of various financial products using the equivalence principle of financial mathematics), annuity and amortisation calculation, price and yield calculation (in particular calculation of the internal rate of return), options (put and call options, pricing via no-arbitrage principle). All these topics are dealt with in the lecture by means of numerous exercises. The general aim is to be able to evaluate financial issues with the help of mathematically calculated results.