Course T2.2 XXX322 Derivatives

This course is elective in the module

Person responsible for the course	Prof. Dr. Mathias Moersch
Semester	4
Frequency	Winter and summer semester
Type of Course	lecture with integrated exercise)
Language of instruction	English
Credit points (ECTS)	2.5
Contact hours per week	2.0
Workload - contact hours	30
Workload - self-study	32.5
Detailed remarks on the workload	Preparation and follow-up, exercises, exam preparation
Type of examination	LKBK (course-specific combination of assessments; concluded by a written examination)
Exam duration	60 minutes
Type of course unit	Elective
Requirements for participation	None
Teaching/learning methods	Weekly lectures accompanied by discussions, exercises and written assignments
Professional competence: In-depth knowledge and comprehension	Interpret payoff graphs for various option strategies (call, put, covered call writing, portfolio protection, bull spread, butterfly and straddle) and determine the profit opportunity for given scenarios. Understand the pricing of forwards, futures and swaps in various markets (stocks, interest rates, currencies, commodities). Understand the mechanics of margin accounts. Value call and put options using the binomial model and an option price calculator.
Professional competence : conative skills, analysis and synthesis of knowledge	Critically assess uses of derivatives instruments given market forecasts. Identify arbitrage opportunities using derivatives (put-call parity, covered interest parity).
Personal competence: Social competence	The students are able to provide structures arguments concerning public debates about the (de)merits of structured financial products.
Personal competence: Independence / autonomy	Developing an understanding for the opportunities and risks embedded in the significant amount of leverage involved in all derivatives. This needs to be judged against personal risk parameters or risk parameters of clients.
Competence level according to GQF	6
Contents	Options: Payoff-Graphs, Strategies, Valuation, including Greeks, Black-Scholes and Binomial Model; Forwards: Equity forwards, Interest rate forwards; Currency forwards with a focus on valuation; Swaps; Commodity derivatives

Recommended optional programme components	• International Finance • Corporate Finance • Financial Risk Management • Specific Issues in Finance • Finance Projects
Additional specifics	None
Literature/learning sources	Hull, J.: Fundamentals of Futures and Options Markets, current edition. Reilly, F./Brown, K.: Investment Analysis and Portfolio Management, current edition. Ernst, D./Häcker, J.: Derivate: Optionen und Futures, current edition.
Scheduled	Regular
Combined assessment	Will be published in the first three weeks of lectures.