

## Financial Derivatives

(VL + UE, 4 SWS, 6 SP)

Upon completion of the module, students will be familiar with how standard financial derivatives such as futures, forwards, and options are structured and how they are used in risk management. They will be able to apply standard pricing methods such as the binomial model and the Black-Scholes model, but will also develop a critical understanding of the derivatives business and its role in financial markets and society.

*Prerequisites:* Grundlagen der Finanzwirtschaft I, Mathematik I, Statistik I or equivalent Knowledge

*Literature:* Hull, J. C.: "*Options, Futures, and Other Derivatives*", Pearson, 9th Edition (Global Edition, 2017)

Shreve, S.: "*Stochastic Calculus for Finance I: The Binomial Asset Pricing Model*", Springer Verlag (2005)

Shreve, S.: "*Stochastic Calculus for Finance II: Continuous-Time Models*", Springer Verlag (2008)

*Evaluation:* written exam (90 min)