



M.Sc. Economics

Economics and Politics

Finance

Information Systems and Network Economics

Course title	Futures and Options		
Instructor	Prof. Dr. Eva Lütkebohmert-Holtz	Semester	First year
ECTS (credit points)	6	Contact hours (SWS)	2+2 (lecture/tutorial)
Prerequisites	Principles of Finance (should be taken in parallel)		
Learning target/ qualification	Introduction to basic principles of risk-neutral valuation of futures, standard and exotic options as well as interest rate derivatives.		
Content	<p>This course covers an introduction to financial markets and products. Besides futures and standard put and call options of European and American type, we also discuss interest-rate sensitive instruments such as swaps.</p> <p>For the valuation of financial derivatives we first introduce financial models in discrete time as the Cox-Ross-Rubinstein model and explain basic principles of risk-neutral valuation. Finally, we will discuss the famous Black-Scholes model which represents a continuous time model for option pricing.</p>		
Exam type	<p>120 min. written examination at the end of the semester</p> <p>For admission to the written examination students first have to successfully pass certain course achievements in the form of homework assignments. In particular, there will be 6 exercise sheets marked as homework assignments during the semester. Students are expected to solve these exercises and can submit their solutions for correction within a one week period after the homework sheet has been distributed. For each exercise sheet a total number of 20 points can be achieved. Students have to obtain at least 48 points, i.e., 40% of the total 120 points from all 6 homework assignments in order to be admitted to the examination.</p>		
Literature	<p>Chance, D.M., Brooks, R.: <i>An Introduction to Derivatives and Risk Management</i>, 8th ed., South-Western, 2009.</p> <p>Hull, J.C.: <i>Options, Futures, and other Derivatives</i>, 7th ed., Prentice Hall, 2009.</p> <p>Bielecki, T.R., Rutkowski, M.: <i>Credit Risk: Modeling, Valuation and Hedging</i>, Springer, 2002.</p> <p>Strong, R.A.: <i>Derivatives. An Introduction</i>, 2nd ed., South-Western, 2004.</p>		
Additional Information & Links	Course outlines, dates, and further information can be found on the web page of the department: http://finance.uni-freiburg.de		