Content

Course Code	Course Name	Semester	Theory	Practice	Lab	Credit	ECTS
LFM 512	Financial Risk Analysis And Derivatives	2	3	0	0	3	6

Prerequisites	
Admission Requirements	

Language of Instruction	English
Course Type	Elective
Course Level	Masters Degree
Objective	A perfect hedge is one that completely eliminates the risk. In practice, perfect hedges are rare. In risk analysis, the participants' aim is to use futures markets to reduce a particular risk that they face. The course will develop better understanding of the basic theoretical results in financial derivatives, their proofs, and risk analysis.
Content	Introduction, Mechanics of futures markets Determination of forward and futures prices Hedging strategies using futures Interest rate markets Swaps Properties of stock options Trading strategies involving options Binomial trees The Black-Scholes model The Greek letters Real options, Insurance, weather, and energy derivatives
References	John C. Hull, Options, Futures, and Other Derivatives, 8th Edition, Prentice Hall, 2012.

Theory Topics

Week	Weekly Contents
1	Introduction, Mechanics of futures markets
2	Determination of forward and futures prices
3	Hedging strategies using futures
4	Interest rate markets
5	Swaps
6	Properties of stock options
7	Trading strategies involving options
8	Binomial trees
9	The Black-Scholes model
10	The Greek letters
11	Real options, Insurance, weather, and energy derivatives
12	
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