Virtual Visiting Professors

Erasmus+

Erasmus+ Strategic Partnerships for Higher Education: 2020-1-CZ01-KA226_HE-094462

Course Syllabus

Course Title:	***Financial Markets and Risk Management***
Teaching hours:	2 hours of lectures + 2 hours of seminars
General objective:	*In this course, students will gain in-depth knowledge in the domains of financial risk management and financial markets. In particular, they will become familiar with market conventions, characterize and analyze risks, design hedging strategies and understand their limitations. As a pre-requisite, they should know the concept of intrinsic valuation in finance.*
Topics:	
1	*Motivation, concept of risk. Categories of business risk. Credit risk, credit risk management.*
2	*Financial markets, structure and conventions. Foreign exchange market, foreign exchange conventions.*
3	*Market risk. Market risk management. Concept of hedging. Linear and nonlinear risks.*
4	*Debt markets. Money market and debt capital market. Debt market conventions and pricing. Debt yield determinants, yield curve, rating.*
5	*Interest rate risk management. Immunization, dynamic hedging.*
6	*Interest rate risk management beyond duration. Gap analysis. Convexity, second-order immunization. Riding the yield curve.*
7	*Equity and the stock markets. Stock market conventions, organization. Stock indices. Short selling. Equity risk-return models, CAPM, beta regression. Portfolio neutralization.*
8	*Markets analysis, measuring market risk. Historical volatility. Portfolio risk management. Mean-variance analysis. Portfolio optimization.*
9	*Derivative instruments and derivative markets. Commodity markets. Derivative market conventions. Patterns in derivative markets (contango, normal backwardation). Margin accounts.*
10	*Derivative analysis, hedging strategies. Arbitrage-based pricing, replication. Interpretation of derivative patterns.*
11	*Options hedging, greeks. Options valuation (analytical solutions, recursive numerical solutions). Implied volatility.*
12	*Value at Risk. Economic capital and its applications. Regulatory issues.*
13	*Market (in-)efficiency and its implications. Trading and investment strategies. Systemic risk.*
14	*Term project presentations. Current issues and concluding remarks.*

SCHOOL OF BUSINESS UCT PRAGUE

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