Economics of Financial Risks

SCHOOL
Faculty of Law, Economics and Business Studies (DEG)

CAMPUS
Saint-Serge

LEVEL
2nd year Master's degree

OPEN TO EXCHANGE STUDENTS
Yes

SEMESTER
Spring (S2)

- **Degree course:** M2 Law and Finance
- **Teaching unit:** UE8
- **Course language:** English
- **Duration (hours):** 18
- **ECTS:** 2
- **Teacher(s):** Enareta KURTBEGU

Assessment:

- ☐ Continuous assessment
- ☒ Final exam

Teaching methods:

☒ Lecture course	18	hours	☐ Case study
☐ Tutorial course		hours	☐ Project
☐ Practical work		hours	

COURSE DESCRİPTİON

Chapter 1: Decision making criteria and risk profiles
- Risky case: (Mathematical expectation (E(X)); Expected utility (EU(X)); Ranked Dependent Expected Utility (RDEU(X)))
- Uncertainty case (Subjective Probability (SE(X)); Subjective Expected Utility (SEU(X)); Choquet Expected Utility (CEU(X)))
- Stochastic Dominance (FOSD; SOSD; MPS)
- Risk profiles (Risk averse; risk seeking; risk neutral; Absolute and Relative Risk aversion)
- Prospect Theory & Equity Premium puzzle

Chapter 2: Types of financial risks - risk measurements
- Types of financial risks (Market Risk; Operational Risk; Credit Risk; Liquidity Risk; Strategic Risk)
- Risk and performance measures (Maximum Drawdown/Variance / Volatility / Semi-variance / Semi-déviation / Beta / Sharpe Ratio / Sortino Ratio / Treynor Ratio/ VaR)

Chapter 3: Risk management
- Short Selling
- Derivatives(Swaps ; Futures/Forwards ; Options)
- Greek Letters (Delta ; Gamma ; Vega ; Theta ; Rho)

Chapter 4: Institutional Investors (animated by students' presentations)

OBJECTİVES

The aim of this course is to present students the notion of risk in general and that of financial risk in particular. A detailed description of the financial risks is discussed. The identification of the risks is followed by the measures used to quantify it. It allows students to better understand papers/notes on regulation. The most important risk measures as well as performance measures are introduced. Finally, we present diverse instruments/strategies used to manage diverse types of risk. Students are invited to discuss via group presentations, the role of particular institutional investors (such as Banks, Pension Funds, Insurance companies?) in the financial market.

Keywords: Saint Petersbourg Paradox; Insurance Paradox; Allais Paradox; Ellsberg Paradox; FOSD; SOSD; MPS; Arrow-Pratt index; risk aversion; loss aversion; ambiguity aversion; diversification; Mdd; VaR; CAPM; Beta; Credit default Swaps; Put/call.

PREREQUİSİTES

Statistics and Probability Theory
Analysis of Financial Markets

SELECTİVE BİBLİOGRAPHY

- J. HULL, "Risk Management and Financial Institutions", 5th edition, Wiley Finance Series, 2018
- J. HULL, "Options, Futures, and Other Derivatives", 10th edition, Pearson, 2017
- J. GOLDBERG, "Behavioural Finance", Wiley Finance
- S. SEOG, "The Economics of Risk and Insurance", Wiley Blackwell, 2010
- P. WAKKER, "Prospect Theory: For Risk and Ambiguity", Cambridge, 2010

Readings of several papers is proposed.