

Документ подписан простой электронной подписью
 Информация о владельце:
 ФИО: Ястребов Олег Александрович
 Должность: Ректор
 Дата подписания: 25.12.2021 15:43:58
 Уникальный программный ключ:
 ca953a0120d891083f939673078ef1a989dae18a

Peoples' Friendship University of Russia

Faculty of Economics

The Department of Finance and Credit

Financial Risk Management

Master's program "Modern financial technologies in investment and banking business"

Dr. Darko B. Vukovic, associate professor

Course Syllabus

Title of the course	Financial Risk Management				
Title of the Academic Programme	Modern financial technologies in investment and banking business				
Type of the course	Mandatory				
Prerequisites	Financial markets and investment instruments in the digital economy, Advanced econometrics				
ECTS workload	3				
Total indicative study hours	Directed Study	Self-directed study	Total		
	36	72	108		
Course Overview	The course is aimed at the understanding of main functions of financial risk management and its role in the system of an investment and banking. It also provides students with tools and methods of financial risks assessment and mitigation.				
Intended Learning Outcomes (ILO)	Understand the principles of financial risk management Know basic functions of financial risk management Able to calculate cost of credit risk Able to calculate cost of currency risk Know tools of financial engineering and risk hedging Understand principles of non-profit organizations financial risk management				
Teaching and Learning Methods	The course consists of lectures (18 hours) and tutorials (18 hours). The tutorials involve student presentations (in small groups), problems solving, case analysis and the individual assignment (project).				
Content and Structure of the Course					
№	Topic / Course Chapter	Total	Directed Study		Self-directed Study
			Lectures	Tutorials	
1	Introduction to financial risk management	14	2	2	10
2	Risk and returns on financial markets	14	2	2	10
3	Market and portfolio risk	20	4	4	12
4	Interest rate risk management	18	4	4	10
5	Credit risk	14	2	2	10
6	Currency risk management	14	2	2	10
7	Global risks management	14	2	2	10
Total study hours		108	18	18	72
Indicative Assessment Methods and Strategy	<p>The cumulative grade (G_C) is calculated as an average, based on the following equation:</p> $G_C = 0,9 \cdot G_{hw} + 0,1 \cdot G_{sa}$ <p><i>G_{hw}</i> – grade for homework project <i>G_{sa}</i> – grade for students' activities at class</p> <p>The final grade (G_F) is calculated as follows:</p> $G_F = 0,4 \cdot G_C + 0,6 \cdot G_{EX}, \text{ where}$				

	G_{EX} – grade for the final examination	
	Final exam is multiple choice quiz.	
Readings / Indicative Learning Resources	<u>Mandatory</u> <ol style="list-style-type: none"> 1. Michel Crouhy, Dan Galai, Robert Mark (2014). <i>The Essentials of Risk Management, 2nd Edition</i>. McGraw-Hill, NY, USA. 2. Zvi Bodie, Alex Kane, Alan J. Marcus (2012). <i>Essentials of Investments, 9th Edition</i>, The McGraw-Hill/Irwin, USA. <u>Optional</u> <ol style="list-style-type: none"> 1. Anthony Saunders & Marcia Millon Cornett (2012). <i>Financial markets and institutions, 5th edition</i>, McGraw-Hill/Irwin. 2. Kidwell DS, Blackwell DW, Whidbee DA, Peterson RL (2008). <i>Financial Institutions, Markets and Money</i>, John Wiley & Sons, Inc. 	
Indicative Self- Study Strategies	Type	Hours
	Reading for seminars / tutorials (lecture materials, mandatory and optional resources)	38
	Assignments for seminars / tutorials / labs	30
	Project work	30
	Preparation for the exam	10
Academic Support for the Course	Academic support for the course is provided via MS Teams, where students can find guidelines and recommendations for doing the course; guidelines and recommendations for self-study; samples of assessment materials	
Facilities, Equipment and Software	(If required)	
Course Instructor	Dr. Darko B. Vukovic, Associate Professor	

Course Content

<p>Unit 1. Introduction to financial risk management</p> <p>This is introductory part where students learn fundamentals of financial risk and how to manage them:</p> <ul style="list-style-type: none"> • Introduction to financial risk management • The Conflict of Risk and Reward • Typology of risk exposures <p>Reading: Michel Crouhy, Dan Galai, Robert Mark (2014). <i>The Essentials of Risk Management, 2nd Edition</i>. McGraw-Hill, NY, USA.</p>
<p>Unit 2. Risk and returns on financial markets</p> <p>In this part, we derive predictions for expected return as a function of risk. We begin with an examination of various conventions for measuring and reporting rates of return. Students compute various measures of return on multi-year investments. We use data on the past performance of stocks and bonds or scenario analysis to characterize the risk and return features. The expected return and risk of portfolios are constructed by combining risky assets with risk-free investments in government bonds:</p> <ul style="list-style-type: none"> • Rates of return on individual financial instruments • Risk and Risk Premium

- Rates of return
- Payment of Dividends versus Reinvestment of Earnings
- Measuring Investment Returns over Multiple Periods
- Dollar-weighted return
- Scenario Analysis and Probability Distributions
- Value at Risk
- Deviation from Normality
- Reward-to-Volatility Ratio
- Portfolio Expected Return and Risk

Reading:

Zvi Bodie, Alex Kane, Alan J. Marcus (2012). Essentials of Investments, 9th Edition, The McGraw-Hill/Irwin, USA.

Unit 3. Market and portfolio risk

In this chapter we evaluate the performance of a portfolio manager accounting for market risk. Adjusting average returns for risk presents a host of issues because the proper measure of risk may not be obvious and risk levels may change along with portfolio composition. We begin with conventional approaches to risk adjustment. These use the risk measures developed earlier to rank investment results:

- Diversification and portfolio risk
- Covariance and Correlation
- The Mean-Variance Criterion
- The optimal risky portfolio with a risk-free asset
- The complete portfolio
- The Efficient Frontier of Risky Assets
- A single-index stock market

Reading:

Zvi Bodie, Alex Kane, Alan J. Marcus (2012). Essentials of Investments, 9th Edition, The McGraw-Hill/Irwin, USA.

Unit 4. Interest rate risk management

In this part, we calculate how bond prices will change over time for a given interest rate projection. The call, convertibility and sinking fund provisions, are described and analyzed how these provisions affect a bond's price and yield to maturity:

- Interest rate – passive and active strategy
- Interest rate risk
- Interest Rate Sensitivity
- Duration
- Immunization
- Convexity
- The substitution swap

Reading:

Zvi Bodie, Alex Kane, Alan J. Marcus (2012). Essentials of Investments, 9th Edition, The McGraw-Hill/Irwin, USA.

Unit 5. Credit risk

In this part are identified and analyzed the determinants of bond safety and rating and how default risk is reflected in bond yields and the prices of credit default swaps:

- Credit risk instruments
- Junk Bonds
- Determinants of Bond Safety
- Sinking funds

- Collateral
- Yield to Maturity and Default Risk
- Credit Default Swaps

Reading:

Zvi Bodie, Alex Kane, Alan J. Marcus (2012). Essentials of Investments, 9th Edition, The McGraw-Hill/Irwin, USA.

Unit 6. Currency risk management

In this part we analyze foreign exchange market and learn how to hedge currency risk. We formulate hedge strategies to offset the currency risk involved in international investments:

- Market Capitalization and GDP
- Risk Factors in International Investing
- Exchange Rate Risk
- Hedging

Reading:

Zvi Bodie, Alex Kane, Alan J. Marcus (2012). Essentials of Investments, 9th Edition, The McGraw-Hill/Irwin, USA.

Unit 7. Global risk management

In this part are introduced global, political and country-specific risks that must be considered in the overall risk assessment. Also, students learn how performance attribution procedures can be adapted to an international setting:

- Country-Specific Risk
- International investing: risk, return, and benefits from diversification
- Benefits from International Diversification
- Performance Attribution

Reading:

Zvi Bodie, Alex Kane, Alan J. Marcus (2012). Essentials of Investments, 9th Edition, The McGraw-Hill/Irwin, USA.

