



COURSE UNIT DESCRIPTION

Course unit title	Course unit code
Investment Management in Financial Markets	

Lecturer (s)	Department where course unit is delivered
Coordinator : Assoc.Prof. Saulius Masteika	Kaunas Faculty Institute of Social Sciences and Applied Informatics Muitines str. 8, LT-44280 Kaunas

Cycle	Level of course unit	Type of the course unit
Second	1/1	Elective

Mode of delivery	Semester or period when the course unit is delivered	Language of instruction
Auditorium	3 semester	English

Prerequisites and corequisites	
Prerequisites: Economics, statistics	Corequisites: Previous studies: Mathematics, English, Information technologies

Number of ECTS credits allocated	Student's workload	Contact work hours	Individual work hours
5	130	34	96

Purpose of the course unit: programme competences to be developed		
The aim of the course is- to acquire theoretical and practical knowledge about (i) financial markets and exchanges, trading in stock, currency, crypto and commodity markets, (ii) trading financial instruments, derivatives (iii) intellectual methods for decision making in financial markets.		
Learning outcomes of course unit	Teaching and learning methods	Assessment methods
Students should be able: <ul style="list-style-type: none"> - to apply information technologies in analyzing graphical and statistical information in financial markets - to organize trading and analytical activities in banking departments of investments' management; brokerage firms, startups - to evaluate the risks and profitability trading classical and alternative financial instruments - to apply nonlinear and stochastic methods of technical analysis; the strategies based on fundamental analysis and behavioural finance - to apply intellectual systems in the processes of trading activities in financial markets 	Lectures, practical tasks, self-study, group discussion, paper trading and portfolio management	Colloquium. Intermediate practical assessments. Portfolio management. Exam.

Course content: breakdown of the topics	Contact work hours							Individual work hours and tasks	
	Lectures	Consultations	Seminars	Practice classes	Laboratory	Practice	All contact work	Individual work	Tasks
Introductory lecture. Introduction to the course, assessment methods.	1						1		
Global financial markets and exchanges. Forex market. Commodity and derivative exchanges. Crypto centralized and decentralized exchanges.	1			2			3	10	Scientific literature review; Systematization and generalization of information; Practical tasks and individual work.
Financial instruments. Types of stocks, Debt securities, Futures, Options, Mutual funds, Swaps, ETF, CDS. Historical data standardization and quantitative analysis. Trading through on-line brokers, order types. Practical aspects of trading securities.	2			2			4	12	Scientific literature review; Systematization and generalization of information; Practical tasks and individual work; Paper trading in financial markets.
Fundamental analysis of financial markets. Analysis of financial indicators. Technological solutions for filtering and ranking of securities. CANSLIM analysis. Combining fundamental and technical analysis in decision making in financial markets.	1			1			2	10	Scientific literature review; Systematization and generalization of information; Practical tasks and individual work; Paper trading in financial markets.
Technical analysis. The basic principles and assumptions of technical analysis. Trading strategies based on technical analysis in financial markets. Indicators of technical analysis. Trend indicators. Oscillators. Market strength indicators. Chart patterns. Formalization of technical analysis indicators. On-line instruments for technical analysis. Graphical analysis of historical data, chart types.	4			4			8	12	Readings and practical tasks.
Preparation for colloquium and interim settlements								8	Preparation for mid-term settlements (lessons analysis, scientific literature analysis, reports preparation and presentation).
Intellectual methods for data analysis and securities ranking. Securities ranking techniques and algorithms. On-line technological solutions for data filtering. Nonlinear ranking techniques. Self-organizing networks and Kohonen clustering in financial markets. SOMine software use cases.	1			4			5	12	Scientific literature review; Systematization and generalization of information; Practical tasks and homeworks; Paper trading in

									financial markets.	
Emotional intelligence and behavioral finance. Prospect theory. Neuroeconomy and neuro finance. Trading biases and intuition when trading markets. Sentiment indicators in financial markets and crowd behavior patterns. Commercial products related to behavioral finance. Behavioral finance and technical analysis.	3			1				4	6	Scientific literature review; Systematization and generalization of information; Practical tasks and homework; Paper trading in financial markets.
Blokchain technology and cryptocurrency solutions. Bitcoin and altcoins. Mining. Investment strategies. Blockchain and fintech solutions. Smart contracts.	3			2				5	16	Scientific literature review; Systematization and generalization of information; Practical tasks and homework; Paper trading in financial markets.
Consultation		2						2		
Preparing for the exam and exam									8	Preparing for exam (E)
Exam									2	
In total	16	2		16				34	96	

Assessment strategy	Comparative weight percentage	Date of examination	Assessment criteria
Practical work, (A1; A2)	40%	6 and 15 week	Assessed are the following aspects: <ul style="list-style-type: none"> - If practical tasks are completed - If practical tasks are summarized, conclusions written - If practical work quality meets the minimum paper work requirements Assessed in grades 1-10 rating scale. The same weight is for every practical work (A1; A2)
Paper trading (PT)	10%	Paper trading during the semester. Assessment during the session	Assessed the quality of the management of the investment portfolio (financial instruments, diversification, trading intensity). The results are compared with the SP500 index. Assessed in grades 1-10 rating scale.
Colloquium /Seminar, (K)	10%	According timetable	Mid-term exam covers the first lectures of theoretical material. A student is given three open questions with the same weight (33,3%). Assessed in grades 1-10 rating scale.
Exam, (E)	40%	According timetable	The exam covers the theoretical material of lectures. A student is given three open questions with the same weight (33,3%). Assessed in grades 1-10 rating scale.
Final grade: $FG = A1*0,2+A2*0,2+PT*0,1+K*0,1+E*0,4$			

Author	Year	Title	Number of periodical publication or Volume	The place of publication and publisher or online link
Required reading				
Alexander Elder	2014	The New Trading for a Living:		Wiley Trading

		Psychology, Discipline, Trading Tools and Systems, Risk Control, Trade Management		
Charles D.Kirkpatrick II, Julie R.Dahlquist	2010	Technical Analysis: The Complete Resource for Financial Market Technicians	Second Edition	FT Press
Andreas M. Antonopoulos	2015	Mastering Bitcoin: Unlocking Digital Cryptocurrencies	Second Edition	O'Reilly
Janakiramanan S.	2011	Derivatives and Risk Management		Pearson Press
R.Simutis, S.Masteika	2017	Intellectual systems in financial markets, e-conspectus		VU KnF
Narayanan, A.	2016	Bitcoin and Cryptocurrency Technologies: A Comprehensive Introduction.		Oxford: Princeton University Press.
Daniel Kahneman	2013	Thinking, Fast and Slow	Reprint edition	Farrar, Straus and Giroux
Van K.Tharp	2013	Trading Beyond the Matrix: The Red Pill for Traders and Investors		Wiley
Recommended reading				
Filippo Stefanini	2011	Investment strategies of hedge funds		Wiley
Susanne Chishti, Janos Barberis	2016	The FinTech Book: The Financial Technology Handbook for Investors, Entrepreneurs and Visionaries		Wiley
Nassim Nicholas Taleb	2004	Foiled by Randomness: The Hidden Role of Chance in Life and in the Markets		Penguin Books
Neil C. Schofield	2008	Commodity Derivatives: Markets and Applications		Wiley