

Subject card

Subject name and code	Econometrics of Financial Markets II, PG_00157384						
Field of study	Information Science and Econometrics						
Date of commencement of studies	October 2024		Academic year of realisation of subject			2025/2026	
Education level	postgraduate studies		Subject group			Obligatory subject group in the field of study Subject group related to scientific research in the field of study	
Mode of study	full-time studies		Mode of delivery			at the university	
Year of study	2		Language of instruction			Polish	
Semester of study	3		ECTS credits			2.0	
Learning profile	academic		Assessment form				
Conducting unit	Katedra Ekonometrii -> Faculty of Management						
Name and surname of lecturer (lecturers)	Subject supervisor		dr Sabina Nowak				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	15.0	0.0	0.0	0.0	30
	E-learning hours included: 0.0						
Learning activity and number of study hours	Learning activity	Participation in didactic classes included in study plan		Participation in consultation hours		Self-study	SUM
	Number of study hours	30		10.0		10.0	50
Subject objectives	Deepen knowledge of financial market analysis and modelling.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[liEMU2_W02] The student has an in-depth knowledge of economic structures and institutions, the processes taking place in them, the connections between them and their dynamics, and has an in-depth knowledge of the phenomena and processes taking place in their environment.	The student possesses a deep understanding of financial market structures and institutions, as well as the phenomena and dynamics occurring within the financial market and the connections between them.	[SW4] test/exam - oral or written [SW3] text preparation/written work
	[liEMU2_K01] The student understands the need for continuous completion and deepening of acquired knowledge. The student inspires and organizes others' learning processes.	The student comprehends the necessity of continually enhancing and deepening their understanding of financial market analysis and motivating and coordinating the learning process for others.	[SK1] oral statement/conversation/discussion [SK8] observation of student's independent or team work
	[liEMU2_W04] The student has an in-depth knowledge of advanced mathematical, statistical, econometric and IT methods that enable the acquisition, processing and analysis of data reflecting the functioning and growth of the national economy and its components, as well as the phenomena and processes occurring in their environment.	The student possesses deep knowledge in decision-making under uncertainty, portfolio diversification methods, estimation and evaluation of asset pricing models, and analysis of the term structure of interest rates.	[SW4] test/exam - oral or written [SW3] text preparation/written work
	[liEMU2_U07] The student is able to build advanced formal models of complex economic phenomena and processes, estimate them, carry out their verification and apply them to modeling, forecasting and optimization of resources of economic institutions of varying degrees of complexity, their structure and the course of processes in them.	The student can build, estimate, and validate asset pricing models (CAPM and factor models), perform multi-asset portfolio optimization, and verify selected theories of term structure.	[SU2] presentation/project/paper/report [SU3] text preparation/written work [SU4] test/exam - oral or written
	[liEMU2_U05] The student is able to make a statistical description of basic and detailed economic categories at an advanced level, formulate and verify hypotheses about their formation.	At an advanced level, the student can conduct statistical analyses of financial variables at different frequency levels, estimate asset pricing models, and test hypotheses regarding the term structure of interest rates.	[SU2] presentation/project/paper/report [SU3] text preparation/written work [SU5] implementation of a problem task
Subject contents	[liEMU2_K03] The student is able to communicate freely with the public inside and outside the workplace, transfer his knowledge and share his skills through various media.	The student can freely discuss financial market topics and effectively prepare and present a presentation in this area.	[SK1] oral statement/conversation/discussion [SK2] presentation/project/paper/report
	1. Decisions making under uncertainty. Maximizing the expected utility of wealth. Portfolio analysis. Efficient n-securities portfolio (with a risk-free asset). Efficient portfolio of a risk-averse investor. Portfolio diversification. From theory to practice - portfolio diversification on the Warsaw Stock Exchange. 2. Market equilibrium. CAPM asset pricing model. Multi-factor models. Problems of specification, estimation and validation of asset pricing models. From theory to practice - asset pricing models on the Warsaw Stock Exchange. 3. Equity instruments investment efficiency. Performance measures. From theory to practice - the investment efficiency of WIG20 index shares, mutual funds, and pension funds. 4. Interest rate and its types. Term structure hypotheses (expectations hypothesis, liquidity preference hypothesis, market segmentation hypothesis, preferred habitat hypothesis). From theory to practice - verification of the expectations hypothesis using the model of perfect foresight spread; changes in the long interest rate; the cointegrated VAR model.		
	Prerequisites and co-requisites		
	An essential understanding of financial markets and the instruments that function within them.		
	Assessment methods and criteria		
	Subject passing criteria	Passing threshold	Percentage of the final grade
Recommended reading	project or presentation	51.0%	100.0%
	Basic literature	1. Cuthbertson K., Nitzsche D. (2004), Quantitative Financial Economics. Stocks, Bonds and Foreign Exchange, Wiley. 2. Jajuga K., Jajuga T. (2015), Inwestycje. Instrumenty finansowe, aktywa niefinansowe, ryzyko finansowe, inżynieria finansowa, Wydawnictwo Naukowe PWN. 3. Zamojska A. (2012), Efektywność funduszy inwestycyjnych w Polsce. Studium teoretyczno - empiryczne, Wydawnictwo Beck.	
	Supplementary literature	1. Christopherson J., Carinho D. R., Ferson W. E. (2009), Portfolio Performance Measurement and Benchmarking, McGraw-Hill.	
eResources addresses		Adresy na platformie eNauczanie:	

Example issues/ example questions/ tasks being completed	
Work placement	Not applicable

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