

Subject card

Subject name and code	Information Processing for Investment Professionals, PG_00124236						
Field of study	Finance and Accounting						
Date of commencement of studies	October 2024		Academic year of realisation of subject		2024/2025		
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	1		Language of instruction		Polish		
Semester of study	2		ECTS credits		4.0		
Learning profile	academic		Assessment form				
Conducting unit	Katedra Informatyki Ekonomicznej -> Faculty of Management						
Name and surname of lecturer (lecturers)	Subject supervisor		dr Jacek Maślankowski				
	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		21.0		49.0	100
Subject objectives	The aim of the course is to familiarize students with modern data processing tools and basic sources of information (data bases) used by investment professionals.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[FiRMU2_K02] Cooperation: - the student can harmoniously interact and work in a group, assuming various roles in the group, including leadership and supervision of the group, - can agree with the group on goals and division of tasks, - is open-minded, respecting the differences of other team members.	acts as a team player or team leader to complete classroom activities or course project prepares and gives presentations moderates and participates in discussions, expresses own opinions and constructive criticism about projects of peer students	[SK2] presentation/project/paper/report
	[FiRMU2_K03] Communication: - the student can present his/her view/ issue in a way that others can understand, - courageously (but prudently) expresses his opinion, is not afraid to ask questions, - can participate culturally in the discussion, - can give constructive criticism, - can communicate on specialized topics in finance and accounting with a diverse audience.	acts as a team player or team leader to complete classroom activities or course project prepares and gives presentations moderates and participates in discussions, expresses own opinions and constructive criticism about projects of peer students	[SK2] presentation/project/paper/report
	[FiRMU2_W09] The student knows and understands grammatical structures and vocabulary thoroughly within his/her specialty in a foreign language at B2+ level.	Definitions of Big Data, artificial intelligence and machine learning Basic classification algorithms used in Big Data and key features of big data tools Key machine learning techniques Key sources of information used by financial professionals Rules for data import	[SW4] test/exam - oral or written
	[FiRMU2_U09] The student can use a foreign language at the B2+ level of proficiency of the Common European Framework of Reference for Languages and specialized terminology. The student has an in-depth ability to prepare written works, oral speeches and presentations in a modern foreign language on specific issues in his/her specialty, using basic theoretical approaches and various sources of information.	Select adequate statistical measures for machine learning techniques and justify the choice Find necessary information in selected databases Develop a data base for further analyses Build simple data processing algorithm Interpret results of simple data processing model	[SU2] presentation/project/paper/report
	[FiRMU2_W05] The student has an extended knowledge of advanced methods and tools, including data acquisition and analysis techniques, specific to the social sciences to describe economic structures and institutions and the processes within and between them.	Definitions of Big Data, artificial intelligence and machine learning Basic classification algorithms used in Big Data and key features of big data tools Key machine learning techniques Key sources of information used by financial professionals Rules for data import	[SW4] test/exam - oral or written
	[FiRMU2_U04] The student can forecast and model complex economic processes and phenomena in finance and accounting using advanced methods and tools appropriate to the science of finance.	Select adequate statistical measures for machine learning techniques and justify the choice Find necessary information in selected databases Develop a data base for further analyses Build simple data processing algorithm Interpret results of simple data processing model	[SU2] presentation/project/paper/report

Subject contents	1) Data sources and data storage		
	2) Data repositories with open data on financial issues		
	3) Data processing and analysis		
	4) Extracting valuable information from large datasets (Big Data)		
	5) Data quality issues		
	6) Internet as a data source		
	7) Practical applications of data processing		
Prerequisites and co-requisites	Basic knowledge of Office software suites		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Project	50.01%	50.0%
	Exam - test	50.01%	50.0%
Recommended reading	Basic literature	Kenneth C. Laudon, Jane P. Laudon, Management Information Systems: Managing the Digital Firm (16th Edition), Pearson, 2019 Karen Berman, Joe Knight, John Case, Financial Intelligence, Revised Edition: A Manager's Guide to Knowing What the Numbers Really Mean Revised, 2013	
	Supplementary literature	Craig S. Fleisher, Babette E. Bensoussan, Business and Competitive Analysis: Effective Application of New and Classic Methods (2nd Edition), 2015	
	eResources addresses	Adresy na platformie eNauczanie:	
Example issues/ example questions/ tasks being completed	Methods of data analysis		
	Machine learning algorithms types and applications		
Work placement	Not applicable		

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