GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Risk management in insecure enviroment , PG_00025524					
Field of study	Mathematics					
Date of commencement of studies	October 2022		Academic year of realisation of subject		2024/2025	
Education level	first-cycle studies		Subject group			
Mode of study	Full-time studies		Mode of delivery		at the university	
Year of study	3		Language of instruction		Polish	
Semester of study	5		ECTS credits		4.0	
Learning profile	general academic profile		Assessment form		assessment	
Conducting unit	Department of Nonlinear Analysis and Statistics -> Faculty of Applied Physics and Mathematics					
Name and surname of lecturer (lecturers)	Subject supervisor	dr hab. Karol Dziedziul				
	Teachers	dr hab. Karol Dziedziul				

Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	15.0	15.0	0.0	0.0	45
	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	45	0.0	0.0	45

Subject objectives	Modern methods of risk management		

Learning outcomes	Course outcome	Subject outcome	Method of verification
	K6_U05	The student knows how to use Sklar theorem in modeling. He can apply the copulas theory. Understands the Strong Law of Large Numbers through the use of the Monte Carlo method	[SU5] Assessment of ability to present the results of task [SU1] Assessment of task fulfilment
	K6_U10	Analyzes made with the support of SAS or R are based on the modification of known programs. However, the main requirement is interpretation.	[SU1] Assessment of task fulfilment
	K6_W03	When carrying out a project, a student must apply specific data for market analysis, e.g. cotton, gold or stocks. He has to demonstrate knowledge of a part of the financial market.	[SW3] Assessment of knowledge contained in written work and projects

Subject contents	http://www.mif.pg.gda.pl/homepages/kdz/teoriaryzyka/ryzyko.pdf		
Prerequisites and co-requisites	Probability and an introduction to statistics		

Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
		50.0%	100.0%

Recommended reading	Basic literature	[1] Hans Föllmer, Alexander Schied Stochastic Finance An Introduction in DiscreteTime Second Revised and Extended EditionWalter de Gruyter Berlin New York 2004.[2] A. McNeil, R. Frey, P. Embrechtes Quantitive Risk Management Princeton University Press 2005
	Supplementary literature	[1] Ravindra Khattree, Dayanand N. Naik, Applied Multivariate Statistics with SASsoftwareSAS Institute Inc. and John Wiley & Sons, Second edition 2003.[2] R.B. Nelsen,An introduction to copulasSpringer 2006
	eResources addresses	Adresy na platformie eNauczanie:

Example issues/ example questions/ tasks being completed	A determination of minimum reserves with the involvement of investment in gold and the stock market
Work placement	Not applicable