



## Subject card

Subject name and code	DERIVATIVE INSTRUMENTS IN FINANCIAL MANAGEMENT, PG_00067550						
Field of study	Economic Analytics						
Date of commencement of studies	October 2025		Academic year of realisation of subject		2026/2027		
Education level	second-cycle studies		Subject group		Optional subject group Specialty subject group 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		3.0		
Learning profile	general academic profile		Assessment form		assessment		
Conducting unit	Department Of Finance -> Faculty Of Management And Economics -> Wydziały Politechniki Gdańskiej						
Name and surname of lecturer (lecturers)	Subject supervisor						
	Teachers						
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	30.0	0.0	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		5.0		25.0	75
Subject objectives	Plans to use derivatives, matching them to the current needs of the organization in order to reduce financial risk and maintain the economic value of the organization						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K7_W06] knows and understands the principles of evaluating the reliability of utilized data, applying in-depth specialized knowledge in the field of economic analysis.		knows and understands the principles of data reliability assessment and uses them to analyze organizational financing problems and select appropriate solutions.		[SW1] Assessment of factual knowledge		
	[K7_K02] acts entrepreneurially, making competent and ethical decisions that consider the public interest as well as economic, social, and environmental values.		is prepared to assess financial risk and make decisions that minimize value loss while considering economic and social responsibility.		[SK5] Assessment of ability to solve problems that arise in practice		
Subject contents	The essence of derivatives and their classification Valuation of forward contracts for assets Valuation of FRA contracts The use of futures contracts to hedge against currency risk The use of futures contracts to hedge against interest rate risk Effectiveness of hedging strategies. Valuation of currency and interest rate swaps. Option pricing binomial model and Black-Scholes model Greek coefficients Option strategies - examples of use Examples of exotic options and their use.						
Prerequisites and co-requisites							
Assessment methods and criteria	Subject passing criteria		Passing threshold		Percentage of the final grade		
	2 tests per semester		60.0%		100.0%		

Recommended reading	Basic literature	Hull J., Kontrakty terminowe i opcyjne. Wprowadzenie, WIG Press, Warszawa 1997 Hull J. C., Zarządzanie ryzykiem instytucji finansowych, Wydawnictwo Naukowe PWN, Warszawa 2011 Jajuga K., Inwestycje: instrumenty finansowe, aktywa niefinansowe, ryzyko finansowe, inżynieria finansowa, Wydawnictwo Naukowe PWN, Warszawa 2007 Zarządzanie ryzykiem, red. K. Jajuga, Wydawnictwo Naukowe PWN, Warszawa 2008
	Supplementary literature	Dębski W., Rynek finansowy i jego mechanizmy, Wydawnictwo Naukowe PWN, Warszawa 2001 Golawska-Witkowska G., Rzeczycka A., Instrumenty pochodne w ograniczaniu ryzyka bankowego, Katedra Finansów, WZiE, PG, Gdańsk 2009 Kalinowski M., Zarządzanie ryzykiem stopy procentowej w przedsiębiorstwie, CeDeWu, Warszawa 2009 Kalinowski M., Zarządzanie ryzykiem walutowym w przedsiębiorstwie, CeDeWu, Warszawa 2008 Pruchnicka-Grabias I., Egzotyczne opcje finansowe, CeDeWu, Warszawa 2009
	eResources addresses	Adresy na platformie eNauczanie:
Example issues/ example questions/ tasks being completed	Binomial model. Black-Scholes model	
Work placement	Not applicable	

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