GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	DERIVATIVES IN FINANCIAL MANAGEMENT, PG_00060925		
Field of study	Economic Analytics		
Date of commencement of studies	October 2023	Academic year of realisation of subject	2024/2025
Education level	second-cycle studies	Subject group	Optional subject group Subject group related to scientific research in the field of study
Mode of study	Part-time studies (on-line)	Mode of delivery	blended-learning
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 Economic Analysis and Finance -> Faculty of Management and Economics		
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Ewa Mazurek-Krasodomska	
	Teachers	dr inż. Ewa Mazurek-Krasodomska	

Lesson types and methods of instruction

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	8.0	16.0	0.0	0.0	0.0	24

E-learning hours included: 18.0

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	24	8.0	43.0	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_K02] makes competent and ethical decisions, taking care of the public interest and maintaining economic, social and environmental values	assesses the financial risk of the organization, minimizing the possibility of losing economic value	[SK5] Assessment of ability to solve problems that arise in practice
[K7_W04] analyzes complex problems in an in-depth way on the basis of reliable data and properly selected methods, obtaining logical solutions	analyzes problems related to financing the organization and selects appropriate solutions based on the acquired in-depth knowledge	[SW1] Assessment of factual knowledge

Subject contents

The essence of derivatives and their classification
Valuation of forward contracts for assets
Valuation of FRA contracts
Swap pricing
Option pricing binomial model and Black-Scholes model
The use of futures contracts to hedge against currency risk
The use of futures contracts to hedge against interest rate risk
Option strategies - examples of use
Using swaps to hedge risk

Prerequisites and co-requisites

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
group tasks	60.0%	100.0%

Recommended reading	Basic literature	Hull J., Kontrakty terminowe i opcyjne. Wprowadzenie, WIG Press, Warszawa 1997 Hull, J. C.(2021). Zarządzanie ryzykiem instytucji finansowych. Warszawa: Wydawnictwo Naukowe PWN.Jajuga. K. (2015). Inwestycje: instrumenty finansowe, aktywa niefinansowe, ryzyko finansowe, inżynieria finansowa. Warszawa: Wydawnictwo Naukowe PWN.Jajuga, K. (red.). (2020). Zarządzanie ryzykiem . Warszawa: Wydawnictwo Naukowe PWN.
	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.(2021). Egzotyczne opcje finansowe. Systematyka, wycena, strategia. Warszawa: CeDeWu.
	eResources addresses	Adresy na platformie eNauczanie: 24/25 N Instrumenty pochodne w zarządzaniu finansami - Moodle ID: 37707 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=37707
Example issues/ example questions/ tasks being completed	Binomial model. Black-Scholes model	
Work placement	Not applicable	