GDAŃSK UNIVERSITY
OF TECHNOLOGY

Subject card

Subject name and code	Derivatives in Financial Management, PG_00037094		
Field of study	Economic Analytics		
Date of commencement of studies	October 2022	Academic year of realisation of subject	2023/2024
Education level	second-cycle studies	Subject group	Optional 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 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	0.0	30.0	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	6.0	39.0	75

Subject objectives

Introduction students to the possibility of using derivative instruments in order to reduce financial risk and their valuation.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[K7_U03] can identify and analyse the causes and course of specific economic processes and phenomena as well as propose solutions based on them	The student is able to assess the company's financial risk and reduce it using of derivatives.	[SU2] Assessment of ability to analyse information [SU4] Assessment of ability to use methods and tools
[K7_U14] can improve oneself through the systematic acquisition of knowledge and skills	Student can improve by a systematic knowledge and skills acquisition necessary to use derivative instruments to limit the financial risks.	[SU2] Assessment of ability to analyse information
[K7_W15] has an in-depth knowledge of the processes taking place in the company and the risks associated with it	The student has knowledge of the financial risk of the company.	[SW1] Assessment of factual knowledge

Subject contents

The essence of derivatives and their classification. Valuation of forward contracts on assets; Valuation of FRA; Valuation of swaps; Valuation of options - 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.; Options strategies - examples of use; Using swaps to hedge against the risk.

Prerequisites and co-requisites

No requirements

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
Homework	50.0%	30.0%
Midterm colloquium	60.0%	70.0%

Recommended reading	Basic literature	1. Hull J., Kontrakty terminowe i opcyjne. Wprowadzenie, WIG Press, Warszawa 1997. 2. Hull J. C., *Zarządzanie ryzykiem instytucji finansowych*, Wydawnictwo Naukowe PWN, Warszawa 2011. 3. Jajuga K., Inwestycje: instrumenty finansowe, aktywa niefinansowe, ryzyko finansowe, inżynieria finansowa, Wydawnictwo Naukowe PWN, Warszawa 2015. *4. Zarządzanie ryzykiem*, red. K. Jajuga, Wydawnictwo Naukowe PWN, Warszawa 2020.
	Supplementary literature	1. Dębski W., Rynek finansowy i jego mechanizmy, Wydawnictwo Naukowe PWN, Warszawa 2001. 2. Golawska-Witkowska G., Rzeczycka A., Instrumenty pochodne w ograniczaniu ryzyka bankowego, Katedra Finansów, WZiE, PG, Gdańsk 2009. 3. Kalinowski M., Zarządzanie ryzykiem stopy procentowej w przedsiębiorstwie, CeDeWu, Warszawa 2009. 4. Kalinowski M., Zarządzanie ryzykiem walutowym w przedsiębiorstwie, CeDeWu, Warszawa 2008. 5. Pruchnicka-Grabias I., Egzotyczne opcje finansowe, CeDeWu, Warszawa 2009.
	eResources addresses	Adresy na platformie eNauczanie: 23/24 Instrumenty pochodne w zarządzaniu finansami - Moodle ID: 28667 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=28667
Example issues/ example questions/ tasks being completed	Binomial method. Black-Scholes formula.	
Work placement	Not applicable	