GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	FORECASTING AND OPTIMIZATION IN LOGISTICS, PG_00061120		
Field of study	Management		
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
Mode of study	Full-time studies	Mode of delivery	at the university
Year of study	2	Language of instruction	English
Semester of study	3	ECTS credits	2.0
Learning profile	general academic profile	Assessment form	assessment
Conducting unit	Faculty of Management and Economics		
Name and surname of lecturer (lecturers)	Subject supervisor	dr Mateusz Muchlado	
	Teachers	dr Mateusz Muchlado mgr Anna Wendt	

Lesson types and methods of instruction

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	0.0	0.0	30.0	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	3.0	17.0	50

Subject objectives

Acquiring knowledge and skills in using tools to support and optimize logistics processes.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[K7_U04] prepares and presents convincing, professional presentations of analysis results, with their in-depth interpretation	The student is able to present the solutions he has developed in an attractive and accessible way to the group. The student is able to use specialized tools used to present statistical and logistic data.	[SU1] Assessment of task fulfilment [SU5] Assessment of ability to present the results of task
[K7_K01] recognizes the importance of knowledge related to the field of study in solving cognitive and practical problems	The student has knowledge of logistics processes and the projection of demand and supply. He can use his knowledge in practice to make the right decisions regarding logistics process.	[SK1] Assessment of group work skills

Subject contents

1. Basics of logistics processes and management methods.2. Basics of warehouse management, assortment organization strategies.3. Naive methods in estimating storage demand.4. Statistical methods of controlling logistics processes.5. Risk management in logistics processes.6. Simulation game regarding internal transport processes and resource-based planning.

Prerequisites and co-requisites

Basic knowledge of economics and management, English language usage

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
In-semester mini-project's	60.0%	50.0%
Final exam	60.0%	50.0%

Recommended reading	Basic literature	Multimedia presentation, available on the e-learning platform. Additional materials available on the e-learning platform.
	Supplementary literature	Fernie, John, and Leigh Sparks, eds. *Logistics and retail management: emerging issues and new challenges in the retail supply chain*. Kogan page publishers, 2018. McKinnon, Alan, et al., eds. *Green logistics: Improving the environmental sustainability of logistics*. Kogan Page Publishers, 2015.
	eResources addresses	Podstawowe https://enauczanie.pg.edu.pl/moodle/course/view.php?id=40292 - E-nauczanie Platform Adresy na platformie eNauczanie: Forecasting and optimalization in logistics (Winter 24/25) - Moodle ID: 40292 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=40292
Example issues/ example questions/ tasks being completed	1. Choose the best inventory management strategy for your dairy wholesaler. 2. Choose the best demand forecasting system for seasonal products 3. Present a risk analysis for the selected procurement process 4. Propose a strategy for internal product logistics in the factory	
Work placement	Not applicable	

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