GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Selected issues of Transport Logistics, PG_00056221
Field of study	Transport and Logistics

Date of commencement of studies	October 2021	Academic year of realisation of subject	2023/2024
Education level	first-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	3	Language of instruction	Polish
Semester of study	6	ECTS credits	2.0
Learning profile	general academic profile	Assessment form	assessment

Conducting unit	Institute of Ocean Engineering and Ship Technology -> Faculty of Mechanical Engineering and Ship Technology

Name and surname of lecturer (lecturers)	Subject supervisor	dr Ievgen Medvediev
	Teachers	dr Ievgen Medvediev

Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	30.0	0.0	0.0	0.0	0.0	30
	E-learning hours included: 0.0						
	Address on the e-learning platform: https://enauczanie.pg.edu.pl/moodle/course/view.php?id=11672						

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	2.0	18.0	50

Subject objectives	Presentation of the basic concepts and definitions of logistics, the area of interest, acquire skills of solving logistic problems.

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[K6_U07] applies knowledge on humanities, social and economical science in solving problems	The student acquires skills in the implementation of tasks related to planning a sea route, taking care of supplies and safety during a sea voyage.	[SU1] Assessment of task fulfilment [SU5] Assessment of ability to present the results of task
	[K6_W07] has a general knowledge on humanities, social and economical sciences. Knows the rules of creating the forms of personal entrepreneurship and economic activity, has knowledge on the protection of intellectual property rights and industrial property rights and copyrights	The student acquires knowledge of maritime logistics, including the basics of sea route planning, the basics and rules of maritime transport. He has knowledge of E-Maritime and E-Transport support systems.	[SW1] Assessment of factual knowledge [SW2] Assessment of knowledge contained in presentation

Subject contents	The first part of time are an introduction to the subject of logistics, represent the genesis, the area of interest in logistics, e-environment and logistics, the basic concepts of logistics and traffic engineering and the task facing the logistics.
	The development of the subject object present in the form of 6 modules.
	Earth, Sea, Transportation
	Mathematics, Graphs, Logistics
	The first 7 weeks of classes are implemented 3 modules (Earth, Sea, Transport) bound with traffic engineering are discussed topics such as geodesy, geophysics, geomorphology, geomagnetism, geography, sea, marine navigation and aviation, communications, law of motion at sea and in the air , object speed, distance traveled, position and its determination. Calculation of the final parameters conducted trip ETA ,stocks. This part ends with a test.
	During the semester is scheduled a visit to the VTS Gulf of Gdansk - The vessel traffic in the Gulf of Gdansk
	The second part of semester are implemented 3 new modules (Mathematics, graphs, Logistics) knowledge gained from the first part of the semester allows to implement additional modules. Traffic Engineering is used to implement optimization algorithms. The student learns the basics of graph theory and algorithms such search the shortest path algorithm minimum tree fastener algorithm to maximize flow algorithm optimal load "knapsack problem". All algorithms are illustrated in the examples of logistics and traffic engineering.
	Last exam is with traffic engineering and logistics finished this course

Prerequisites and co-requisites	

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

Recommended reading	Basic literature	1. M.Jurdziński. Podstawy nawigacji morskiej. Gdynia 2003
		2. M.Siudak. Badania Operacyjne. OWPW 1997
		3. H.Wagner. Badania Operacyjne. PWE 1980
		4. Podstawy logistyki. Praca zbiorowa, Biblioteka Logistyka, Instytut Logistyki i Magazynowania w Poznaniu, Poznań 2008.
		5. Wilson Robin J. Wprowadzenie do teorii grafów. PWN 2016
	Supplementary literature	n/d
	eResources addresses	Adresy na platformie eNauczanie:

Example issues/ example questions/ tasks being completed	For storage truck arrived with a capacity of 10 t. Truck has so load the car to the value of the load was greatest, and the weight of the goods does not exceed 10 t. Here is a list of available goods in stock:
	Chest gold 6t 11mln zł; gearbox 5 silver, 5; transmission diamonds 4.7; Clothes designers 1 6; Exclusive watches 3.2; Electronic equipment 5.1; Works of art 2 8; China 4 5;

Work placement	Not applicable