GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Transport Logistics and Shipping, PG_00044639		
Field of study	Transport		
Date of commencement of studies	October 2024	Academic year of realisation of subject	2026/2027
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	5	ECTS credits	3.0
Learning profile	general academic profile	Assessment form	assessment
Conducting unit	Department of Transportation Engineering -> Faculty of Civil and Environmental Engineering -> Faculties of Gdańsk University of Technology		
Name and surname of lecturer (lecturers)	Subject supervisor	dr hab. Daniel Kaszubowski	
	Teachers		

Lesson types

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	15.0	15.0	15.0	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

Understanding of importance of logistics processes for transport activity. Understanding of methods and tools for analysis and planning of transportation processes.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[K6_W04] has knowledge in the areas of diagnosing, designing, and managing transportation systems and the processes occurring within them, economic processes, transport economics, transport financing systems, and transport law	Selecting the appropriate method for measuring performance based on the type of process being analyzed	[SW3] Assessment of knowledge contained in written work and projects
[K6_K02] understands the need to formulate and communicate to the public information and opinions on the achievements of environmental engineering and other aspects of work of a sanitary industry engineer; is aware of the importance of and understands non-technical aspects and consequences of engineering; takes steps to communicate such information and opinions in a comprehensible manner and present different points of view	The ability to identify the importance of logistics and transportation in social and economic development.	[SK5] Assessment of ability to solve problems that arise in practice
[K6_U09] able to select tools and methods, carry out assessments and simple tests of transport systems to an extent required of the specialty / learning profile	The ability to select appropriate analytical tools based on the complexity of the transportation and logistics processes under consideration.	[SU3] Assessment of ability to use knowledge gained from the subject

Subject contents

Course content – lecture

Transportation in logistics. Outsourcing of transport services. Criteria for an analysis of transport and logistics processes. Efficiency of logistics processes. Definiton of spedition company and characteristics of services. Forwamding of dangerous and ovesize loads.

Course content – exercises

1. Supply chain – transport chain and logistics chain
2. The freight forwarding process
3. Logistics processes in an enterprise
4. Customer service in an enterprise
5. Transport resource planning
6. Mid-term test
7. Dangerous goods: codes and conventions, classification, packaging and marking, and segregation
8. Cargo preparation: cargo capacity, dunnage materials, cargo damage, units of measurement and weight, stowage plan, cargo fumigation, and vehicle load factor
9. Transport process optimisation
10. Transport and freight forwarding
11. Mid-term test

Course content – laboratory

1. Introduction to Transport Management Systems (TMS), including the architecture, modules, and basic applications of the IMPARGO platform.
2. Configuration of a transport company's master data, including vehicles, trailers, drivers, subcontractors, customers, and addresses.
3. Creation of basic and advanced cost profiles, as well as specification of vehicle parameters affecting transport costs, route selection, and road tolls.
4. Planning of single-leg and multi-stop truck routes, taking into account loading and unloading points, travel time, distance, and emission parameters.
5. Calculation of transport costs, road tolls, operating expenses, and proposed service prices for transport operations performed using an own fleet or subcontractors.
6. Registration and processing of transport orders, including customer data, schedules, loading units, documents, and additional charges.
7. Fleet scheduling in the dispatch module, assignment of orders to vehicles, and management of delays, vehicle breakdowns, and scheduling conflicts.
8. Transmission of orders to drivers and simulation of their execution using the DriverApp, including status updates, loading and unloading operations, and delivery documentation.
9. Analysis of transport execution by comparing planned and actual routes, stop durations, delivery times, travelled distances, and cost deviations.
10. Assessment of the operational and economic efficiency of a transport company.

Prerequisites and co-requisites

Basics of logistics

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
lecture	60.0%	50.0%
lab excercises	60.0%	50.0%

Recommended reading

Basic literature	jw.
Supplementary literature	n/d
eResources addresses	

Example issues/ example questions/ tasks being completed

Ootimisation of a distribution scheme with a PTV Route Optimiser

Practical activites within the subject

Not applicable

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