



Subject card

Subject name and code	Transportation of Bulk and Unitized Cargo, PG_00060664						
Field of study	Transport ładunków masowych i zjednostkowanych						
Date of commencement of studies	October 2023		Academic year of realisation of subject		2025/2026		
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		4.0		
Learning profile	general academic profile		Assessment form		assessment		
Conducting unit	Department of Marine Structures Mechanics and Technology -> Institute of Naval Architecture -> Faculty of Mechanical Engineering and Ship Technology -> Faculties of Gdańsk University of Technology						
Name and surname of lecturer (lecturers)	Subject supervisor		dr inż. Ryszard Pyszko				
	Teachers		dr inż. Ryszard Pyszko				
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	30.0	0.0	0.0	30.0	0.0	60
	E-learning hours included: 0.0						
	eNauczanie source addresses: Moodle ID: 1941 Transport ładunków masowych i zjednostkowanych https://enauczanie.pg.edu.pl/2025/course/view.php?id=1941						
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	60		4.0		36.0	100
Subject objectives	The aim is to prepare students to plan, organize, and implement the transport of bulk and unitized cargo in an efficient, safe manner that complies with technical and legal requirements.						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K6_U01] can obtain information from literature, databases and other sources; verify and systematize the information obtained, interpret it and draw conclusions, formulate and justify opinions		The student is able to collect and assess the usefulness in terms of the efficiency of transport processes for selected cargoes.		[SU1] Ocena realizacji zadania [SU3] Ocena umiejętności wykorzystania wiedzy uzyskanej w ramach przedmiotu		
	[K6_W05] has established knowledge in the field of design, construction and operation of transport means and systems		The student has knowledge of bulk and unitised cargo transport processes.		[SW1] Ocena wiedzy faktograficznej		

Subject contents	Course content – lecture		
	I. Bulk and unitized cargo 1. Definitions and basic concepts 2. The role and importance of transport in the economy 3. Basic types of transport (land, sea, air, rail, pipeline) 4. Efficiency of the transport process II. Characteristics of bulk and unitized cargo 1. Bulk cargo 2. Unitized cargo 3. Transport documentation and procedures III. Methods and technologies of bulk cargo transport IV. Supply chain management system 1. ERP - Enterprise Resource Planning 2. WMS warehouse management 3. TSM - Transport planning and optimization 4. Platforms for real-time data exchange V. Safety and standards in bulk and unitized cargo transport 1. International laws and regulations (e.g., IMDG, SOLAS, ADR) 2. Cargo safety 3. Environmental protection and sustainable development 4. Risk management 5. Growing threats to the transport industry		
	Course content – project		
	Key steps in organizing transport for general cargo 1. Cargo analysis 2. Determining delivery terms and conditions 3. Selecting the appropriate means of transport and route 4. Permits, standards, regulations 5. Packing and securing cargo 6. Choosing a carrier/ forwarding company 7. Documentation and formalities 8. Operational planning 9. Transport monitoring and progress control 10. Unloading and collection of goods 11. Settlement and evaluation		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Project	60.0%	50.0%
	Lecture	60.0%	50.0%
Recommended reading	Basic literature	K. Wojewódzka-Król, E. Załoga; Transport: New Challenges; ISBN: 978-83-01-18462-9; PWN K. Miler; Maritime Transport Safety; ISBN: 978-83-01-18222-9; PWN A. Wiewióra, Z. Wesolek, J. Puchalski; Crude Oil in Maritime Transport; ISBN 978-83-924540-2-1; TRADEMAR Publishing House, Gdynia	
	Supplementary literature	Internet, trade magazines	
	eResources addresses		
Example issues/ example questions/ tasks being completed	Describe the characteristics of bulk and unitized cargo Discuss examples of the selection of means of transport for bulk and unitized cargo (typical/specialized)		
Practical activities within the subject	Not applicable		

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