GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Infrastructure and Exploitation of Ports and Logistics Terminals, PG_00055081		
Field of study	Transport and Logistics		
Date of commencement of studies	October 2022	Academic year of realisation of subject	2024/2025
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 Theory and Ship Design -> Faculty of Mechanical Engineering and Ship Technology		
Name and surname of lecturer (lecturers)	Subject supervisor	dr hab. inż. Jakub Montewka	
	Teachers		

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	15.0	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	10.0	45.0	100

Subject objectives	The aim of the course is to familiarize the student with the sea and inland ports subject, i.e. the most important aspects related to the infrastructure, suprastructure and operation of sea and inland ports in Poland and in the world. The student learns about functioning of modern, large sea and inland ports, their construction and the most important port services they provide. This course also aims at showing the economic and organizational conditions of operating ports and to presenting the requirements that modern, large ports in Poland and in the world face.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[K6_U05] can formulate a simple engineering task and its specification within the range of design, construction and operation of means and systems of transport	Student creates, describes and presents a selected engineering problem of transport system. He characterizes the functioning of seaports, infrastructure and suprastructure. Student knows the role of ports in multimodal transport system.	[SU5] Assessment of ability to present the results of task [SU2] Assessment of ability to analyse information [SU1] Assessment of task fulfilment
[K6_W05] has an organized knowledge on design, construction and operation of means and systems of transport	Student describes the basic structure and role of sea ports in the transport system of the country and the world. He can describe the port operations and characterize the most important port services. He knows the organization of work and traffic in the port, characterizes the management of transport processes in the port, knows the role of institutions and offices in the seaports. Student describes the transshipment technologies in Polish seaports and knows the equipment of port terminals.	[SW2] Assessment of knowledge contained in presentation [SW3] Assessment of knowledge contained in written work and projects [SW1] Assessment of factual knowledge
[K6_W08] has knowledge regarding the principles of sustainable development	Student has knowledge of the requirements for modern seaports and inland ports and their role in the supply chain. He is able to characterize the principles of environmental protection in seaport, list port networks and characterize their operation. Student knows the most important aspects of the sustainable development of seaports.	[SW3] Assessment of knowledge contained in written work and projects [SW1] Assessment of factual knowledge

Subject contents

Construction and equipment of sea and inland ports. Division of sea and inland ports by destination and function. Characteristics of the functioning of modern seaports, seaports in Poland, Europe and the world, competitiveness of seaports. Conditions that must be met by a seaport to be able to function freely, basic requirements for modern seaports. The concept and classification of seaports, the importance of port infrastructure, port infrastructure management. Port infrastructure, the process of loading cargo onto the ship. Port suprastructure. Port networks. Functions of seaports, quality of port services, production features of port services. Transshipment technologies in Polish seaports, terminal equipment in seaports. Size of the seaport measures, port generations.

Prerequisites and co-requisites

Lectures knowledge: Sea-going ships, Means of transport, Transport infrastructure

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
Test	50.0%	50.0%
Seminar	50.0%	50.0%

Recommended reading

Basic literature	Robert J. McCalla, Brian Slack, Peter Hall, *Integrating Seaports and Trade Corridors*, 2016 Routledge
Supplementary literature	Kap Hwan Kim (Editor), Hans-Otto Günther, *Container Terminals and Cargo Systems: Design, Operations Management, and Logistics Control Issues*, Springer 2007
eResources addresses	Adresy na platformie eNauczanie:

Example issues/ example questions/ tasks being completed

Transhipment technologies in sea ports
Characteristics of Ro-Ro handling technology

Work placement

Not applicable