GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Infrastructure and Exploitation of Ports and Logistics Terminals, PG_00060656						
Field of study	Transport and Logistics						
Date of commencement of studies	October 2026		Academic year of realisation of subject	2028/2029			
Education level	first-cycle studies		Subject group	Obligatory subject group 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	5.0			
Learning profile	general academic profile		Assessment form	exam			
Conducting unit	Department of Theory and Ship Design -> Faculty of Mechanical Engineering and Ship Technology -> Faculties of Gdańsk University of Technology						
Name and surname of lecturer (lecturers)	Subject supervisor		prof. dr hab. inż. Jakub Montewka				
	Teachers						

Lesson types

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	30.0	30.0	0.0	0.0	0.0	60

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	60	5.0	60.0	125

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_K03] understands non-technical aspects and effects of activity in the profession of an engineer and its impact on the environment; is aware of the responsibility for decisions made	The student understands a wide range of aspects related to the profession and its impact on the environment.	[SK5] Assessment of ability to solve problems that arise in practice
[K6_W05] has established knowledge in the field of design, construction and operation of transport means and systems	The student is able to indicate the main elements related to the process of design, construction and operation of maritime transport systems and the means of transport used.	[SW3] Assessment of knowledge contained in written work and projects
[K6_U71] is able to apply knowledge from humanistic, social, economic or legal sciences in order to solve problems	The student is aware of the multi-aspect nature of transport systems.	[SU3] Assessment of ability to use knowledge gained from the subject

Subject contents

Course content – lecture
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

Transportation means, transport infrastructure

<table>
<tr><td>Assessment methods and criteria</td><td colspan="3"><table>
<tr><th>Subject passing criteria</th><th>Passing threshold</th><th>Percentage of the final grade</th></tr>
<tr><td>Seminar</td><td>50.0%</td><td>50.0%</td></tr>
<tr><td>Test</td><td>50.0%</td><td>50.0%</td></tr>
</table></td></tr>
<tr><td rowspan="3">Recommended reading</td><td>Basic literature</td><td colspan="2">Robert J. McCalla, Brian Slack, Peter Hall, Integrating Seaports and Trade Corridors, 2016 Routledge</td></tr>
<tr><td>Supplementary literature</td><td colspan="2">Kap Hwan Kim (Editor), Hans-Otto Günther, Container Terminals and Cargo Systems: Design, Operations Management, and Logistics Control Issues, Springer 2007</td></tr>
<tr><td>eResources addresses</td><td colspan="2"></td></tr>
<tr><td>Example issues/ example questions/ tasks being completed</td><td colspan="3">Transhipment technologies in sea portsCharacteristics of Ro-Ro handling technology</td></tr>
<tr><td>Practical activites within the subject</td><td colspan="3">Not applicable</td></tr>
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