GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	SEMINAR ON PORTS AND WATERWAYS, PG_00041433		
Field of study	Civil Engineering		
Date of commencement of studies	February 2025	Academic year of realisation of subject	2025/2026
Education level	second-cycle studies	Subject group	Optional subject group
Mode of study	Full-time studies	Mode of delivery	at the university
Year of study	2	Language of instruction	Polish
Semester of study	3	ECTS credits	3.0
Learning profile	general academic profile	Assessment form	assessment
Conducting unit	Department of Geotechnics, Geology and Marine Civil Engineering -> Faculty of Civil and Environmental Engineering		
Name and surname of lecturer (lecturers)	Subject supervisor	prof. dr hab. inż. Lech Bałachowski	
	Teachers		

Lesson types and methods of instruction

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	0.0	0.0	0.0	0.0	30.0	30

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	30	5.0	40.0	75

Subject objectives

Enlarged knowledge in the domain of port design, port and hydrotechnic structures, and waterways.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[K7_U15] has advanced skills in civil engineering within offered specialization/profile	Student is able to analyze the behavior of marine and hydrotechnic structures.	
[K7_W11] has deep knowlege of marine and inland hydotechnical constructions; has knowledge about hydraulical and hydrological constrains in design and exploitation of buildings	Student knows the questions related to construction and maintenance of marine and hydrotechnic structures.	
[K7_K04] understands the necessity of dissemination civil engineering knowlege in the society and to suport the proffesional ethos of a civil engineer	Student gives presentation concerning marine and hydrotechnic civil engineering.	
[K7_K02] Rocognizes the significance of knowledge in solving cognitive and practical problems; reliably evaluates results of his own and team research	Student is able to know and analyse polish and foreign bibliography in the considered domain.	

Subject contents

Construction and maintenance of ports. Port structures. Coast protection. The use of dredged materials. Soil improvement in marine civil engineering. Canals in Poland. Hydrotechnic structures on waterways. Water power stations. Offshore structures.

Prerequisites and co-requisites

Knowledge of soil mechanics, hydraulics, hydrology, concrete technology, foundation engineering, soil improvement and earthworks.

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
presentation	60.0%	50.0%
presence and activity	70.0%	50.0%

Recommended reading	Basic literature	Journal of Ports and Waterways www.dredgdikes.eu www.smocs.eu
	Supplementary literature	Lech Bałachowski, Norbert Kurek, Deep soil compaction of sandy soils, Studia Geotechnica et Mechanica, 4/2014 Lech Bałachowski, Physical modelling of geotechnical structures in ports and offshore, Journal of Maritime Research, 4/2017
	eResources addresses	Adresy na platformie eNauczanie:
Example issues/ example questions/ tasks being completed	Port constructions in Poland and abroad Waterways Soil improvement in ports	
Work placement	Not applicable	

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