



## Subject card

Subject name and code	MARINE CIVIL ENGINEERING, PG_00044232						
Field of study	Civil Engineering						
Date of commencement of studies	October 2020	Academic year of realisation of subject			2023/2024		
Education level	first-cycle studies	Subject group			Optional subject group		
Mode of study	Full-time studies	Mode of delivery			at the university		
Year of study	4	Language of instruction			Polish		
Semester of study	7	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		dr hab. inż. Waldemar Magda				
	Teachers						
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	0.0	15.0	0.0	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	The main target is to acquaint a student with typical shipyard structures and methods of definition of loadings (static and dynamic) acting onto structures.						
Learning outcomes	Course outcome	Subject outcome			Method of verification		
	[K6_U07] Can design and properly dimension basic elements of construction or basic foundations of general, hydrotechnical and bridge constructions	A student is able to make a design of basic structural elements or typical foundations for marine civil engineering structures (shipyard structures in particular).			[SU1] Assessment of task fulfilment		
	[K6_U01] can evaluate and list the loads acting on constructions	A student is able to evaluate and collect loadings acting onto marine civil engineering structures (shipyard structures in particular).			[SU1] Assessment of task fulfilment		
	[K6_W07] has basic knowledge on natural processes (hydrological, hydraulic or geological) and its influence on building subsoil; understands specific aspects of surface and underground water, which constraints the design and exploitation of buildings and engineering objects	A student has a basic knowledge of environmental processes (e.g. sea state, wind, wind waves) and their influence on seabed floor and sediments; a student understands the diversity and specific nature of different sea regions, as well as their consequences on design and operation of marine civil engineering structures.			[SW2] Assessment of knowledge contained in presentation		
[K6_W09] knows the principles of determining of loads acting on basic constructions (e.g. general, industrial, bridge, water, marine, transport objects) and rules of its constructing	A student knows basic principles of definition of loadings acting onto selected marine civil engineering structures (shipyard structures in particular); a student is familiar with basic construction methods.			[SW2] Assessment of knowledge contained in presentation			
Subject contents	Characteristics and construction solutions with respect to longitudinal and side slipways. Ship launching longitudinal slipways (phases of launching and dynamic loadings). Launching of ships, floating docks and floating platforms from side slipways (phases of launching and dynamic loadings). Types of dry docks (gravitational, drainage, anchored). Dry dock gates. Calculations of slipways and dry docks. Mooring and fendering structures - types and design.						
Prerequisites and co-requisites	No requirements						

Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	oral or written test	60.0%	50.0%
	design case	60.0%	50.0%
Recommended reading	Basic literature	<p>1. Hueckel S.: Budownictwo morskie. Tom I, II, III, IV, Wydawnictwo Morskie, Gdańsk, 1972.</p> <p>2. Mazurkiewicz B.: Hydrotechniczne konstrukcje stoczniowe, cz. I i II. Wydawnictwo Morskie, Gdańsk 1981.</p> <p>3. Mazurkiewicz B.: Pochylnie podłużne i poprzeczne. Budownictwo Wodne nr 16 Zeszyty Naukowe Politechniki Gdańskiej, Gdańsk 1971.</p> <p>4. Mazurkiewicz b.: Doki suche. Gdańskie Towarzystwo Naukowe, Acta Technica Gedanensisa nr 8, Gdańsk 1970.</p> <p>5. Mazurkiewicz B.: Urządzenia cumownicze. Politechnika Gdańska, Wydział Hydrotechniki, Gdańsk 1983.</p> <p>6. Mazurkiewicz B.: Urządzenia odbojowe. Politechnika Gdańska, Katedra Budownictwa Morskiego, Gdańsk 1991.</p> <p>7. Mazurkiewicz B.: Encyklopedia Inżynierii Morskiej. Wydawnictwo Morskie, Gdańsk, 1986.</p>	
	Supplementary literature	<p>1. Poradnik hydrotechnika. Praca zbiorowa pod red. S. Massela, Wydawnictwo Morskie, Gdańsk, 1992.</p> <p>2. Morskie budowle hydrotechniczne. Zalecenia do projektowania i wykonawstwa Z 1 - Z 45. Praca zbiorowa pod red. B. Mazurkiewicza, FPPOiGM, Gdańsk, 2006.</p> <p>3. Shore Protection Manual, USA, 1984.</p> <p>4. Handbook Quay Walls. Rotterdam, Taylor &amp; Grancis, Gouda, The Netherlands, 2005.</p> <p>5. Inżynieria Morska i Geotechnika (dwumiesięcznik).</p>	
	eResources addresses	<p>Adresy na platformie eNauczanie:  Budownictwo morskie (2023-2024) - Moodle ID: 34743  <a href="https://enauczanie.pg.edu.pl/moodle/course/view.php?id=34743">https://enauczanie.pg.edu.pl/moodle/course/view.php?id=34743</a></p>	
Example issues/ example questions/ tasks being completed			
Work placement	Not applicable		