



## Subject card

Subject name and code	RIVER REGULATIONS AND DREOLGING, PG_00041428						
Field of study	Civil Engineering						
Date of commencement of studies	February 2023	Academic year of realisation of subject			2023/2024		
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	1	Language of instruction			Polish		
Semester of study	2	ECTS credits			2.0		
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 inż. Remigiusz Duszyński					
	Teachers	dr inż. Remigiusz Duszyński					
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	15.0	0.0	0.0	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		15.0		50
Subject objectives	The student learns the rules of river regulation. Familiarizes with the methods of river regulation. Student gets acquainted with the methods of conducting dredging works.						
Learning outcomes	Course outcome	Subject outcome			Method of verification		
	[K7_W14] knows and applies building codes and obeys the Construction Law; has knowledge on environmental impact of investment realisation	Student has knowledge of the impact of river regulation and dredging works on the environment			[SW3] Assessment of knowledge contained in written work and projects		
	[K7_K04] understands the necessity of dissemination civil engineering knowledge in the society and to support the professional ethos of a civil engineer	Student understands the need to disseminate knowledge about water construction and water resources in Poland			[SK4] Assessment of communication skills, including language correctness		
	[K7_U10] can analyse complicated environmental loads acting on a construction; can apply proper processes to design marine and hydroengineering constructions taking into consideration hydrological and hydraulic impact	Student is able to analyze complex load systems acting on sea and inland hydrotechnical structures.			[SU2] Assessment of ability to analyse information [SU4] Assessment of ability to use methods and tools		
	[K7_W11] has deep knowledge of marine and inland hydrotechnical constructions; has knowledge about hydraulic and hydrological constrains in design and exploitation of buildings	Student has an extended knowledge of hydrotechnical structures. He can assess the conditions influencing the selection of the right structure and factors related to the operation			[SW3] Assessment of knowledge contained in written work and projects		
Subject contents	Characteristics of surface waters. Regulation and hydrotechnical development of rivers. Non-damming structures. Water damming structures. Movement of water in a natural river bed. Water flow in the river bed under the bridge. Rubble lifted. Dragged rubble. Principles of selection of hydraulic parameters of the regulated riverbed and the regulatory route. Regulatory structures. Principles of conducting dredging works. Types of dredgers and selection of dredging equipment.						
Prerequisites and co-requisites	None						

Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Test	60.0%	50.0%
	Exercise	60.0%	50.0%
Recommended reading	Basic literature	1. Bednarczyk S., Duszyński R.: Hydrauliczne i hydrotechniczne podstawy regulacji i rewitalizacji rzek. Gdańsk, 2008 2. Wołoszyn J.: Regulacja rzek i potoków, Warszawa 1998	
	Supplementary literature	1. Zastosowanie konstrukcji gabionowych w regulacji koryt cieków wodnych. R. Duszyński, Maccaferri 2017 2. Portowe roboty czerpalne i podwodne. E. Lewko; Gdynia, 2006	
	eResources addresses	Adresy na platformie eNauczenie: Regulacja Rzek i Roboty Pogłębiarskie - 2023/24 - Moodle ID: 28662 <a href="https://enauczanie.pg.edu.pl/moodle/course/view.php?id=28662">https://enauczanie.pg.edu.pl/moodle/course/view.php?id=28662</a>	
Example issues/ example questions/ tasks being completed	Farque's Principles. Gabion regulatory structures. Techniques for conducting regulatory work		
Work placement	Not applicable		