



Subject card

Subject name and code	Master thesis, PG_00059965						
Field of study	Environmental Engineering						
Date of commencement of studies	February 2024		Academic year of realisation of subject		2024/2025		
Education level	second-cycle studies		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		18.0		
Learning profile	general academic profile		Assessment form		assessment		
Conducting unit	Department Of Sanitary Engineering -> Faculty Of Civil And Environmental Engineering -> Wydział Politechniki Gdańskiej						
Name and surname of lecturer (lecturers)	Subject supervisor		dr inż. Karolina Matej-Łukowicz				
	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	0.0	0
	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	0		30.0		420.0	450
Subject objectives	Based on the knowledge of studies and work during the diploma semester, the student solves the problem formulated in the subject of the master diploma thesis. The student presents the prepared diploma thesis.						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K7_W12] has knowledge of contemporary and useful principles on data acquisition, filtration, processing and analysis		Student is able to search for, analyze, and filter data and materials necessary for completing a scientific task.		[SW3] Assessment of knowledge contained in written work and projects		
	[K7_U05] can rely on scientific sources for modern methods and technologies, and propose trends in the development of methods and rules for acquiring, filtering, processing and analyzing data		he student demonstrates the ability to retrieve knowledge from contemporary sources, including artificial intelligence tools. Furthermore, they possess competencies in analyzing, filtering, and processing information.		[SU2] Assessment of ability to analyse information		
	K7_U09		The student demonstrates the ability to critically assess their own knowledge base, recognize areas requiring improvement, and develop effective strategies for ongoing autonomous learning.		[SU4] Assessment of ability to use methods and tools		
	[K7_W10] has knowledge of the protection and management of intellectual, industrial and copyright resources		Student can find and properly use sources of information relating to the problem area of the diploma thesis		[SW3] Assessment of knowledge contained in written work and projects		
	[K7_U01] can obtain information from literature, databases and other sources; can integrate the obtained information, interpret and critically evaluate them, draw conclusions, and formulate and comprehesively justify the opinions		Student can find and properly use sources of information relating to the problem area of the diploma thesis		[SU1] Assessment of task fulfilment		

Subject contents	Legal requirements for obtaining a university diploma, organization of own research, requirements for diploma theses, their defense and diploma examinations. Writing diploma theses: preparation of diploma theses, publication components, preparation of the status of an issue in specialist literature related to the subject of the work, writing technique, editorial preparation of publications. Preparation of multimedia presentations.		
Prerequisites and co-requisites	The student should have a basic knowledge of the principles of designing water and sewage and gas installations, installation materials available on the market and legal regulations in this field.		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Review of the thesis	60.0%	100.0%
Recommended reading	Basic literature	1. PN-92 / B-01706 Water supply installations. Design requirements 2. PN-88 / M-54907 Screw water meters with vertical axis of the meter 3. Regulation of the Minister of Infrastructure of November 6, 2008. on technical conditions to be met by buildings and their location 4. PN-EN 33-2011 Toilet bowls and toilet sets 5. PN-EN 31-2011 Washbasins connecting dimensions 6. PN-EN 695: 2005 Kitchen sinks - connection dimensioning 7. PN-EN 232: 2005 Bath tubs connecting dimensions 8. Technical requirements of Cobrti Instal. Technical conditions for the construction and acceptance of water supply installations. 9. PN-B-10725: 1997 Water supply, external pipes, requirements and tests 10. PN-EN 12056-2 Gravity drainage systems inside buildings, sanitary drainage, layout and calculation design 11. Technical requirements of Cobrti Instal. Technical conditions for the execution and acceptance of the sewage system. 12. PN EN 1610 Construction and testing of sewage pipes 13. PN-B-01707 Sewerage installations - requirements in design 14. PN-EN 1917: 2004 Manholes and non-manholes made of unreinforced concrete, of concrete reinforced with steel and reinforced concrete fibers15. PN-B-10729: 1999 Sewerage, drains 16. Regulation of the Minister of the Interior and Administration of August 16, 1999 on the technical conditions for the use of residential buildings	
	Supplementary literature	1. Chudzicki J., Sosnowski S., Sewerage installations: design, execution, operation, Wydawnictwo Siedel-Przywecki 20112. Chudzicki J., Sosnowski S., Water supply installations: design, execution, operation, Wydawnictwo Siedel-Przywecki 20113. Gaßner A., Sanitary installations: a guide for designers and installers, WydawnictwoNaukowo-Techniczne 2008	
	eResources addresses	Adresy na platformie eNauczanie:	
Example issues/ example questions/ tasks being completed	- review of current legal acts, standards and literature in the field of work; - preparation of a technical description of the solutions used for the implementation of individual installations; - performing engineering calculations for the selection of diameters and media flow conditions; - preparation of drawing documentation consisting in marking out the wires of individual installations with elements of fittings on the architectural bases provided by the promoter. volume_up content_copy share star_border		
Work placement	Not applicable		

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