



Subject card

Subject name and code	Sanitary Systems in Buildings , PG_00062078						
Field of study	Civil Engineering						
Date of commencement of studies	October 2025		Academic year of realisation of subject		2026/2027		
Education level	first-cycle studies		Subject group				
Mode of study	Part-time studies		Mode of delivery		at the university		
Year of study	2		Language of instruction		Polish		
Semester of study	3		ECTS credits		2.0		
Learning profile	general academic profile		Assessment form		assessment		
Conducting unit	Department of Sanitary Engineering -> Faculty of Civil and Environmental Engineering -> Faculties of Gdańsk University of Technology						
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. inż. Jakub Drewnowski				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	10.0	5.0	0.0	0.0	0.0	15
	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	15		0.0		0.0	15
Subject objectives	The aim of the course is to familiarize students with the various types of building sanitary networks and installations, their applications, construction, design principles, advantages and disadvantages of specific solutions and technologies, with a view to using this knowledge in the professional practice of a civil engineer.						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K6_U04] Reads and prepares construction documentation (including drawings, graphic documentation in the CAD environment), efficiently uses maps as well as architectural, construction and geodetic drawings.		The student is able to apply the knowledge acquired in basic sciences to understand the principles of operation and the practical application of this knowledge in the use of computer technology in the design of sanitary installations and networks.		[SU2] Assessment of ability to analyse information [SU1] Assessment of task fulfilment [SU5] Assessment of ability to present the results of task [SU4] Assessment of ability to use methods and tools [SU3] Assessment of ability to use knowledge gained from the subject		
	[K6_W03] Demonstrate knowledge and understanding of the processes, established standards and design methods in the civil engineering subject area and of their limitations.		The student is able to find and properly use information sources, legal acts, and standards related to the field of designing sanitary installations and networks.		[SW1] Assessment of factual knowledge [SW2] Assessment of knowledge contained in presentation [SW3] Assessment of knowledge contained in written work and projects		
	[K6_U03] Design engineering objects and details, processes and engineering systems by applying appropriate standards and methods of design.		The student is able to use the knowledge acquired in basic sciences to understand the principles of operation and the practical application of this knowledge in the use of computer technology in the design of sanitary installations and networks.		[SU1] Assessment of task fulfilment [SU3] Assessment of ability to use knowledge gained from the subject [SU5] Assessment of ability to present the results of task [SU4] Assessment of ability to use methods and tools [SU2] Assessment of ability to analyse information		

Subject contents	Course content – lecture Municipal infrastructure networks. Installations: classification, projects of installation industry sectors. Basic solutions for potable water supply systems (methods of supplying buildings with water, materials used). Fire protection installations. Heating installations (classification, materials used, and technical solutions with special emphasis on central heating, boiler room layout).		
	Course content – exercises Details of water supply installations. Cold water installations, information on solutions for domestic hot water (DHW). Sanitary sewage installations: fixtures, materials, design principles. Stormwater drainage installations: traditional solutions and vacuum installation, design principles, materials used. Classification, design principles, and detailed solutions for gas installations.		
Prerequisites and co-requisites	Completed basic program in general construction		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Final test and passing exercises	60.0%	100.0%
Recommended reading	Basic literature	1. Sosnowski S., Tabernacki J., Chudzicki J.: Instalacje wodociągowe i kanalizacyjne. Wyd. Instalator Polski, Warszawa, 2000. 2. Poradnik: Instalacje wodociągowe, kanalizacyjne i gazowe. Praca zbiorowa pod red. M. Chudzickiego, Arkady, Warszawa,1976.	
	Supplementary literature	1. Katalogi wyrobów i firmowe poradniki dla projektantów: Geberit, PipeLife, Wavin, LPM Danfoss, COMAP, PURMO,KanTherm, PoWoGaz S.A., Metron, AQUATHERM, Cuprum, COPRAX, ROCKWOOL, Thermaflex i in.; 2. Obowiązujące normy, przepisy i wytyczne, a w szczególności: Warunki Techniczne Wykonania i Odbioru Robót Budowlano Montażowych, Tom II: Instalacje Sanitarne i Przemysłowe, ARKADY, Warszawa 1988 oraz Wymagania Techniczne COBRTI INSTAL ; zeszyt 1-10, Warszawa, 1999 do 2005.	
	eResources addresses		
Example issues/ example questions/ tasks being completed	Connecting the water installation to the municipal water network pipe. Materials used in water installations. Fire protection installations in buildings. Gas installations, materials, gas meters. Hot water installations, division, regulation. Heating installations, division, regulation.		
Practical activites within the subject	Not applicable		

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