



Subject card

Subject name and code	Buildins Installations II, PG_00062607								
Field of study	Civil Engineering								
Date of commencement of studies	October 2024	Academic year of realisation of subject		2025/2026					
Education level	first-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	4	ECTS credits		3.0					
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			
	Number of study hours	15.0	0.0	0.0	20.0	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		SUM			
	Number of study hours	35	0.0	0.0	0.0	35			
Subject objectives	The aim of the course is to familiarize students with the different types of sanitary networks and installations construction, their use, construction, design principles, advantages and disadvantages of the different solutions and technologies in terms of using this knowledge in the professional practice of an Engineer Construction								

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.	A student of civil engineering, while designing the structure of a building, analyzes and describes the most appropriate solutions and technologies in the field of necessary building installations. In this way, it establishes a partnership dialogue with the specialists who design these installations.	[SU4] Assessment of ability to use methods and tools [SU2] Assessment of ability to analyse information [SU1] Assessment of task fulfilment						
	[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 sources of information, legal acts and standards relating to the problem area of designing sanitary installations and networks	[SW3] Assessment of knowledge contained in written work and projects [SW2] Assessment of knowledge contained in presentation [SW1] Assessment of factual knowledge						
	[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 acquired knowledge in the field of basic sciences in order to understand the principles of operation and practical application of this knowledge in the use of computer technology in the design of sanitary installations and networks.	[SU4] Assessment of ability to use methods and tools [SU1] Assessment of task fulfilment [SU5] Assessment of ability to present the results of task [SU3] Assessment of ability to use knowledge gained from the subject [SU2] Assessment of ability to analyse information						
	[K6_W06] Demonstrates practical knowledge and understanding of materials, devices and tools, processes and technologies in the field of civil engineering (and their limitations).	The student understands the effects of a sanitary engineer's activities, the impact on the environment and the associated responsibility for the decisions made.	[SW3] Assessment of knowledge contained in written work and projects [SW2] Assessment of knowledge contained in presentation [SW1] Assessment of factual knowledge						
Subject contents	Course content – lecture LECTURES: Municipal infrastructure networks. Installations: division, installation industry projects. Basic solutions for drinking water supply systems (methods of supplying buildings with water, materials used). Fire protection systems Heating installations (division, materials and technical solutions used, with particular emphasis on central heating, heat substation room). Project: Plumbing Details of cold water installations, information on hot water solutions Sanitary sewer systems: utensils, materials, design principles. Rainwater drainage systems: traditional solutions and vacuum installation, design principles, materials used. Division, design principles and details of gas installation solutions.								
Prerequisites and co-requisites	Completed basic program in the field of general construction.								
Assessment methods and criteria	<table border="1"> <thead> <tr> <th>Subject passing criteria</th><th>Passing threshold</th><th>Percentage of the final grade</th></tr> </thead> <tbody> <tr> <td>Colloquium and project passing</td><td>60.0%</td><td>100.0%</td></tr> </tbody> </table>	Subject passing criteria	Passing threshold	Percentage of the final grade	Colloquium and project passing	60.0%	100.0%		
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Recommended reading	<p>Basic literature</p> <p>1. Sosnowski S., Tabernacki J., Chudzicki J.: Instalacje wodociągowe i kanalizacyjne. Wyd. Instalator Polski, Warszawa, 2000.</p> <p>2. Poradnik: Instalacje wodociągowe, kanalizacyjne i gazowe. Praca zbiorowa pod red. M. Chudzickiego, Arkady, Warszawa, 1976.</p> <p>Supplementary literature</p> <p>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.;</p> <p>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.</p>								
	eResources addresses								

Example issues/ example questions/ tasks being completed	Connection of the water supply system to the municipal water supply line. Materials used in plumbing systems. Fire protection systems in buildings. Gas installations, materials, gas meters. Hot water installations are divided by regulation. Heating systems division regulation
Practical activites within the subject	Not applicable

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