



Subject card

Subject name and code	Building Installations for Architects, PG_00067339						
Field of study	Architecture						
Date of commencement of studies	October 2026		Academic year of realisation of subject		2026/2027		
Education level	second-cycle studies		Subject group		Obligatory subject group in the field of study Subject group related to scientific research in the field of study		
Mode of study	Full-time studies		Mode of delivery		at the university		
Year of study	1		Language of instruction		English		
Semester of study	1		ECTS credits		2.0		
Learning profile	general academic profile		Assessment form		assessment		
Conducting unit	Department of Urban Transformation -> Faculty of Architecture -> Faculties of Gdańsk University of Technology						
Name and surname of lecturer (lecturers)	Subject supervisor		dr inż. arch. Roman Ruczyński				
	Teachers		dr inż. arch. Roman Ruczyński				
Lesson types	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		3.0		17.0	50
Subject objectives	The aim of the course is to develop knowledge and skills in applying pro-ecological solutions, installation systems, and modern and innovative technologies in architectural and urban planning projects.						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K7_U04] is able to use analytical methods to formulate and solve project tasks, present the theoretical background and justification of the presented solutions in the form of a scientific study		is able to use analytical methods to formulate and solve design tasks		[SU4] Assessment of ability to use methods and tools		
	[K7_U02] is able to use interdisciplinary knowledge and skills acquired during studies to design a complex architectural object or urban complex that meets the aesthetic and technical requirements, creating and transforming space and giving it new values		The student is able to propose technically correct installation solutions on an architectural or urban scale, dictated by the perception of a pro-environmental approach as an additional and extremely important value in contemporary design.		[SU3] Assessment of ability to use knowledge gained from the subject [SU1] Assessment of task fulfilment		
	[K7_W01] knows and understands construction, building and engineering issues related to building design; principles, solutions, constructions and building materials used in performing complex engineering tasks in the field of architectural and urban design		knows and understands advanced issues related to building technology and installations, covering key, complex issues in architectural, urban and planning design; understands the technical requirements related to the implementation of pro-ecological solutions; is able to select technical solutions that ensure the comfort and safety of building use.		[SW2] Assessment of knowledge contained in presentation		

Subject contents	Course content – lecture		
	1. The designer's role in implementing a sustainable development program.		
	2. Architectural and urban designs as a challenge in the context of a pro-ecological approach and intervention in the natural environment. 3. Energy acquisition and management. 4. Water management. 5. Air management systems. 6. Environmental certifications and standards.		
	Course content – exercises		
	1. The designer's role in implementing a sustainable development program.		
	2. Architectural and urban designs as a challenge in the context of a pro-ecological approach and intervention in the natural environment. 3. Energy acquisition and management. 4. Water management. 5. Air management systems. 6. Environmental certifications and standards.		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	midterm presentation	100.0%	20.0%
	final paper	100.0%	60.0%
	final presentation	0.0%	20.0%
Recommended reading	Basic literature	"New Urban Agenda" Habitat III (ONZ, 2016)	
		UN-Habitat "Planning and Design for Sustainable Urban Mobility" (2013)	
		European Commission "Green Infrastructure (GI) Enhancing Europe's Natural Capital"	
		Farr Douglas, <i>Sustainable Urbanism: Urban Design with Nature</i> (2008)	
		Yudelson Jerry, <i>The Green Building Revolution</i> (2007)	
		Mostafavi, Mohsen & Doherty, Gareth, <i>Ecological Urbanism</i> (2009)	
		Hopkins Owen, <i>The Manifesto House</i> (2025)	
	Supplementary literature	Books, articles, instructions related to selected innovative technologies.	
	eResources addresses		
Example issues/ example questions/ tasks being completed	- Ecological material solutions. - Ecological technical and technological solutions. - Ecological installations in buildings. - Pro-environmental solutions on an urban scale. - Ecological energy sources and systems for their acquisition, use, recovery, and storage (solar energy, wind energy, hydropower, geothermal energy, heat pumps, etc.). - Retention solutions in the light of climate change. - Green roofs and walls, the urban climate, and supporting biodiversity. - Water management in buildings. - Examples and analysis of innovative green building projects.		
Practical activities within the subject	Not applicable		

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