



Subject card

Subject name and code	Pre-diploma study project, PG_00067347						
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				Optional subject group 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	2	ECTS credits				4.0	
Learning profile	general academic profile	Assessment form				assessment	
Conducting unit	Department of Urban Architecture and Waterside Spaces -> Faculty of Architecture -> Faculties of Gdańsk University of Technology						
Name and surname of lecturer (lecturers)	Subject supervisor	dr hab. inż. arch. Jan Cudzik					
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	0.0	0.0	60.0	0.0	60
	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	60	8.0		32.0	100	
Subject objectives	The goal of the project is to develop the students interdisciplinary skills in comprehensively addressing architectural and urban design challenges, integrating theoretical knowledge with practical design capabilities.						
Learning outcomes	Course outcome	Subject outcome			Method of verification		
	[K7_K03] is ready to take responsibility for humanities, social, cultural, architectural and urban values in environmental protection and cultural heritage	is ready to conduct honest self-assessment, formulate constructive criticism regarding architectural and urban planning activities, as well as accept criticism of the solutions he or she presents, respond to criticism in a clear and objective manner, also using arguments referring to the available achievements in the scientific discipline, and use criticism creatively and constructively.			[SK5] Assessment of ability to solve problems that arise in practice		
	[K7_U05] can organize work taking into account all phases of work on the design concept	can effectively use imagination, intuition, creative attitude, and independent thinking to solve complex design problems;			[SU3] Assessment of ability to use knowledge gained from the subject		
	[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	is able to integrate advanced knowledge from various fields of study, including history, history of architecture, history of art and the protection of cultural assets, and spatial management, while solving complex engineering tasks; is able to formulate new ideas and hypotheses, analyze and test novelties related to engineering and research problems in the field of architectural and urban design, as well as spatial planning;			[SU1] Assessment of task fulfilment		

Subject contents	<p>Course content – project</p> <p>Introduction to Design Challenges Discussion of major contemporary challenges in architecture and urbanism: sustainable development, climate adaptation, urban regeneration, heritage protection, and social participation. Analysis of global and local urban trends, including spatial policies and citymanagement models.</p> <p>Architectural Design Methodology Principles of defining design problems at the building, urban ensemble, and landscape scales. Research techniques: context analysis, functional-spatial studies, comparative case studies. Preparation of functional-program briefs and regulatory requirement summaries.</p> <p>Building-Scale Design Programmatic and functional concepts, selection of structural and material solutions, form optimization for energy efficiency, user comfort, and accessibility. Integration of digital technologies with traditional modeling methods. Use of visualization tools and environmental analysis (light, acoustics, thermal performance).</p> <p>Urban and Landscape Design Issues at the street, block, and district scales: public-private interfaces, access to green spaces, mobility and transport, infrastructure networks. Creating public spaces that foster social inclusion. Strategies for regenerating post-industrial and degraded areas.</p> <p>Sustainability and Innovation Implementation of green architecture principles: passive design, renewable energy systems, water management, low-carbon materials. Emerging construction technologies: prefabrication, modularity, and intelligent building management systems. Challenges of accessibility and universal design.</p> <p>Heritage Conservation and Adaptation Methods for inventory and documentation of historic buildings, analysis of historical and cultural values. Strategies for preserving authenticity while adapting structures to new functions. Designing hybrid interventions that merge historic fabric with contemporary additions.</p> <p>Community Engagement and Design Process Participatory techniques: workshops, VR/AR simulations, digital tools for public consultation. The role of dialogue among designers, clients, and end users in shaping the final built environment.</p>														
Prerequisites and co-requisites	<p>Completion of minimum 6 semesters of second-cycle studies in Architecture with passed courses in architectural design and basic knowledge of CAD tools. Knowledge of parametric or algorithmic design fundamentals is welcomed. Student should possess skills in working with graphic and computer programs supporting architectural design. Required completion of at least one design course at master's level and basic knowledge of structural and material issues in architecture. Essential ability for independent organization of design work and capacity for creative thinking in the context of solving complex architectural problems.</p> <p>Additional: Recommended knowledge of parametric design software (e.g., Grasshopper, Dynamo) and basics of visual programming. Preferred competencies in environmental analysis, computer simulations, and architectural project optimization. Additional advantage is English language proficiency enabling use of specialized literature and software in English.</p>														
Assessment methods and criteria	<table border="1"> <thead> <tr> <th data-bbox="448 1368 794 1400">Subject passing criteria</th> <th data-bbox="794 1368 1141 1400">Passing threshold</th> <th data-bbox="1141 1368 1487 1400">Percentage of the final grade</th> </tr> </thead> <tbody> <tr> <td data-bbox="448 1400 794 1433">Case study analysis</td> <td data-bbox="794 1400 1141 1433">50.0%</td> <td data-bbox="1141 1400 1487 1433">20.0%</td> </tr> <tr> <td data-bbox="448 1433 794 1489">Presentation of own research or literature review</td> <td data-bbox="794 1433 1141 1489">40.0%</td> <td data-bbox="1141 1433 1487 1489">40.0%</td> </tr> <tr> <td data-bbox="448 1489 794 1552">Critical essay – literature review on a theoretical topic</td> <td data-bbox="794 1489 1141 1552">50.0%</td> <td data-bbox="1141 1489 1487 1552">40.0%</td> </tr> </tbody> </table>			Subject passing criteria	Passing threshold	Percentage of the final grade	Case study analysis	50.0%	20.0%	Presentation of own research or literature review	40.0%	40.0%	Critical essay – literature review on a theoretical topic	50.0%	40.0%
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Example issues/ example questions/ tasks being completed	<p>Designing a multifunctional academic building incorporating sustainable development principles</p> <p>Analyzing the relationship between the building and its urban context mapping sight lines and circulation routes</p> <p>Adaptive reuse of a historic building complex for cultural functions while respecting conservation values</p> <p>Developing a study-scale spatial model at 1:200 and evaluating its functional performance</p>														
Practical activities within the subject	Not applicable														

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