



Subject card

Subject name and code	Building structures and technologies I, PG_00052633						
Field of study	Architecture						
Date of commencement of studies	October 2025	Academic year of realisation of subject			2026/2027		
Education level	first-cycle studies	Subject group			Obligatory subject group in the field of study		
Mode of study	Full-time studies	Mode of delivery			at the university		
Year of study	2	Language of instruction			English		
Semester of study	4	ECTS credits			2.0		
Learning profile	general academic profile	Assessment form			assessment		
Conducting unit	Department of Technical Fundamentals of Architectural Design -> Faculty of Architecture						
Name and surname of lecturer (lecturers)	Subject supervisor		mgr inż. Tomasz Zybala				
	Teachers						
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	30.0	0.0	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		2.0		18.0	50
Subject objectives	To learn about the technical issues involved in producing an architectural design.						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K6_W01] knows and understands construction problems, building and engineering issues related to building design; principles, solutions, constructions and building materials used in simple engineering tasks in the field of architectural and urban design		The student knows and understands the problems of construction, building and engineering problems associated with building design; principles, solutions, constructions and construction materials used in carrying out simple engineering tasks in architectural and urban planning		[SW3] Assessment of knowledge contained in written work and projects [SW2] Assessment of knowledge contained in presentation		
	[K6_U01] is able to use the experience gained during studies to critically analyze the conditions and formulate conclusions for design in an interdisciplinary context		The student is able to use the experiences gained during the course of study in order to critically analyse conditions and to formulate conclusions for design in an interdisciplinary context		[SU5] Assessment of ability to present the results of task [SU3] Assessment of ability to use knowledge gained from the subject [SU1] Assessment of task fulfilment		
Subject contents	Basic types of building structures, subdivision, definitions. Basic issues related to reinforced concrete and masonry structures. Selected issues of fire safety regulations. Finishing work. Building elements e.g. stairs, façade systems and claddings, glazed walls, curtain walls, suspended ceilings, floors and flooring, etc. suspended ceilings, floors and flooring, etc. Relationship between load and stress and strain in reinforced concrete elements.						
Prerequisites and co-requisites	Knowledge of general construction and materials science						

Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	presentation	60.0%	20.0%
	test	60.0%	80.0%
Recommended reading	Basic literature	<p>Panas J. red., Nowy poradnik majstra budowlanego, Arkady 2012</p> <p>Żenczykowski W., Budownictwo ogólne, Warszawa, Arkady, 1986.</p> <p>Różycki S., Budownictwo ogólne 3-4, Gdańsk 1966 Budownictwo ogólne, T 1 Materiały i wyroby budowlane, Warszawa Arkady, 2007 Budownictwo ogólne, T 3 Elementy budynków. Podstawy projektowania, Warszawa Arkady, 2008 Budownictwo ogólne, T 4 Konstrukcja budynków, Warszawa Arkady, 2014</p> <p>Łapko A.: Projektowanie konstrukcji żelbetowych, Arkady, Warszawa 2001</p> <p>Łapko A., Jensen B. Ch.: Podstawy projektowania i algorytmy obliczeń konstrukcji żelbetowych, Arkady, Warszawa 2005</p>	
	Supplementary literature	<p>P. Hyks, M. Gaborik, O. Vrana, Schody, Arkady 1984</p> <p>Markiewicz Przemysław, Budownictwo ogólne dla architektów, Archi-Plus 2011 (wyd. 4)</p> <p>Markiewicz Przemysław, Detale projektowe dla architektów, Archi-Plus 2010 (wyd. 1)</p> <p>Hoła J., Pietraszek P., Schabowicz K.: Obliczenia budynków wznoszonych tradycyjnie, Dolnośląskie Wydawnictwo Edukacyjne, Wrocław 2006.</p> <p>Starosolski W., Konstrukcje żelbetowe, Wydawnictwo Naukowe PWN, W-wa 2007.</p> <p>Kobiak J., Stachurski W.: Konstrukcje żelbetowe, Arkady, Warszawa 1984.</p>	
	eResources addresses	Adresy na platformie eNauczanie:	
Example issues/ example questions/ tasks being completed	<ol style="list-style-type: none"> <li>1. Main stair shape / steps finishing (give examples of materials)</li> <li>2. Reasons for using suspended ceilings / types of suspended ceilings</li> <li>3. Why do we make partition walls?</li> <li>4. Partition walls construction types.</li> </ol>		
Work placement	Not applicable		

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