



Subject card

Subject name and code	Construction Project II, PG_00055847						
Field of study	Architecture						
Date of commencement of studies	October 2024		Academic year of realisation of subject		2026/2027		
Education level	first-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	3		Language of instruction		Polish		
Semester of study	5		ECTS credits		3.0		
Learning profile	general academic profile		Assessment form		assessment		
Conducting unit	Department of Technical Fundamentals of Architectural Design -> Faculty of Architecture -> Faculties of Gdańsk University of Technology						
Name and surname of lecturer (lecturers)	Subject supervisor		dr inż. Karol Grębowski				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	0.0	0.0	45.0	0.0	45
	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	45		5.0		25.0	75
Subject objectives	The student recognizes the basic problems in the field of solving problems related to building structures on the basis of EC 1 to 6.Presents knowledge on the adoption of material solutions, determination of the location of structural axes, distribution of the column / wall grid, assumption of initial dimensions of the foundations, calculation of the initial dimensions of the floor slab columns, ribs, binder according to the adopted material, determination of the ceiling support directions (unidirectional / bidirectional)						
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		has knowledge of technical issues related to the design and implementation of architectural structures and basic knowledge of related engineering industries		[SW3] Assessment of knowledge contained in written work and projects		
	[K6_U04] is able to use analytical methods to formulate and solve project tasks		is able to develop solutions for individual building structures and elements in terms of technology, construction and materials; is able to prepare architectural and construction documentation at appropriate scales in relation to the conceptual architectural design; is able to use analytical methods to formulate and solve design tasks		[SU4] Assessment of ability to use methods and tools		

Subject contents	Course content – project Preparation of a structural designTechnical and construction descriptionDrawing K-01: Foundation plan, scale 1:50 or 1: 100Drawing K-02: Garage / basement plan scale 1:50 or 1: 100Drawing K-03: Ground floor plan, scale 1:50 or 1: 100Drawing K-04: Typical floor plan, scale 1:50 or 1: 100Drawing K-05: Roof plan, scale 1:50 or 1: 100Drawing K-06: Building cross-section scale 1:50 or 1: 100Based on knowledge of:- accepting material solutions - determining the position of structural axes - arranging the grid of columns / walls - adopting the initial dimensions of strip footings - adopting the initial dimensions of strip footings - taking the initial dimensions of walls - marking ceiling rims - marking door and window lintels - calculating the initial dimensions of columns according to the adopted material - calculating the initial dimensions of the ceiling slab according to the adopted material - calculating the preliminary dimensions of the ceiling rib according to the adopted material - calculating the initial dimensions of the ceiling joist according to the adopted material - determining the directions of the ceiling support (one-way / two-way) + rules of technical drawing (line thickness, font size, etc.) Design of building elements- Issues in the field of construction related to the implementation of a construction design in the technical part (projections and cross-sections), and solution of a construction detail of a selected part of the building containing 3-4 nodes depending on the individual situation (e.g. glass facade, facade, roof, roof glazing, skylights) , stairs, etc.) in the scale of the detail. The basis of the study is your own architectural conceptual design made during classes in architectural design.		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
		60.0%	100.0%
Recommended reading	Basic literature	Eurocode 0: Design of structuresEurocode 1: Actions on structuresEurocode 2: Design of reinforced concrete structuresEurocode 3: Design of steel structuresEurocode 5: Design of wooden structuresEurocode 6: Design of masonry structuresPN-B-01040 Building construction drawing. General rulesHoła J., Pietraszek P., Schabowicz K. : Calculation of traditionally erected buildings, Dolnośląskie Wydawnictwo Edukacyjne, Wrocław 2006.Starosolski W., Reinforced concrete structures, volumes I, II and III, Polish Scientific Publishers PWN, Warsaw 2007.Łapko A. : Designing reinforced concrete structures, Arkady, Warsaw 2001.Łapko A., Jensen B. Ch. : Design basics and algorithms for calculating reinforced concrete structures, Arkady, Warsaw 2005.Knauff M., Calculation of reinforced concrete structures according to Eurocode 2, PWN, Warsaw 2012, 2015; Panas J. ed., New construction foreman's guide, Arkady 2012.Żenczykowski W., General construction, Warsaw, Arkady, 1986.Różycki S., General construction 3-4, Gdańsk 1966General construction, T 1 Building materials and products, Warsaw Arkady, 2007General construction, T 3 Building elements. Fundamentals of Design, Warsaw Arkady, 2008General construction, T 4 Construction of buildings, Warsaw Arkady, 2014Ordinance of the Minister of Infrastructure of April 12, 2002 on technical conditions to be met by buildings and their location, i.e. Journal of Laws No. 2019 item 1065Regulation of the Minister of Transport, Construction and Maritime Economy on the detailed scope and form of a construction project, Journal of Laws No. 2020 item 1609	
	Supplementary literature	1. Borusiewicz W. Building structures for architects, Arkady, Warsaw 1973.2. Mielczarek Z. Modern structures in general construction, Arkady, Warsaw 2001.3. Michalak H. Multi-station garages. Design and implementation, Arkady, Warsaw 2009. P. Hyks, M. Gaborik, O. Vrana, Stairs, Arkady 1984Markiewicz Przemysław, General construction for architects, ArchiPlus 2011 (4th ed.)Markiewicz Przemysław, Design details for architects, ArchiPlus2010 (1st edition)	
	eResources addresses		

Example issues/ example questions/ tasks being completed	
Practical activities within the subject	Not applicable

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