

## 关。GDAŃSK UNIVERSITY 创 OF TECHNOLOGY

## Subject card

Subject name and code	Construction and Physics of Building Structures, PG_00044686								
Field of study	Civil Engineering								
Date of commencement of studies	October 2021		Academic year of realisation of subject			2022/2023			
Education level	first-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	Part-time studies		Mode of delivery			at the university			
Year of study	2		Language of instruction			Polish			
Semester of study	3		ECTS credits			5.0			
Learning profile	general academic profile		Assessment form			assessment			
Conducting unit	Department of Building Structures and Material Engineering -> Faculty of Civil and Environmental Engineering							ntal	
Name and surname	Subject supervisor		dr hab. inż. Ewelina Korol						
of lecturer (lecturers)	Teachers								
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory Project		t	Seminar	SUM	
	Number of study hours	20.0	0.0	0.0 10.0			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		5.0		90.0		125	
Subject objectives	Acquiring knowledge in the construction of residential and communal buildings, as well as the basics of designing buildings and construction works, managing construction works; acquainting with technologies and principles of building organization, computer techniques and modern technologies; developing the ability to identify significant problems in the construction industry; preparing the graduate for work as independent as well as in a team and education at the second level of studies.								
Learning outcomes	Course outcome		Subject outcome		Method of verification				
	[K6_W06] knows the rules of constructing and dimensioning of building elements of: steel, reinforced concrete, wood, masonry.		The student knows the principles of construction and dimensioning of building construction elements: such as metal, reinforced concrete, wooden, and masonry.						
	[K6_U06] can design steel, concrete (including reinforced), wood and masonry construtions and its elements		The student knows how to design selected elements and typical metal, reinforced concrete, composite, wooden and wall constructions						
	[K6_W09] knows the principles of determining of loads acting on basic constructions (e.g. general, industrial, bridge, water, marine, transport objects) and rules of its constructing		The student knows the rules for determining the loads of selected construction objects (general, industrial, bridge, water and sea construction or transportation) and the principles of their construction design.						
	[K6_U08] can calculate the energy balance of a building		The student can prepare an energy balance of a building.						
	[K6_W12] Has basic knowledge on building physics, including heat and moisture migration in buildings, acoustics and energy demand		The student knows the basics of building physics regarding heat and moisture migration in buildings, their acoustics and determining the energy demand of buildings						

Subject contents	<ul> <li>Basic knowledge of the construction law. • Basic definitions of general construction. • Requirements for construction and construction drawings.</li> <li>• Construction systems. • Dimensional coordinates in buildings. • Basic knowledge about technical conditions for buildings and their location. • Preliminary information of walls, window's and door lintels, ceilings, roofs, terraces, balconies, loggias and stairs.</li> </ul>						
Prerequisites and co-requisites	Basic knowledge about technical drawing, building materials, building mechanics and material strength.						
Assessment methods	Subject passing criteria	Passing threshold	Percentage of the final grade				
and criteria	Tests	60.0%	50.0%				
	Project	60.0%	50.0%				
Recommended reading	Basic literature       1. Kobiak J., Stachurski W.: Konstrukcje żelbetowe t.1 Warszawa: Arkady 1984. 2. Michalak H., Pyrak S., Domy jednorodzinne – konstruowanie i obliczenia: Arkady 2005. 3. Niedostatkiewicz M., Majewski T., Skuza M., Bobiński J.: Budownictwo ogólne – Katalog rozwiązań konstrukcyjno – materiałowych, Skrypt PG. 4. Pierzchlewicz J., Jarmontowicz R.: Budynki murowane. Warszawa: Arkady 1994.         Supplementary literature       1. Żenczykowski W.: Budownictwo ogólne, t. 2/1. Warszawa: Arkady						
		1990 2. Praca zbiorowa: Poradnik majstra budowlanego. Warszawa: Arkady 1985. 3. Praca zbiorowa: Poradnik inżyniera i technika budowlanego, t. V. Warszawa: Arkady 1986. 4. Prawo budowlane.					
	eResources addresses	Resources addresses Adresy na platformie eNauczanie:					
Example issues/ example questions/ tasks being completed							
Work placement	Not applicable						