GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Bulilding structures and technologies I, PG_00052794		
Field of study	Architecture		
Date of commencement of studies	October 2020	Academic year of realisation of subject	2021/2022
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	Full-time studies	Mode of delivery	at the university
Year of study	2	Language of instruction	Polish
Semester of study	4	ECTS credits	2.0
Learning profile	general academic profile	Assessment form	exam
Conducting unit	Department of Technical Fundamentals of Architecture Design -> Faculty of Architecture		
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. arch. Marek Sztafrowski	
	Teachers	dr inż. arch. Marek Sztafrowski dr inż. Natalia Lasowicz	

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

Address on the e-learning platform: https://enauczanie.pg.edu.pl/moodle/course/view.php?id=22545
Adresy na platformie eNauczanie:

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

Learning about technical issues related to the implementation of a construction design, technical design.

Understanding the basic issues related to reinforced concrete and masonry structures, knowledge of the relationship between loads and stresses and deformations in simple elements made of reinforced concrete.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[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	Gaining knowledge about the rules design in an interdisciplinary context	[SU2] Assessment of ability to analyse information [SU3] Assessment of ability to use knowledge gained from the subject
[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	Knows and understands construction, building and engineering problems related to the design of buildings; principles, solutions, structures and building materials used in the performance of simple engineering tasks in the field of architectural design	[SW1] Assessment of factual knowledge [SW3] Assessment of knowledge contained in written work and projects

Subject contents	Basic types of building structures, division, definitions. Basic issues related to reinforced concrete and masonry structures. Pre-design work. Architectural and construction project. Selected issues of fire safety regulations.Finishing works. Building elements, e.g. stairs, facade systems and cladding, glazed walls, curtain walls, suspended ceilings, floors and floors, etc. Relations between load, stresses and deformation in reinforced concrete elements.	
Prerequisites and co-requisites		
Assessment methods and criteria	Subject passing criteria: Exam Passing threshold: 51.0% Percentage of the final grade: 100.0%	
Recommended reading	Basic literature	Panas J. red., Nowy poradnik majstra budowlanego, Arkady 2012. Żenczykowski W., Budownictwo ogólne, Warszawa, Arkady, 1986. 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 Łapko A.: Projektowanie konstrukcji żelbetowych, Arkady, Warszawa 2001 Łapko A., Jensen B. Ch.: Podstawy projektowania i algorytmy obliczeń konstrukcji żelbetowych, Arkady, Warszawa 2005. PNB-03264/2002 Konstrukcje betonowe, żelbetowe i sprężone. Obliczenia statyczne i projektowanie. PN-B-03002/1999 Konstrukcje murowe niezbrojone. Projektowanie i obliczenia statyczne. Rozporządzenia Ministra Infrastruktury z 12.04.2002 w sprawie warunków technicznych, jakim powinny odpowiadać budynki i ich usytuowanie tj. Dz.U. 2019 poz. 1065 Rozporządzenie Ministra Transportu, Budownictwa i Gospodarki Morskiej w sprawie szczegółowego zakresu i formy projektu budowlanego Dz.U. 2020 poz. 1609

	Supplementary literature	Włodarczyk W.: Przykłady obliczeń elementów i połączeń kons.stal., WSiP, W-awa 2000, Bogucki W.: Budownictwo stalowe, Arkady, Warszawa 1976, Mielczarek Z.: Budownictwo drewniane, Arkady, Warszawa 1994, Niżyński W.: Przykłady obliczeń konstrukcji budowlanych z drewna, WSiP, W-awa 1994, Hoła J., Pietraszek P., Schabowicz K.: Obliczanie budynków wznoszonych tradycyjnie, Wrocław 2006, P. Hyks, M. Gaborik, O. Vrana, Schody, Arkady 1984 Markiewicz Przemysław, Budownictwo ogólne dla architektów, ArchiPlus 2011 (wyd. 4) Markiewicz Przemysław, Detale projektowe dla architektów, ArchiPlus2010 (wyd. 1)
	eResources addresses	
Example issues/ example questions/ tasks being completed	Present the rules for applying technology in architectural design	
Work placement	Not applicable	