GDAŃSK UNIVERSITY 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 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	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		
Name and surname of lecturer (lecturers)	Subject supervisor	mgr inż. Maria Krogulecka	
	Teachers		

Lesson types and methods of instruction

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	20.0	0.0	0.0	10.0	0.0	30

E-learning hours included: 0.0

Adresy na platformie eNauczanie:

Budownictwo ogólne z fizyką budowli I - 21/22 - Moodle ID: 17574 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=17574

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_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	
[K6_U08] can calculate the energy balance of a building	The student can prepare an energy balance of a building.	
[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_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_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.	

<table>
<tr><td>Subject contents</td><td>• Basic knowledge of the construction law. • Basic definitions of general construction. • Requirements for construction and construction drawings. • 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.</td></tr>
<tr><td>Prerequisites and co-requisites</td><td>Basic knowledge about technical drawing, building materials, building mechanics and material strength.</td></tr>
<tr><td>Assessment methods and criteria</td><td>
<table>
<tr><th>Subject passing criteria</th><th>Passing threshold</th><th>Percentage of the final grade</th></tr>
<tr><td>Project</td><td>60.0%</td><td>50.0%</td></tr>
<tr><td>Tests</td><td>60.0%</td><td>50.0%</td></tr>
</table>
</td></tr>
<tr><td>Recommended reading</td><td>
<table>
<tr><td>Basic literature</td><td>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.</td></tr>
<tr><td>Supplementary literature</td><td>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.</td></tr>
<tr><td>eResources addresses</td><td>Budownictwo ogólne z fizyką budowli I - 21/22 - Moodle ID: 17574
https://enauczanie.pg.edu.pl/moodle/course/view.php?id=17574</td></tr>
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<tr><td>Example issues/ example questions/ tasks being completed</td><td></td></tr>
<tr><td>Work placement</td><td>Not applicable</td></tr>
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