



## Subject card

Subject name and code	Building Materials , PG_00044000						
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	Full-time studies		Mode of delivery		at the university		
Year of study	2		Language of instruction		Polish		
Semester of study	3		ECTS credits		2.0		
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		dr hab. inż. Michał Wójcik				
	Teachers		dr inż. Hubert Byliński  mgr inż. Sławomir Dobrowolski  mgr inż. Arkadiusz Jenta  mgr inż. Aleksander Grabowski  dr hab. inż. Michał Wójcik  dr inż. Jan Suchorzewski				
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	15.0	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		5.0		15.0	50
Subject objectives	After the Building Materials course the student will be able to: memorize and define the physical and mechanical properties of the building materials and classify them to one of the basic group; explain the processes, which take place in the building materials; interpret and apply the standards concerning the quality and properties of building materials, apply various building materials.						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K6_W13] Knows the most popular construction materials and basics of technology of its fabrication		The student knows the most commonly used building materials and the basic elements of their production technology.				
	[K6_U12] knows rules of manufacturing and application of building materials, is able to properly choose tchem; is able to make simple laboratory experiments for judging quality of building materials		The student knows the rules of manufacture and use and is able to select construction materials; can perform simple laboratory experiments leading to the assessment of the quality of used building materials				
Subject contents	Technical properties of building materials. Natural stone materials. Ceramic building products. Lightweight aggregates, cavernous concrete, cellular concrete, foamed concrete. Products based on lime, Portland cement , and gypsum binders. Glass properties and products used in construction industry. Wood and wooden building products. Materials for thermal and sound insulation. Bituminous and plastic materials for damp proofing. Plastic properties, classification, products, usage in construction industry. Materials for protection against ionising radiation. Painting materials and various finishing materials.						
Prerequisites and co-requisites	Basic knowledge of physics and chemistry.						

Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Written test.	50.0%	50.0%
	Oral test	50.0%	50.0%
Recommended reading	Basic literature	Lecture notes published on the website.	
	Supplementary literature	Stefańczyk B., <i>Budownictwo ogólne</i> , tom 1, Warszawa: Arkady 2005.  Szymański E., <i>Materiałoznawstwo budowlane z technologią betonu</i> , cz. 1. i 2., Warszawa: Oficyna Wydawnicza Politechniki Warszawskiej, 2005.  Żenczykowski W., <i>Budownictwo ogólne</i> , t. 1., Warszawa: Arkady, 1992.	
	eResources addresses	Adresy na platformie eNauczanie:	
Example issues/ example questions/ tasks being completed	Name the construction product, describe production technology and other materials used in its manufacture, specify its basic physical and mechanical properties and give its application in construction.		
Work placement	Not applicable		