



Subject card

Subject name and code	Refurbishment and modernization of buildings, PG_00044224						
Field of study	Civil Engineering						
Date of commencement of studies	October 2020	Academic year of realisation of subject			2023/2024		
Education level	first-cycle studies	Subject group			Optional subject group		
Mode of study	Full-time studies	Mode of delivery			at the university		
Year of study	4	Language of instruction			Polish		
Semester of study	7	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	dr hab. inż. Łukasz Skarzyński					
	Teachers						
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	30.0	15.0	0.0	15.0	0.0	60
	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	60	5.0		60.0		125
Subject objectives	Students gain ability to determine reasons of structure damage. Student knows how to prepare project of strengthening of the structures.						
Learning outcomes	Course outcome	Subject outcome			Method of verification		
	[K6_U06] can design steel, concrete (including reinforced), wood and masonry constructions and its elements	Student is able to design the renovation and reinforcement of selected elements and typical structures			[SU4] Assessment of ability to use methods and tools		
	[K6_W06] knows the rules of constructing and dimensioning of building elements of: steel, reinforced concrete, wood, masonry.	Students is familiar with the principles of construction and dimensioning of elements of renovated building structures: metal, reinforced concrete, wood, masonry			[SW1] Assessment of factual knowledge		
	[K6_U01] can evaluate and list the loads acting on constructions	Students is able to evaluate and list the loads acting on renovated buildings			[SU3] Assessment of ability to use knowledge gained from the subject		
Subject contents	Classification of repairs, basic elements of building durability, inspections of buildings, repair documentation. Technical conditions for building exploitation. Reinforcement of bearing capacity elements of walls, slab floors, roof floors, roofs, foundations and stairs.						
Prerequisites and co-requisites	No requirements						
Assessment methods and criteria	Subject passing criteria	Passing threshold			Percentage of the final grade		
	Project	50.0%			40.0%		
	Midterm colloquium	50.0%			60.0%		
Recommended reading	Basic literature	1. Masłowski E., Spizewska D.: Wzmacnianie konstrukcji budowlanych. Arkady 1999. 2. Małyżko L., Orłowicz R.: Konstrukcje murew zarysowania i naprawy. Wydawnictwo Uniwersytetu Warmińsko-Mazurskiego w Olsztynie 2000.					
	Supplementary literature	No requirements					
	eResources addresses	Adresy na platformie eNauczanie:					
Example issues/ example questions/ tasks being completed							
Work placement	Not applicable						