



## Subject card

Subject name and code	Development the Recyclable Waste in the Construction , PG_00052981						
Field of study	Chemistry in Construction Engineering						
Date of commencement of studies	February 2023		Academic year of realisation of subject		2022/2023		
Education level	second-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	1		Language of instruction		Polish		
Semester of study	1		ECTS credits		3.0		
Learning profile	general academic profile		Assessment form		assessment		
Conducting unit	Faculty of Chemistry						
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. inż. Anna Zielińska-Jurek				
	Teachers						
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	0.0	15.0	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		9.0		36.0	75
Subject objectives	aim of the course is to know about the development of secondary raw materials in the construction industry						
Learning outcomes	Course outcome	Subject outcome			Method of verification		
	K7_W01	has knowledge of examining the structure and texture of selected building materials and their physicochemical properties			[SW3] Assessment of knowledge contained in written work and projects		
	K7_U10	the student is able to propose technology and make a schematic diagram of a selected technology for the production of building materials from recycled materials			[SU3] Assessment of ability to use knowledge gained from the subject		
	K7_W04	the student has knowledge of obtaining and characterizing ceramic and polymer materials, concretes, and wood-based materials.			[SW3] Assessment of knowledge contained in written work and projects		
	K7_W05	has knowledge of the technology of resource management in construction, basic knowledge of the technology of production of building materials			[SW3] Assessment of knowledge contained in written work and projects		
	K7_U13	has knowledge of the basic legal regulations in the field of secondary raw materials management in construction			[SU2] Assessment of ability to analyse information		
Subject contents	Development of asphalt concrete rubble. The use of fly ash. The use of phosphogypsum. Development of steel scrap.						
Prerequisites and co-requisites	knowledge of chemistry and regulations in recycling						
Assessment methods and criteria	Subject passing criteria	Passing threshold		Percentage of the final grade			
	project	60.0%		40.0%			
	written test	60.0%		60.0%			

Recommended reading	Basic literature	Chemia w inżynierii materiałów budowlanych. T.Szymura, ISBN: 978-83-62596-94-2, Politechnika Lubelska, 2012.
	Supplementary literature	none
	eResources addresses	Adresy na platformie eNauczanie:
Example issues/ example questions/ tasks being completed		
Work placement	Not applicable	