



Subject card

Subject name and code	Exploitation of Polymeric Materials in Construction, PG_00052985						
Field of study	Chemistry in Construction Engineering						
Date of commencement of studies	February 2024	Academic year of realisation of subject			2023/2024		
Education level	second-cycle studies	Subject group			Obligatory subject group 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	Department of Polymers Technology -> Faculty of Chemistry						
Name and surname of lecturer (lecturers)	Subject supervisor		prof. dr hab. inż. Janusz Datta				
	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	0.0	15.0	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		4.0		41.0	75
Subject objectives	To gain the knowledge in polymer chemistry and technology as well as their practical applications in civil engineering.						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	K7_W04		Student knows the technology and properties of the materials applied in civil engineering.		[SW1] Assessment of factual knowledge [SW2] Assessment of knowledge contained in presentation		
	K7_U01		Student knows which polymers are currently applied in civil engineering, which are the current trends in the field, how to solve basic construction problems using ceramics, polymers, metals, composites.		[SU2] Assessment of ability to analyse information		
	K7_U06		Student knows how to estimate the suitability of the materials for specific applications.		[SU1] Assessment of task fulfilment [SU2] Assessment of ability to analyse information [SU5] Assessment of ability to present the results of task		
Subject contents	To gain the knowledge in polymer chemistry and technology as well as their practical applications in civil engineering.						
Prerequisites and co-requisites	Basic information of polymer chemistry. Type of macromolecules that can be applied in technology. Polymer membranes for different applications. Biodegradable materials and their application, composites.						
Assessment methods and criteria	Subject passing criteria		Passing threshold		Percentage of the final grade		
	Seminar		100.0%		40.0%		
	Lecture		60.0%		60.0%		
Recommended reading	Basic literature		Florjańczyk Z.: Chemia polimerów. Oficyna Wydawnicza Politechniki Warszawskiej, Warszawa 1995.				
			Żuchowska I.: Polimery konstrukcyjne. WNT, Warszawa 1992				
	Supplementary literature		Polimery, Przemysł Chemiczny				

	eResources addresses	Adresy na platformie eNauczenie:
Example issues/ example questions/ tasks being completed	Polyesters, polyolefins, epoxy resins, polyurethanes, composites, nanocomposites	
Work placement	Not applicable	