



Subject card

Subject name and code	Technologies Polymer Composites, PG_00039105						
Field of study	Chemistry in Construction Engineering						
Date of commencement of studies	February 2023	Academic year of realisation of subject			2023/2024		
Education level	second-cycle studies	Subject group			Optional subject group 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 Polish		
Semester of study	3	ECTS credits			2.0		
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	dr hab. inż. Łukasz Piszczyk					
	Teachers						
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	The aim of the course is to familiarize students with the methods of production of polymer composite materials .						
Learning outcomes	Course outcome	Subject outcome			Method of verification		
	K7_W10	The student has knowledge in the field of business, knows the principles of creation and development of forms of individual entrepreneurship, quality management and organization of work and integrated management, has knowledge of basic legal aspects concerning the management of chemical substances with particular emphasis on chemical products			[SW3] Assessment of knowledge contained in written work and projects [SW2] Assessment of knowledge contained in presentation		
	K7_U02	Students will be able to communicate using a variety of techniques in a professional environment.			[SU2] Assessment of ability to analyse information [SU3] Assessment of ability to use knowledge gained from the subject [SU4] Assessment of ability to use methods and tools		
	K7_K03	The student on awareness of the social role of the university and understands the need to communicate scientific developments in the field of building chemistry.			[SK4] Assessment of communication skills, including language correctness [SK2] Assessment of progress of work [SK5] Assessment of ability to solve problems that arise in practice		
Subject contents	Polymer composites, polymer composites morphology, fillers, nanofillers (carbon nanotubes, graphene, clays)						

Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Passing the laboratories	60.0%	50.0%
	Exam	60.0%	50.0%
Recommended reading	Basic literature	Basic publications on polymer composites based on the WoS database.	
	Supplementary literature	- Wacław Królikowski, Polimerowe kompozyty konstrukcyjne, Wydawnictwo PWN, 2018 - Anna Boczkowska, Grzegorz Krzesiński, Kompozyty i techniki ich wytwarzania, Oficyna Wydawnicza Politechniki Warszawskiej, 2016	
	eResources addresses	Adresy na platformie eNauczanie:	
Example issues/ example questions/ tasks being completed	-		
Work placement	Not applicable		