



Subject card

Subject name and code	Group project II, PG_00063392						
Field of study	Technologies for Industry 5.0						
Date of commencement of studies	October 2024	Academic year of realisation of subject				2026/2027	
Education level	first-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	3	Language of instruction				English	
Semester of study	6	ECTS credits				8.0	
Learning profile	general academic profile	Assessment form				assessment	
Conducting unit	Division of Electrochemistry and Surface Physical Chemistry -> Institute of Nanotechnology and Materials Engineering -> Faculty of Applied Physics and Mathematics						
Name and surname of lecturer (lecturers)	Subject supervisor	dr hab. inż. Jacek Ryl					
	Teachers						
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	0.0	0.0	100.0	0.0	100
	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	100	10.0		90.0	200	
Subject objectives	After this course Student has a broad knowledge of the issues, which concerns about the project. Student has the ability of organization and planning group tasks. The student gains the ability to cooperate with others and acquire interpersonal communication skills. The student acquires the skills associated with the preparation of the technical documentation of the project. Student is able to define the purpose and objectives of the planned activities and can arrange a schedule sentences.						
Learning outcomes	Course outcome	Subject outcome			Method of verification		
	[K6_U06] performs analysis, exploration and cleaning of data sets, can use statistical models and machine learning models, integrate various analytical, management and data storage tools	Is able to analyze the correct functioning and make corrections to the tool proposed as part of the project implementation.			[SU5] Assessment of ability to present the results of task [SU2] Assessment of ability to analyse information		
	[K6_K02] makes decisions independently, carries out a critical assessment of own actions and actions of managed teams, is ready to make decisions and accept responsibility for the consequences of these actions	The student is able to identify and make decisions necessary to solve a practical problem.			[SK5] Assessment of ability to solve problems that arise in practice [SK3] Assessment of ability to organize work [SK1] Assessment of group work skills		
	[K6_K03] effectively, clearly and unambiguously conveys information, describes activities and communicates their results and opinions of a specialist engineer using appropriate communication methods and tools	The student is able to function within a group, communicate the results of his/her work, and obtain missing technical information.			[SK3] Assessment of ability to organize work [SK1] Assessment of group work skills		
	[K6_U03] has the ability to plan, prepare and carry out engineering activities using practical knowledge and understanding of the specificity of materials, devices and tools, processes and technologies, and prepare a substantive report	The student is able to organize his/her work and solve given problems using acquired tools and methods characteristic for Industry 5.0 Technology			[SU3] Assessment of ability to use knowledge gained from the subject [SU4] Assessment of ability to use methods and tools [SU2] Assessment of ability to analyse information		

Subject contents	<p>Introduction to problem solving in groups. Clear definition of the problem to be solved, its location in the surrounding technical environment and expected results. Discussion of the principles of working in a group, e.g. assigning roles and responsibilities and establishing the principles of communication and cooperation and ways of obtaining missing information. Discussion of the role of non-technical aspects and constraints, e.g. legal or economic.</p> <p>Preparation of a project schedule. Identification, implementation and implementation of the solution for the posed problem. Conducting tests and correcting any errors. Preparation of a final report / user manual / project description. Demonstration.</p>		
Prerequisites and co-requisites	Knowledge of data engineering, programming basics, and basic physics, chemistry, and electronics		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Project submission	60.0%	100.0%
Recommended reading	Basic literature	Depending on the given research problem	
	Supplementary literature	-	
	eResources addresses	Adresy na platformie eNauczenie:	
Example issues/ example questions/ tasks being completed			
Work placement	Not applicable		

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