



Subject card

Subject name and code	Electrochemistry II, PG_00039817						
Field of study	Materials Engineering, Materials Engineering, Materials Engineering						
Date of commencement of studies	October 2022		Academic year of realisation of subject		2024/2025		
Education level	first-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	3		Language of instruction		Polish		
Semester of study	6		ECTS credits		2.0		
Learning profile	general academic profile		Assessment form		assessment		
Conducting unit	Department of Electrochemistry, Corrosion and Materials Engineering -> Faculty of Chemistry						
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. inż. Paweł Ślepski				
	Teachers						
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	0.0	30.0	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		3.0		17.0	50
Subject objectives	Examination of principal electrochemical processes using various measuring techniques.						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	K6_W02		The student is able to choose the appropriate measurement technique for material analysis		[SW3] Assessment of knowledge contained in written work and projects		
	K6_U01		Student is able to carry out electrochemical measurements		[SU3] Assessment of ability to use knowledge gained from the subject		
	K6_W06		Student understands principal electrochemical techniques		[SW1] Assessment of factual knowledge		
Subject contents	1. Electrical equivalent circuits 2. Reference electrodes 3. Thermodynamic stability of water 4. Electric double layer 5. Hydrogen evolution 6. Chronopotentiometry 7. Chronowoltamperometry I 8. Electrochemical impedance spectroscopy (EIS) I 9. EIS II 10. Chronowoltamperometry II 11. Lead acid batteries 12. Electropolymerization						
Prerequisites and co-requisites	Completion of the Electrochemistry I course						
Assessment methods and criteria	Subject passing criteria		Passing threshold		Percentage of the final grade		
	tests		55.0%		50.0%		
	raports		60.0%		50.0%		
Recommended reading	Basic literature		- materials available at www.enauczanie.pg.edu.pl (in Polish)				
	Supplementary literature		Elektrochemia I lectures				
	eResources addresses		Adresy na platformie eNauczanie:				

Example issues/ example questions/ tasks being completed	
Work placement	Not applicable