GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Corossion monitoring, PG_00048572		
Field of study	Chemical Technology		
Date of commencement of studies	October 2021	Academic year of realisation of subject	2024/2025
Education level	first-cycle studies	Subject group	Optional subject group
Mode of study	Full-time studies	Mode of delivery	at the university
Year of study	4	Language of instruction	Polish
Semester of study	7	ECTS credits	3.0
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	prof. dr hab. inż. Juliusz Orlikowski	
	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	2.0	43.0	75

Subject objectives

Mastering corrosion monitoring methods : linear polarization , resistometric method , the method coupon

Learning outcomes

Course outcome	Subject outcome	Method of verification
K6_W07	Students know the classification and standard of construction materials	[SW1] Assessment of factual knowledge

Subject contents

Corrosion monitoring: linear polarization method electric resistance method coupon method, electrochemical noise mesaurements. Using electrochemical impedance spectroscopy in corrosion monitoring. Galavanic current sensors. Analytical methods in corrosion monitoring.

Prerequisites and co-requisites

Knowledge of electrochemistry and measurements of resistance. Basic knowledge of corrosion

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
Practical exercise	60.0%	40.0%
Written exam	60.0%	60.0%

Recommended reading

Basic literature	G. Wranglen - Podstawy korozji i ochrony metali. WNT Warszawa 1975 H.H. Uhlig Ochrona przed korozja, WNT Warszawa 1976 R. Winston Revie, Uhlig's Corrosion Handbook, 3rd Edition, Wiley
Supplementary literature	No requirements
eResources addresses	Adresy na platformie eNauczanie:

Example issues/ example questions/ tasks being completed

1. In which environments is LPR corrosion monitoring performed?2. What is the difference between instantaneous and moderate corrosion monitoring?3. What is the accuracy of ultrasonic corrosion monitoring?

Work placement

Not applicable