GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Corrosion Monitoring and NDT, PG_00048914		
Field of study	Chemistry in Construction Engineering		
Date of commencement of studies	October 2023	Academic year of realisation of subject	2025/2026
Education level	first-cycle studies	Subject group	
Mode of study	Full-time studies	Mode of delivery	at the university
Year of study	3	Language of instruction	Polish
Semester of study	5	ECTS credits	3.0
Learning profile	general academic profile	Assessment form	assessment
Conducting unit	Department of Corrosion and Electrochemistry -> Faculty of Chemistry -> Wydziały Politechniki Gdańskiej		
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	5.0	40.0	75

Subject objectives

Mastering the theoretical and practical basis for the nodestructive testing and corrosion monitoring

Learning outcomes

Course outcome	Subject outcome	Method of verification
K6_U04	Ability to use NDT measurement methods to apply various defects	[SU1] Assessment of task fulfilment
K6_W08	Ability to apply appropriate corrosion monitoring techniques to obtain optimal measurement results	[SW1] Assessment of factual knowledge

Subject contents

Nondestructive testing: visual methods magnetic particle testing radiographic testing acoustic emission Corrosion monitoring: linear polarization method electric resistance method coupon method electrochemical noise

Prerequisites and co-requisites

Knowledge of electrochemistry and measurements of resistance

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
Written exam	60.0%	50.0%
Practical exercise	60.0%	50.0%

Recommended reading

Basic literature	G. Wranglen – podstawy korozji i ochrony metali. WNT, Warszawa 1975 H.H. Uhlig – Ochrona przed korozją, WNT, Warszawa 1976
Supplementary literature	See: www.korozja.pl
eResources addresses	

Example issues/ example questions/ tasks being completed

Theoretical and practical aspects of diagnosis of corrosion and corrosion monitoring

Work placement

Not applicable

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