GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	, PG_00052341		
Field of study	Chemical Technology		
Date of commencement of studies	October 2021	Academic year of realisation of subject	2023/2024
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	Polish
Semester of study	6	ECTS credits	2.0
Learning profile	general academic profile	Assessment form	exam
Conducting unit	Department of Electrochemistry, Corrosion and Materials Engineering -> Faculty of Chemistry		
Name and surname of lecturer (lecturers)	Subject supervisor	prof. dr hab. inż. Kazimierz Darowicki	
	Teachers	prof. dr hab. inż. Kazimierz Darowicki	

Lesson types and methods of instruction

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	30.0	0.0	0.0	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	18.0	50

Subject objectives

The aim of the course is to familiarize students with the topic of corrosion protection

Learning outcomes

Course outcome	Subject outcome	Method of verification
K6_W07	Selection of corrosion protection techniques depending on the operating conditions of the structure.	[SW3] Assessment of knowledge contained in written work and projects
K6_U08	Obtaining knowledge in the field of corrosion protection.	[SU3] Assessment of ability to use knowledge gained from the subject

Subject contents

Lecture: - Coating protection: types of coatings, application methods, control methods. - Cathodic and anodic protection. - Inhibitor protection: division of corrosion inhibitors, application. - Selection of construction materials: an overview of modern construction materials used in industrial installations. - Corrosion monitoring.Laboratory exercises: 1. Tests of paint and varnish components 2. Tests of paint products 3. Tests of paint coatings and polymer linings4. Efficiency of corrosion inhibitors 5. Temporal protection agents 6. Cathodic protection of steel 7. Anodic protection of stainless steel 8. Resistance of construction materials in various environments. 9. Corrosion monitoring.

Prerequisites and co-requisites

Knowledge of the basics of corrosion.

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
lab	60.0%	50.0%
lecture	60.0%	50.0%

Recommended reading	Basic literature	Cathodic Corrosion Protection Systems: A Guide for Oil and Gas Industries 1st Edition Protective Coatings Film Formation and Properties Corrosion Inhibitors
	Supplementary literature	There are no requirements.
	eResources addresses	Adresy na platformie eNauczanie:
Example issues/ example questions/ tasks being completed	Coating protection, inhibitory and cathodic. Selection of construction materials. Corrosion monitoring.	
Work placement	Not applicable	