GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Design of corrosion protection, PG_00069275		
Field of study	Corrosion		
Date of commencement of studies	February 2025	Academic year of realisation of subject	2025/2026
Education level	second-cycle studies	Subject group	
Mode of study	Full-time studies	Mode of delivery	at the university
Year of study	1	Language of instruction	Polish
Semester of study	2	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	dr hab. inż. Stefan Krakowiak	
	Teachers		

Lesson types and methods of instruction

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	15.0	0.0	0.0	30.0	0.0	45

E-learning hours included: 0.0

eNauczanie source address: https://enauczanie.pg.edu.pl/moodle/course/view.php?id=5506

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	45	5.0	25.0	75

Subject objectives

Teaching students how to prepare a technological project of anti-corrosion protection and work on the selection of construction materials for the defined operating conditions of industrial installations.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[K7_W01] defines the phenomena and processes used to produce consumer goods and run services	The student is able to evaluate the proposed solutions in comparison with those used in the economy.	[SW3] Assessment of knowledge contained in written work and projects
[K7_K01] critically evaluates the content of scientific and practical problems	The student has knowledge enabling the selection of appropriate methods and means of protecting structures against corrosion.	[SK5] Assessment of ability to solve problems that arise in practice
[K7_U02] conducts experiments using properly selected techniques and apparatus, taking advantage of new developments in corrosion and related fields	Is able to prepare and conduct corrosion measurements using modern measuring equipment for corrosion testing and analytical testing,	[SU1] Assessment of task fulfilment [SU3] Assessment of ability to use knowledge gained from the subject [SU4] Assessment of ability to use methods and tools

Subject contents

Paint coatings; Coating systems; Surface preparation methods; The role of inspection in the design; Industrial alloys; Factors influencing environmental corrosivity; Design components; Expertise components; Pre-design studies.

Prerequisites and co-requisites

Knowledge of basic problems related to anti-corrosion protection technology.

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
Project 2 materials	100.0%	30.0%
Project 1 coatings	100.0%	70.0%

Recommended reading

Basic literature	R. Juchniewicz, Anti-corrosion technology, vol. 1 and vol. 2; Branko N. Popov, Corrosion Engineering, Principles and solved problems
Supplementary literature	Catalogs of companies producing paint and composite coatings; Catalogs of companies producing industrial alloys;

	eResources addresses	
Example issues/ example questions/ tasks being completed	Design of corrosion protection for the supporting structure of a pipeline trestle for reloading petroleum products in a seaport on the Baltic Sea. Selection of construction material for a tank for sulfuric acid (variable concentrations from 45 to 76%) containing chloride ions (2000 ppm).	
Work placement	Not applicable	

Document generated electronically. Does not require a seal or signature.