GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	CORROSION IN PETROCHEMICAL INDUSTRY, PG_00064359		
Field of study	KOROZJA W PRZEMYŚLE PETROCHEMICZNYM		
Date of commencement of studies	February 2026	Academic year of realisation of subject	2026/2027
Education level	second-cycle studies	Subject group	Obligatory subject group in the field of study Specialty 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	1	Language of instruction	Polish
Semester of study	2	ECTS credits	2.0
Learning profile	general academic profile	Assessment form	assessment
Conducting unit	Department of Corrosion and Electrochemistry -> Faculty of Chemistry -> Faculties of Gdańsk University of Technology		
Name and surname of lecturer (lecturers)	Subject supervisor	prof. dr hab. inż. Juliusz Orlikowski	
	Teachers		

Lesson types

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	18.0	50

Subject objectives

Familiarization with corrosion mechanisms in the refining industry

Learning outcomes

Course outcome	Subject outcome	Method of verification
[K7_K01] critically evaluates the content of scientific and practical problems	Ability to recognize corrosion mechanisms depending on technological conditions and construction materials used	[SK2] Ocena postępów pracy
[K7_U01] designs experiments using computer methods of data analysis, computer simulation and based on the state-of-the-art in knowledge of in accordance with the most recent scientific literature	Ability to simulate the composition of process streams using the AspenTech software package	[SU1] Ocena realizacji zadania
[K7_W05] recognises key developments in research, apparatus and technology in corrosion and material degradation and related fields	Skills in obtaining the necessary data for the assessment of corrosion phenomena	[SW1] Ocena wiedzy faktograficznej

Subject contents

Course content – lecture
Presentation of all the basic mechanisms of corrosion and degradation in the refining industry. Discussion of technological factors influencing corrosion risk. Presentation of risk analysis methodology in accordance with API 571 and API 581. Determination of aggressiveness parameters of the corrosive environment.

Prerequisites and co-requisites

Basics of corrosion, basics of chemical engineering

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
Final exam	60.0%	100.0%

Recommended reading

Basic literature	API RBi standard 571, 581
Supplementary literature	There is no requirement
eResources addresses	

Example issues/ example questions/ tasks being completed	Corrosion Mechanisms in the Refining Industry Conditions of Their Occurrence Hazardous Materials
Practical activites within the subject	Not applicable

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