GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	CORROSION IN PETROCHEMICAL INDUSTRY, PG_00064359		
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	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 -> Wydziały Politechniki Gdańskiej		
Name and surname of lecturer (lecturers)	Subject supervisor	prof. dr hab. inż. Juliusz Orlikowski	
	Teachers	prof. dr hab. inż. Juliusz Orlikowski	

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

eNauczanie source addresses:

Moodle ID: 1133 Korozja w Przemyśle Petrochemicznym
https://enauczanie.pg.edu.pl/moodle/course/view.php?id=1133

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_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] Assessment of factual knowledge
[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] Assessment of task fulfilment
[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] Assessment of progress of work

Subject contents

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	Supplementary https://enauczanie.pg.edu.pl/moodle/course/view.php?id=1133 - Access to the digital version of the course
Example issues/ example questions/ tasks being completed	Corrosion Mechanisms in the Refining Industry Conditions of Their Occurrence Hazardous Materials	
Work placement	Not applicable	

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