GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	CORROSION MONITORING, PG_00064360		
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	4.0
Learning profile	general academic profile	Assessment form	exam
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	30.0	0.0	0.0	45

E-learning hours included: 0.0

eNauczanie source addresses:

Moodle ID: 1097 Monitorowanie korozji
https://enauczanie.pg.edu.pl/moodle/course/view.php?id=1097

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	10.0	45.0	100

Subject objectives

The aim of the course is to present issues from corrosion monitoring and risk analysis

Learning outcomes

Course outcome	Subject outcome	Method of verification
[K7_U09] prepares documentation of experiments using professional terminology	Ability to understand P&D and PFD diagrams	[SU1] Assessment of task fulfilment
[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 use NDT methods and corrosion monitoring depending on the type of corrosion hazard	[SU1] Assessment of task fulfilment
[K7_W05] recognises key developments in research, apparatus and technology in corrosion and material degradation and related fields	Market knowledge of corrosion monitoring system manufacturers	[SW1] Assessment of factual knowledge
[K7_K01] critically evaluates the content of scientific and practical problems	Ability to determine the applicability of individual measurement methods in the refinery industry	[SK2] Assessment of progress of work

Subject contents

Przedstawienie budowy i funkcjonowania podstawowych instalacji rafineryjnych. Opis procesów technologicznych oraz ich wpływ na korozję. Przedstawienie technik monitorowania metodą FSM, ultradźwiękową. Analiza grupowa RBI.

Prerequisites and co-requisites

Basic knowledge of Chemical Engineering and the basis of corrosion

Assessment methods and criteria

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

Recommended reading	Basic literature	RBI Risk Base Inspection API RBI 571, 580, 581
	Supplementary literature	There is no requirement.
	eResources addresses	Basic https://enauczanie.pg.edu.pl/moodle/course/view.php?id=1097 - Access to the digital version of the course
Example issues/ example questions/ tasks being completed	Corrosion Monitoring Techniques NDT Inspection Techniques Determining the Degradation Level of Structural Materials	
Work placement	Not applicable	

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