



Subject card

Subject name and code	Corrosion protection of industrial installations and Risk Based Inspection(RBI), PG_00048867						
Field of study	Engineering and Technologies of Energy Carriers						
Date of commencement of studies	February 2023	Academic year of realisation of subject			2023/2024		
Education level	second-cycle studies	Subject group			Obligatory subject group in the field of study Subject group related to practical vocational preparation		
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	practical profile	Assessment form			assessment		
Conducting unit	Department of Electrochemistry, Corrosion and Materials Engineering -> Faculty of Chemistry						
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	15.0	0.0	60
	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	60	10.0	30.0	100		
Subject objectives	Theory of corrosion in the refinery. Knowledge of the API 571 and 581 Standards and correct identification of corrosion mechanism in the materials degradation cards.						
Learning outcomes	Course outcome	Subject outcome			Method of verification		
	K7_W08	student is able to design a technological process, choose construction materials			[SW1] Assessment of factual knowledge		
	K7_U01	Theory of corrosion in the refinery. Knowledge of the API 571 and 581 Standards and correct identification of corrosion mechanism in the materials degradation cards.			[SU5] Assessment of ability to present the results of task		
	K7_W11	student understands the impact of corrosion on the environment			[SW1] Assessment of factual knowledge		
	K7_U04	Theory of corrosion in the refinery. Knowledge of the API 571 and 581 Standards and correct identification of corrosion mechanism in the materials degradation cards.			[SU1] Assessment of task fulfilment		
Subject contents	Theoretical knowledge of crude oil refination technology, corrosion processes and construction materials. Practical skills of various corrosion mechanisms identyfication and basic techniques of corrosion monitoring applied in refinery. Project based on creation of degradation cards for the atmospherich distillation unit based on chemistry of the stream, working temperatures, construction materials etc.						
Prerequisites and co-requisites	Chemistry and chemical engineering						

Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	exam	60.0%	70.0%
	project	70.0%	30.0%
Recommended reading	Basic literature	API 571	
		API 581	
	Supplementary literature	none	
	eResources addresses	Adresy na platformie eNauczanie:	
Example issues/ example questions/ tasks being completed	<ol style="list-style-type: none"> 1. List the corrosion mechanisms of corrosion - high temperature 2. List the corrosion mechanisms causing structural degradation 3. In which refinery units there is a metal dusting mechanism 		
Work placement	Not applicable		