



Subject card

Subject name and code	CORROSION IN FOOD INDUSTRY, PG_00064347						
Field of study	Corrosion						
Date of commencement of studies	February 2025	Academic year of realisation of subject			2024/2025		
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	1	ECTS credits			2.0		
Learning profile	general academic profile	Assessment form			assessment		
Conducting unit	Department of Corrosion and Electrochemistry -> Faculty of Chemistry						
Name and surname of lecturer (lecturers)	Subject supervisor	prof. dr hab. inż. Juliusz Orlikowski					
	Teachers	prof. dr hab. inż. Juliusz Orlikowski mgr inż. Zuzanna Zarach					
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 Additional information: Classes conducted in a hybrid system for students studying in the 3+2 system						
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	5.0		15.0		50
Subject objectives	The aim of the course is to provide knowledge about technology in the food industry, water systems, corrosion protection .						
Learning outcomes	Course outcome	Subject outcome			Method of verification		
	[K7_W01] defines the phenomena and processes used to produce consumer goods and run services	Knowledge of ongoing corrosion processes			[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	Assessment of water corrosion hazard based on computer calculations			[SU1] Assessment of task fulfilment		
	[K7_K03] can interact and work in a group, undertaking various roles within it	Carrying out laboratory classes partly in groups			[SK2] Assessment of progress of work		
Subject contents	Presentation of water treatment technology, construction of pipelines, construction materials. Presentation of corrosion hazards: general corrosion, corrosion under deposits, corrosion, zinc coating. Analysis of water composition, corrosion indexes. Overview of fruit juice and beer technology. Presentation of corrosion hazards in the food industry and discussion of construction materials.						
Prerequisites and co-requisites	knowledge of organic technology and corrosion protection technologies						
Assessment methods and criteria	Subject passing criteria	Passing threshold			Percentage of the final grade		
	Exam	60.0%			100.0%		

Recommended reading	Basic literature	L.L. Shreir, Corrosion, Newnes-Butterworths, 1976 Karl Weber, Food Inc., A Participant Guide: How Industrial Food is Making Us Sicker, Fatter, and Poorer-And What You Can Do About It
	Supplementary literature	A Participant Guide: How Industrial Food is Making Us Sicker, Fatter, and Poorer-And What You Can Do About It
	eResources addresses	Adresy na platformie eNauzanie: KOROZJA W PRZEMYSŁE SPOŻYWCZYM - Moodle ID: 45119 https://enauzanie.pg.edu.pl/moodle/course/view.php?id=45119
Example issues/ example questions/ tasks being completed	Principles of electrochemical protection, coating protection, corrosion hazards in the food industry	
Work placement	Not applicable	

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