



Subject card

Subject name and code	CORROSION IN FOOD INDUSTRY, PG_00064347						
Field of study	Corrosion						
Date of commencement of studies	February 2027		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		blended-learning		
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 -> 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: 15.0						
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		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	Course content – lecture 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	
Example issues/ example questions/ tasks being completed	Principles of electrochemical protection, coating protection, corrosion hazards in the food industry	
Practical activities within the subject	Not applicable	

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