GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	CORROSION IN FOOD INDUSTRY, PG_00064347		
Field of study	KOROZJA W PRZEMYŚLE SPOŻYWCZYM		
Date of commencement of studies	February 2026	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	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: 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	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_K03] can interact and work in a group, undertaking various roles within it	Carrying out laboratory classes partly in groups	[SK2] Ocena postępów pracy
[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] Ocena realizacji zadania
[K7_W01] defines the phenomena and processes used to produce consumer goods and run services	Knowledge of ongoing corrosion processes	[SW1] Ocena wiedzy faktograficznej

Subject contents

Course content – lecture
Presentation of water treatment technology, construction of pipelines, construction materials. Presentation of corrosion hazards: general corrosion, corrosion under deposists, 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 activites within the subject	Not applicable	

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