



## Subject card

Subject name and code	Corrosion in food industry, PG_00035456						
Field of study	Corrosion						
Date of commencement of studies	February 2023	Academic year of realisation of subject			2022/2023		
Education level	second-cycle studies	Subject group			Obligatory subject group in the field of study 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 Electrochemistry, Corrosion and Materials Engineering -> Faculty of Chemistry						
Name and surname of lecturer (lecturers)	Subject supervisor	dr hab. inż. Juliusz Orlikowski					
	Teachers	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	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	3.0	17.0	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_U04	Analysis of corrosive factors			[SU1] Assessment of task fulfilment		
	K7_W02	Knowledge of corrosion mechanisms			[SW1] Assessment of factual knowledge		
	K7_K01	Performing laboratory classes			[SK2] Assessment of progress of work		
	K7_W04	Research on the corrosion risk of food industry installations			[SW1] Assessment of factual knowledge		
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						

Example issues/ example questions/ tasks being completed	Principles of electrochemical protection, coating protection, corrosion hazards in the food industry
Work placement	Not applicable