GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Safety and quality of sustainable food, PG_00057688						
Field of study	Green Technologies						
Date of commencement of studies	October 2022		Academic year of realisation of subject	2024/2025			
Education level	first-cycle studies		Subject group	Optional 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	3		Language of instruction	Polish			
Semester of study	5		ECTS credits	5.0			
Learning profile	general academic profile		Assessment form	assessment			
Conducting unit	Department of Chemistry, Technology and Biochemistry of Food -> Faculty of Chemistry						
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. inż. Dorota Martysiak-Żurowska				
	Teachers						
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	30.0	0.0	30.0	0.0	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		5.0		60.0	125
Subject objectives	To familiarize students with knowledge of the principles and directions of ensuring food safety and quality in the aspect of sustainable food production.						

Learning outcomes			
	Course outcome	Subject outcome	Method of verification
	[K6_W05] has an elementary knowledge of the fundamental concepts and problems of quality management, the general principles of creation and development of forms of individual entrepreneurship, application of the principles of work organization and integrated management, basic principles of quality control and analysis results; knowledge of basic legal aspects relating to the management of chemicals with particular emphasis on compounds polluting the environment and business, knows and understands the basic concepts and principles of the protection of industrial property and copyright and the need for management of intellectual property.	The student has basic knowledge of quality management problems, principles of work organization and integrated management, basic principles of production quality control; knowledge of basic legal aspects regarding sustainable economic development and sustainable production. Knows and understands the basic concepts and principles of industrial property protection and copyright and principles of sustainable business activity.	[SW1] Assessment of factual knowledge
	[K6_K05] is ready to initiate actions for public interest, preparation of social projects (economic, civil, political).	The student understands the need to initiate activities in the public interest and prepare social projects in the field of sustainable food management.	[SK4] Assessment of communication skills, including language correctness [SK5] Assessment of ability to solve problems that arise in practice [SK1] Assessment of group work skills
	[K6_W03] has a basic knowledge of soil, air and water pollutants, design and supervision of environmentally friendly technologies and technologies which do not produce waste, knows technology of cleaning and neutralization of industrial waste and wastewater management, has a basic understanding of the theoretical basis of methods and types of apparatus used in chemical analysis of environmental pollutants	The student has basic knowledge of the protection of soil, air, water and food against contamination and the theoretical basis of methods and types of apparatus used in the analysis of food contamination.	[SW3] Assessment of knowledge contained in written work and projects [SW1] Assessment of factual knowledge
	[K6_U05] can formulate and solve engineering tasks analytical methods, simulation as well as experimental, able to apply knowledge of basic physics and mathematics to analyze the results of experiments, is able to analyze and assess existing technical solutions	The student is able to apply the acquired knowledge to analyze and evaluate the results of experiments	[SU3] Assessment of ability to use knowledge gained from the subject [SU2] Assessment of ability to analyse information [SU5] Assessment of ability to present the results of task [SU4] Assessment of ability to use methods and tools

Subject contents	Basic definitions and principles of green technologies. Sustainable economic development and the food market. EU policy regarding agriculture: the Green Deal and the strategies it includes: "from farm to fork" and "biodiversity strategy". Food quality: concept, method of definition, consumer requirements. Food safety: basic issues. Control of the condition and quality of food products. Increasing food safety by reducing pollution associated with its production. Functional food, "healthy" food, and the production of clean-label food; opportunities for the development of the food industry. "Green transformation" in the development strategies of food industry companies. Examples of implementing its assumptions in practice. Agricultural production with the minimum possible negative impact on the environment. Possibilities in reducing the negative impact of increased food production on the environment. Principles of sustainable food management, directions for developing innovative food production technologies. "Green transformation" in the environmental area. Green technology solutions in industries other than food industry.
Prerequisites and co-requisites	Knowledge from the course: Environmental chemistry, Environmental biology, Specification of the state of environment.

Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Lecture: exam	60.0%	70.0%
	Laboratory: passing theory, attendance at lab classes	60.0%	30.0%
Recommended reading	Basic literature	Current EU regulations and publications related to the topics of the lectures.	
	Supplementary literature	Literature studies provided by lecturers.	
	eResources addresses	Adresy na platformie eNauczanie:	
Example issues/ example questions/ tasks being completed	The main principles of the "farm to fork" strategy. Biodegradable packaging. Sustainable economic and technological development and the food market.		
Work placement	Not applicable		

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