



Subject card

Subject name and code	Food Quality Assessment, PG_00054709						
Field of study	Biotechnology						
Date of commencement of studies	October 2025		Academic year of realisation of subject		2026/2027		
Education level	first-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	2		Language of instruction		Polish		
Semester of study	4		ECTS credits		2.0		
Learning profile	general academic profile		Assessment form		assessment		
Conducting unit	Department of Chemistry Technology and Biotechnology of Food -> Faculty of Chemistry -> Faculties of Gdańsk University of Technology						
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. inż. Dorota Martysiak-Żurowska				
	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		2.0		18.0	50
Subject objectives	Familiarizing students with the basic terminology regarding food quality and regulations governing food quality. Gaining the necessary knowledge in the field of analytical methods for assessing food quality, detecting the presence of contaminants, techniques for confirming the authenticity of food and detecting adulteration of food products.						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	K6_U09		The student knows and can use the analytical methods for food quality assessment .		[SU5] Assessment of ability to present the results of task [SU4] Assessment of ability to use methods and tools [SU3] Assessment of ability to use knowledge gained from the subject [SU2] Assessment of ability to analyse information		
	K6_U01		The student has the skills and knowledge necessary to develop and interpret analytical results.		[SU1] Assessment of task fulfilment [SU2] Assessment of ability to analyse information [SU4] Assessment of ability to use methods and tools [SU5] Assessment of ability to present the results of task		
	K6_W09		He has knowledge of analytical methods for analysis and assessment of foodstuffs, including products obtained by biotechnological methods.		[SW3] Assessment of knowledge contained in written work and projects [SW1] Assessment of factual knowledge		
	K6_W05		Student has basic knowledge of nutrition and digestion of nutrients.		[SW1] Assessment of factual knowledge		

Subject contents	Course content – lecture		
	Lecture: Definition of human food and food quality. Parameters determining the health and commercial quality of food. General principles of food law. Official food control in the European Union and in Poland. Official institutions responsible for food inspection - their competences, powers and tasks. Classification and characterization of methods used in the analysis of food composition. Additives approved for use in food and their potential impact on the human body. Antinutrients and allergens found in food products. Food contaminants affecting its safety .Food adulteration and the resulting risks, methods of detecting adulteration of food products. Methods of determining the authenticity of food products. Caloric content of food and composition - substances replacing fats and sugars. Basic information on human nutrition. Laboratory: Food adulteration on the example of honey, edible fats, olive oil, wine, fruit juices, coffee and meat products. Determination of the authenticity of food products on the example of natural coffee (determination of caffeine), olive oil. Determination of the content of agricultural impurities in fruit and vegetables. The basic composition of a food product and its calorific value. Foods with lowered calories. Natural and synthetic dyes in food products.		
Prerequisites and co-requisites	The ability to execute basic tasks in the laboratory and statistical analysis of experimental date.		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Lecture: test	60.0%	60.0%
	Laboratory : tests , reports	60.0%	40.0%
Recommended reading	Basic literature	- Bączkowska M i in. Podstawy analizy i oceny jakości żywności . Wydawnictwo UR, Kraków 2019 - Nogala-Kałucka M. (red.) Analiza żywności. Wybrane metody oznaczeń jakościowych i ilościowych składników żywności. 2016. - Current directives and regulations	
	Supplementary literature	Website : - Food law : Centrum Prawa Żywnościowego i Produktowego - Codex Alimentarius - European-union.europa.eu (Food Law)	
	eResources addresses		
Example issues/ example questions/ tasks being completed	What do we mean by food quality?Examples of food adulteration.What groups of contaminants are found in food?Systems ensuring the safe use of permitted food additives.What are hidden fats and what methods can be used to determine their content.		
Practical activites within the subject	Not applicable		

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