GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Food Quality Assessment, PG_00054709		
Field of study	Biotechnology		
Date of commencement of studies	October 2024	Academic year of realisation of subject	2025/2026
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

<table>
<tr><td>Subject contents</td><td>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.</td></tr>
<tr><td>Prerequisites and co-requisites</td><td>The ability to execute basic tasks in the laboratory and statistical analysis of experimental date.</td></tr>
<tr><td>Assessment methods and criteria</td><td><table>
<tr><th>Subject passing criteria</th><th>Passing threshold</th><th>Percentage of the final grade</th></tr>
<tr><td>Lecture: test</td><td>60.0%</td><td>60.0%</td></tr>
<tr><td>Laboratory : tests , reports</td><td>60.0%</td><td>40.0%</td></tr>
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<tr><td>Recommended reading</td><td><table>
<tr><td>Basic literature</td><td>- 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</td></tr>
<tr><td>Supplementary literature</td><td>Website :

- Food law : Centrum Prawa Żywnościowego i Produktowego

- Codex Alimentarius

- European-union.europa.eu (Food Law)</td></tr>
<tr><td>eResources addresses</td><td></td></tr>
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<tr><td>Example issues/ example questions/ tasks being completed</td><td>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.</td></tr>
<tr><td>Practical activites within the subject</td><td>Not applicable</td></tr>
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