GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	PRODUCT QUALITY, PG_00044767		
Field of study	Engineering Management		
Date of commencement of studies	October 2021	Academic year of realisation of subject	2022/2023
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	4.0
Learning profile	general academic profile	Assessment form	assessment
Conducting unit	Department of Quality Management and Commodity Science -> Faculty of Management and Economics		
Name and surname of lecturer (lecturers)	Subject supervisor	prof. dr hab. inż. Maria Szpakowska	
	Teachers	dr inż. Ewa Marjańska mgr Anna Wendt prof. dr hab. inż. Maria Szpakowska	

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

Jakość Produktu STAC. 2022/23 - Moodle ID: 26314
https://enauczanie.pg.edu.pl/moodle/course/view.php?id=26314

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	6.0	34.0	100

Subject objectives

Introduction to methods of quality assessment of selected products. Quality self-assessment of selected products.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[K6_U08] analyses engineering and managerial solutions in decision-making processes, taking into account pro-quality and pro-environmental aspects, as well as safety of work processes	Student estimates quality of selected goods	[SU4] Assessment of ability to use methods and tools
[K6_W11] has the basic knowledge of mathematics, physics and chemistry necessary to solve technical problems	Student combines the knowledge from chemistry, physics, commodity science and economy	[SW3] Assessment of knowledge contained in written work and projects
[K6_W07] knows the basic conditions concerning norms and standards covering particular areas of the organization's functioning, including in particular those concerning technical resources and processes	Student definies basic commodity science ideas and analyses different norms	[SW3] Assessment of knowledge contained in written work and projects

<table>
<tr><td>Subject contents</td><td><u>LECTURE:</u> Kind of commodity science and its history; Commodity, product, goods; Classification and methodology of commodities; Principles of commodity coding; Polish code and code systems in other countries; Principle of consumer and forwarding units; Quality, quality features and types good control; Factors influencing quality; Quality measure; Qualitometry; Task and aims of consumer organizations; Organisation, aims and tasks of normalization; Polish, plant and european norms; Norm hrmonization; Quality assessment of goods and food products by organoleptic methods; Certification in UE and in Poland; Quality systems and HACCP; Packaging as integral part of goods; Rules of labeling; Transport of goods; Storage of goods; Properties of selected goods.

<u>LABOARTORY:</u> Investigation of selected physicochemical properties of metals, alloys and precious stones; Investigation of acidity of selected products; Determination of water amount in selected lipid products; Quality assessment of selected fermentation products, dairy produce and bread-stuffs; Quality assessment and classification of paper goods;</td></tr>
<tr><td>Prerequisites and co-requisites</td><td>Knowledge from the course: Applied Chemistry</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>Written exam</td><td>60.0%</td><td>40.0%</td></tr>
<tr><td>Practical exercise</td><td>60.0%</td><td>60.0%</td></tr>
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<tr><td>Recommended reading</td><td>
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<tr><td>Basic literature</td><td>1. Praca zbiorowa pod redakcją Laboratorium z towaroznawstwa wybranych artykułów spożywczych i nieżywnościowych, wydanie drugie rozszerzone, Gdańsk 2007,
2. W. Nalepa , Towaroznawstwo – artykuły przemysłowe, PWE Warszawa, 1986;
3. A. Korzeniowski, Towaroznawstwo artykułów przemysłowych, Badanie jakości wyrobów, część I, AE Poznań, 1999;
4. M. Małecka, B. Pachołek, Ocena jakości wybranych produktów spożywczych i wody, AE Poznań, 2001.</td></tr>
<tr><td>Supplementary literature</td><td>H. Całus, Podstawy obliczeń chemicznych, Wydawnictwa Naukowo-Techniczne, Warszawa 1987</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>1. Physicochemical properties of selected metals, alloys, gemstones

2. pH and acidity of soil

3. Water content in selected fatty products

4. Quality of selected fermentation industry products

5. Paper packages, quality and classification of paper products</td></tr>
<tr><td>Work placement</td><td>Not applicable</td></tr>
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