



## Subject card

Subject name and code	PRODUCT QUALITY, PG_00044281						
Field of study	Engineering Management						
Date of commencement of studies	October 2022	Academic year of realisation of subject			2023/2024		
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	Part-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						
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	16.0	0.0	16.0	0.0	0.0	32
	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	32	6.0		62.0	100	
Subject objectives	Getting to know the methods of testing the quality of selected products. Self-assessment of the quality 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		Wyniki tłumaczenia Assesses the 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		combines knowledge in the field of chemistry, physics, commodity science and economics;			[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		Defines basic commodity concepts and analyzes various norms			[SW3] Assessment of knowledge contained in written work and projects	

Subject contents	<p><b>LECTURE:</b> Types of commodity science and its history; Commodity, product, good; Classification and systematization of goods; Commodity coding rules; Polish codes and code systems in other countries; Coding rules for consumer and shipping units; Quality, quality characteristics and types of goods inspection; Factors influencing the quality; Quality measurement, quality control; Tasks and goals of consumer organizations; Organization, goals, tasks of standardization; Polish, factory and European standards; Harmonization of standards; Testing and assessing the quality of food products using organoleptic methods; Certification in the EU and Poland; Quality assurance systems and HACCP; Packaging as an integral part of the goods; Labeling rules; Transportation of goods; Storage of goods; Selected properties of goods.</p> <p><b>LABORATORY:</b> Examination of selected physicochemical properties of some metals, alloys and precious stones; Testing the acidity of selected products; Testing the water content in selected fat products; Determination of the quality of selected products of the fermentation industry, dairy products and bread; Quality evaluation and classification of paper products;</p>											
Prerequisites and co-requisites	Knowledge of the subject: Applied Chemistry											
Assessment methods and criteria	<table border="1" data-bbox="448 808 1487 913"> <thead> <tr> <th data-bbox="448 808 794 846">Subject passing criteria</th> <th data-bbox="794 808 1141 846">Passing threshold</th> <th data-bbox="1141 808 1487 846">Percentage of the final grade</th> </tr> </thead> <tbody> <tr> <td data-bbox="448 846 794 875">Written exam</td> <td data-bbox="794 846 1141 875">60.0%</td> <td data-bbox="1141 846 1487 875">40.0%</td> </tr> <tr> <td data-bbox="448 875 794 913">Exercises</td> <td data-bbox="794 875 1141 913">60.0%</td> <td data-bbox="1141 875 1487 913">60.0%</td> </tr> </tbody> </table>			Subject passing criteria	Passing threshold	Percentage of the final grade	Written exam	60.0%	40.0%	Exercises	60.0%	60.0%
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Written exam	60.0%	40.0%										
Exercises	60.0%	60.0%										
Recommended reading	Basic literature	<ol style="list-style-type: none"> <li>1. Praca zbiorowa pod redakcją Laboratorium z towaroznawstwa wybranych artykułów spożywczych i nieżywnościowych, wydanie drugie rozszerzone, Gdańsk 2007,</li> <li>2. W. Nalepa , Towaroznawstwo artykuły przemysłowe, PWE Warszawa, 1986;</li> <li>3. A. Korzeniowski, Towaroznawstwo artykułów przemysłowych, Badanie jakości wyrobów, część I, AE Poznań, 1999;</li> <li>4. M. Małecka, B. Pacholek, Ocena jakości wybranych produktów spożywczych i wody, AE Poznań, 2001.</li> </ol>										
	Supplementary literature	H. Całus, Podstawy obliczeń chemicznych, Wydawnictwa Naukowo-Techniczne, Warszawa 1987										
	eResources addresses											
Example issues/ example questions/ tasks being completed												
Work placement	Not applicable											