



Subject card

Subject name and code	Standardization and quality assessment, PG_00063620						
Field of study	Materials Engineering						
Date of commencement of studies	October 2025		Academic year of realisation of subject		2026/2027		
Education level	second-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	3		ECTS credits		1.0		
Learning profile	general academic profile		Assessment form		assessment		
Conducting unit	Department of Polymer Technology -> Faculty of Chemistry -> Wydziały Politechniki Gdańskiej						
Name and surname of lecturer (lecturers)	Subject supervisor		prof. dr hab. inż. Janusz Datta				
	Teachers		prof. dr hab. inż. Janusz Datta				
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	0.0	0.0	0.0	15.0	15
	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	15		2.0		8.0	25
Subject objectives	Familiarizing students with the principles of standardization and classification of materials, the practical application of standards, and product quality assessment.						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K7_K01] Understands the need for lifelong learning, can inspire and organize the learning process of others. Is aware of own limitations and knows when to turn to experts, can accurately determine priorities helping to achieve the tasks specified by themselves or others.		The student understands the need for continuous self-learning and inspires others to do the same, as they are aware of their own limitations and are therefore able to seek advice from experts.		[SK3] Assessment of ability to organize work		
	[K7_U01] Can obtain information from literature, databases and other properly selected sources, also in English; can integrate the obtained information, interpret and draw conclusions, formulate and justify opinions		The student is able to properly collect and use data and interpret it correctly.		[SU2] Assessment of ability to analyse information		
	[K7_W05] Knows methods, techniques, tools and materials for solving complex engineering tasks relevant to materials engineering.		The student knows various types of engineering materials and techniques for using them to solve engineering problems in the field of materials engineering.		[SW1] Assessment of factual knowledge		
Subject contents	Standards definition and significance. How to use standards. Classification of standards. Standardization and quality in production. Conventional and unconventional materials in construction. Steel structures and calculations of selected structural elements practical application of standards. Quality control main elements of production control.						
Prerequisites and co-requisites							
Assessment methods and criteria	Subject passing criteria		Passing threshold		Percentage of the final grade		
	test sprawdzający		50.0%		100.0%		

Recommended reading	Basic literature	<p>1. Blicharski M.: Inżynieria materiałowa. Stal. WNT Warszawa, 2004</p> <p>2. Dobrzański L.: Podstawy nauki o materiałach i metaloznawstwo. WNT, Warszawa 2002.</p> <p>3. Garbarski J., Części maszyn z tworzyw sztucznych, Oficyna Wydawnicza Politechniki Warszawskiej, Warszawa, 2016.</p> <p>4. Wilczyński K., Wybrane zagadnienia przetwórstwa tworzyw sztucznych, Oficyna Wydawnicza Politechniki Warszawskiej, Warszawa, 2011</p>
	Supplementary literature	<p>1. Dobrzański L.A.: Materiały inżynierskie i projektowanie materiałowe. WNT, Warszawa, 2005.</p> <p>2. Standards; PN, PN-EN, ISO, ASTM, przepisy UDT.</p>
	eResources addresses	
Example issues/ example questions/ tasks being completed	<p>Discuss metal construction materials.</p> <p>Discuss non-metal construction materials.</p> <p>Determine the working volume of a chemical reactor.</p> <p>Calculate the wall thickness of a cylindrical shell.</p> <p>How is the quality of joints between different materials controlled?</p>	
Work placement	Not applicable	

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