GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Standardization and quality assessment, PG_00063620		
Field of study	Materials Engineering		
Date of commencement of studies	October 2026	Academic year of realisation of subject	2027/2028
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 -> Faculties of Gdańsk University of Technology		
Name and surname of lecturer (lecturers)	Subject supervisor	prof. dr hab. inż. Janusz Datta	
	Teachers	prof. dr hab. inż. Janusz Datta	

Lesson types

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_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
[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_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

Subject contents

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

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