

。 GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Engineering design, PG_00061900								
Field of study	Materials Engineering								
Date of commencement of studies	October 2024		Academic year of realisation of subject			2024/2025			
Education level	first-cycle studies		Subject group			Obligatory subject group in the field of study			
Mode of study	Full-time studies		Mode of de	livery		at the	university		
Year of study	1		Language	of instruction	า	Polish	1		
Semester of study	2		ECTS cred	ECTS credits			5.0		
Learning profile	general academic pro	ofile	Assessmer	nt form		assessment			
Conducting unit	Department of Polym	er Technology	-> Faculty of C	hemistry					
Name and surname	Subject supervisor dr inż. Marcin Włoch								
of lecturer (lecturers)	Teachers		dr inż. Marcin	Włoch					
			mar inż Prze	mysław Gnatov	wski				
			Ũ		WOR				
			dr inż. Ewa G	łowińska					
Lesson types and methods	Lesson type	Lecture	Tutorial	Laboratory	Projec	:t	Seminar	SUM	
of instruction	Number of study	15.0	30.0	0.0	15.0		0.0	60	
	hours E-learning hours inclu	l Ided: 0.0							
Learning activity	Learning activity Participation in classes include plan		n didactic	didactic Participation in			Self-study SUM		
and number of study hours									
	Number of study 60 hours		5.0		60.0 125		125		
Subject objectives	Obtaining basic knowledge in the field of engineering design, including engineering calculations and engineering graphics								
Learning outcomes	Course outcome		Subject outcome			Method of verification			
	[K6_W03] Has knowledge of materials science and can relate the properties of materials with their structure and composition, knows the theoretical description of phenomena occurring in materials subjected to external factors.		Student is able to indicate materials that could be used in a given engineering application taking into account presented requirements			[SW3] Assessment of knowledge contained in written work and projects [SW1] Assessment of factual knowledge			
	[K6_U01] Can properly use selected analytical, simulation and experimental methods, as well as devices for measuring the fundamental properties of materials and technological processes.		Student has the ability to analyze basic issues related to the strength of materials and technical drawing, in terms of theory and solving simple tasks and practical problems.			[SU4] Assessment of ability to use methods and tools [SU2] Assessment of ability to analyse information [SU1] Assessment of task fulfilment			
	[K6_W05] Has the knowledge of mechanics, technology and electrical engineering, including engineering graphics and using computer aid, the use of databases in the design of technological processes.		Student understands the essence and complexity of engineering design, including the ability to analyze the problem, perform strength analysis and prepare a technical drawing			[SW3] Assessment of knowledge contained in written work and projects [SW1] Assessment of factual knowledge			
	[K6_K01] Understands the need to improve professional and personal competencies; is conscious of own limitations and knows when to turn to experts, properly establishes priorities helping to accomplish tasks defined by oneself or others.		Student has the ability to solve basic problems related to engineering design, including simple tasks related to technical drawing and engineering calculations.			[SK5] Assessment of ability to solve problems that arise in practice [SK3] Assessment of ability to organize work			

Studjetu Conterns Engineering design methods and techniques (problem formulation and analysis, methods of evaluation and selection of adultors) Strength characteristics (infroduction to mechanics and strength of materials; stresses, strains and strength orders; arging hackbackers) Technical drawing (principles of preparation and types of technical drawings; projection; views, sections and drawing (syouts; principles of dimensioning; tolerances and ffas; roughness) Recording selected structures (elements of matchines and devices, including drive elements; detachable and inseparable connections) Prerequisities Knowledge from the course "Fundamentals of materials engineering" Assessment methods <u>Subject passing orders</u> <u>500%</u> <u>30.0%</u> <u>databation</u> <u>500%</u> <u>30.0%</u> <u>databation</u> <u>500%</u> <u>30.0%</u> <u>catabation</u> <u>500%</u> <u>30.0%</u> <u>toraving tasks</u> <u>500%</u>	Subject contents	1 Designing processes objects and	I materials as a basic element of end	ineering activities					
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Work placement Not applicable									

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