GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Engineering Graphics I, PG_00055216						
Field of study	Mechanical Engineering						
Date of commencement of studies	October 2025		Academic year of realisation of subject		2025/2026		
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	1		Language of instruction		English		
Semester of study	1		ECTS credits		5.0		
Learning profile	general academic profile		Assessment form		assessment		
Conducting unit	Department Of Machine Design And Vehicles -> Faculty Of Mechanical Engineering And Ship Technology -> Wydziały Politechniki Gdańskiej						
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. inż. Jacek Łubiński				
	Teachers						

Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	0.0	30.0	0.0	45
	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	45	9.0	71.0	125

Subject objectives	The aim of the classes is to develop the spacial imagination, recognition of the projection methods, preparation of the working drawings based on the current norms of the technical drawing

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[K6_U03] is able to identify, formulate and develop the documentation of a simple design or technological task, including the description of the results of this task in Polish or in a foreign language and to present the results using computer software or other aiding tools	The student can present elements on the bassis of the parallel projection. The student writes and read the shape of the mechanical construction. Can define the state of the surface, dimentions the machine elements and creates working drawing based on the norms of the technical drawing.	[SU3] Assessment of ability to use knowledge gained from the subject [SU1] Assessment of task fulfilment
	K6_W07	The student can present elements on the bassis of the parallel projection. The student writes and read the shape of the mechanical construction. Can define the state of the surface, dimentions the machine elements and creates working drawing based on the norms of the technical drawing.	[SW1] Assessment of factual knowledge

Subject contents	The role of the enginnering drawing in the industry,
	Introduction to preparation of the technical objects.
	Axonometric and ortographic projection
	Projections of: points, lines, planes, solids.
	True size of geometrical elelments
	Presentation of solids cut by multiple planes,
	Views and sections of machine elements.
	Dimentioning, dimention tollerance, fits.
	Desctiption of surface state.
	Types of machine drawings.
	Position of the element on the drawing.
	Normalisation in technical drawing.

Prerequisites and co-requisites	Basic knowledge of planar and spacial geometry, metrology, and machine design.

Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Final test	60.0%	60.0%
	Class projects	60.0%	40.0%

Recommended reading	Basic literature	Dobrzański T.: Rysunek techniczny i maszynowy. WNT, Warszaw, 2017.
		Rigall A., Sadaj J.: Zapis konstrukcji Geometria wykreślna, Wydawnictwo Politechniki Gdańskiej, 2003.
		Hawk C, Schaum's outline of theory and problems of descriptive geometry,1962
	Supplementary literature	
		Kurmaz L.W.: Projektowanie węzłów i części maszyn, Wydawnictwo Politechniki Świętokrzyskiej, 2007.
	eResources addresses	Adresy na platformie eNauczanie:

Example issues/ example questions/ tasks being completed	
	Create a working drawing of an element on the pictureDraw a solid cut by multiple planesFill the missing projections of the element

Work placement	Not applicable

Document generated electronically. Does not require a seal or signature.