GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Engineering Graphics I, PG_00039800		
Field of study	Materials Engineering, Materials Engineering, Materials Engineering		
Date of commencement of studies	October 2021	Academic year of realisation of subject	2022/2023
Education level	first-cycle studies	Subject group	Obligatory subject group 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	4	ECTS credits	4.0
Learning profile	general academic profile	Assessment form	assessment
Conducting unit	Institute of Mechanics and Machine Design -> Faculty of Mechanical Engineering and Ship Technology		
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Katarzyna Zasińska	
	Teachers	dr inż. Katarzyna Zasińska mgr inż. Marek Łubniewski	

Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	30.0	0.0	30.0	0.0	0.0	60
	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	60	5.0	35.0	100

Subject objectives	The aim of the subject is to shape the 3D imagination, to learn the principles of projection and defining drawings in accordance with the applicable standards and rules of technical drawing, to learn the principles of presenting connections and components of drive systems in a technical drawing.

Learning outcomes			
	Course outcome	Subject outcome	Method of verification
	K6_W05	A student draws space elements based on orthographic projection. He presents the rules of presentation elements in engineering drawing. He draws and reads structural forms of threedimensional mechanical elements. He describes surface attributes of elements. He draws of machine elements dimensions and creates working drawings of machine elements according to machine technical drawing standards. He creates working and assembly drawings of machine elements. He reads information about machine elements based on presented elements and units drawings. He draws and reads structural forms of three-dimensional mechanical elements and mechanical units. He reads diagrams of complex mechanical systems.	[SW1] Assessment of factual knowledge
	K6_U01	The student understands the importance of Engineering Graphics in the process of implementing design tasks. The student applies the rules set out in the standards for the presentation of technical objects on the drawings.	[SU1] Assessment of task fulfilment [SU4] Assessment of ability to use methods and tools
	K6_U03	A student draws space elements based on orthographic projection. He presents the rules of presentation elements in engineering drawing. He draws and reads structural forms of threedimensional mechanical elements. He describes surface attributes of elements. He draws of machine elements dimensions and creates working drawings of machine elements according to machine technical drawing standards. He creates working and assembly drawings of machine elements. He reads information about machine elements based on presented elements and units drawings. He draws and reads structural forms of three-dimensional mechanical elements and mechanical units. He reads diagrams of complex mechanical systems.	[SU1] Assessment of task fulfilment [SU2] Assessment of ability to analyse information
	K6_K01	The student understands the importance of Engineering Graphics in the process of implementing design tasks. The student applies the rules set out in the standards for the presentation of technical objects on the drawings.	[SK2] Assessment of progress of work
Subject contents	LECTURE Ways of describing the geometric elements and objects. Reference system. Main and additionalprojecting plane. Axouometric and perpendicular projections. The methods of the machine systems drawingpresentation, assembly and working drawings. Standarization of machine parts - selesction and specificationof standard elements. LABORATORY Perpendicular projections of the geometric figures and tree-dimensionalobjects. Section of figures and 3d objects. Presentation of the objects in typical projectivns. Working out theassembly and working drawings.Drawing the connections and elements of drives.		
Prerequisites and co-requisites	Knowledge of the subjects: "Mathematics" and "Machine constructions".		

Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Midterm colloquium	56.0%	40.0%
	Laboratory excercise reports	56.0%	60.0%
Recommended reading	Basic literature	1. Dobrzański T.: Rysunek techniczny maszynowy. Wydawnictwo Naukowo-Techniczne, W-wa 2006. 2. Zapis konstrukcji, część I, Geometria Wykreślna, A. Rigall, J. Sadaj	
	Supplementary literature	Zapis konstrukcji, część I, Geometria Wykreślna, A. Rigall, J. Sadaj	
	eResources addresses	Adresy na platformie eNauczanie:	
Example issues/ example questions/ tasks being completed	1. Sectional views. 2. Add missing projected views. 3. Make a workshop drawing for a detail. 4. Make an assembly drawing of screen connection.		
Work placement	Not applicable		

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