GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Engineering Graphics I, PG_00040159		
Field of study	Mechanical Engineering, Mechanical Engineering		
Date of commencement of studies	October 2020	Academic year of realisation of subject	2020/2021
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	e-learning
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		
Name and surname of lecturer (lecturers)	Subject supervisor	mgr inż. Bartosz Bastian	
	Teachers	mgr inż. Bartosz Bastian	

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: 45.0

Engineering Graphics I - Moodle ID: 10130
https://enauczanie.pg.edu.pl/moodle/course/view.php?id=10130

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_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
[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.	[SU1] Assessment of task fulfilment [SU3] Assessment of ability to use knowledge gained from the subject

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	

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