GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Geometry and Engineering Graphics, PG_00041982		
Field of study	Power Engineering, Power Engineering, Power Engineering, Power Engineering, Power 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
Mode of study	Full-time studies	Mode of delivery	e-learning
Year of study	1	Language of instruction	Polish
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	dr hab. inż. Waldemar Karaszewski	
	Teachers	mgr inż. Marek Łubniewski mgr inż. Bartosz Bastian dr inż. Grzegorz Rotta dr hab. inż. Waldemar Karaszewski	

Lesson types and methods of instruction

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	15.0	30.0	0.0	0.0	0.0	45

E-learning hours included: 45.0

Adresy na platformie eNauczanie:
Geometry and Engineering Graphics - Moodle ID: 7519
https://enauczanie.pg.edu.pl/moodle/course/view.php?id=7519

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	5.0	75.0	125

Subject objectives

The aim of the course 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_U04	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 three-dimensional 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.	[SU1] Assessment of task fulfilment [SU3] Assessment of ability to use knowledge gained from the subject
K6_K01	The student independently broadens his knowledge on the basis of the available literature.	[SK2] Assessment of progress of work

Subject contents

The LECTURE of describing the geometric elements and objects. Reference system. Main and additional projecting plane. Axouometric and perpendicular projections. The methods of the machine systems drawing presentation, assembly and working drawings. Standarization of machine parts - selesction and specification of standard elements. EXERCISES Perpendicular projections of the geometric figures and tree-dimensional objects. Section of figures and 3d objects. Presentation of the objects in typical projectivns. Working out the assembly 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
	Practical exercise	50.0%	0.0%
	Colloquium at the end of semester	50.0%	100.0%
Recommended reading	Basic literature	Dobrzański T.: Rysunek techniczny maszynowy. Wydawnictwo Naukowo-Techniczne, W-wa 2006.	
	Supplementary literature	Rigall A., Sadaj J.: Zapis konstrukcji, cz. I. Wydawnictwo "JESAD" Gdańsk	
	eResources addresses	Geometry and Engineering Graphics - Moodle ID: 7519 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=7519	
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		