GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Engineering Graphics II, PG_00039411		
Field of study	Mechatronics, Mechatronics		
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	at the university
Year of study	1	Language of instruction	Polish
Semester of study	2	ECTS credits	2.0
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. Katarzyna Mazur dr inż. Katarzyna Zasińska	

Lesson types and methods of instruction

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	0.0	0.0	0.0	15.0	0.0	15

E-learning hours included: 0.0

Adresy na platformie eNauczanie:
Engineering Graphics II - Moodle ID: 13550
https://enauczanie.pg.edu.pl/moodle/course/view.php?id=13550

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	15	5.0	30.0	50

Subject objectives

The aim of the course is to learn the principles of drawing machine parts, connections used in machine construction and preparation of assembly drawings.

Learning outcomes

Course outcome	Subject outcome	Method of verification
K6_W04	A student draws based 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_U06	A student draws based 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
K6_U05	A student draws based 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.	[SU3] Assessment of ability to use knowledge gained from the subject [SU1] Assessment of task fulfilment

Subject contents

Principles of assembly drawings. Permanent joints presentation of machine elements (welded, glue, rivet joints). Temporary fastenings presentation of machine elements (screw, shaft-hub joints). Presentation ways of standardized machine elements (bearings, gears, clutches, brakes, shafts and axles). Presentation ways of springs and seals. Basic information about technical drawings in electrotechnics and electronics, electric diagrams. Pneumatics and hydraulics diagrams. Drawings and machine diagrams practical reading. Introduction to computer graphics.

Prerequisites and co-requisites

Engineering Graphics I

Based knowledge of theory of machines and metrology.

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
Final exam	60.0%	60.0%
Design tasks	60.0%	40.0%

Recommended reading

Basic literature	Dobrzański T .: Technical and machine drawing. WNT, Warsaw, 2017. Rigall A., Sadaj J .: Technical drawing - Descriptive geometry, Gdansk University of Technology, 2003.
Supplementary literature	Kurmaz L.W.: Designing nodes and machine parts, publishing house of the Kielce University of Technology, 2007
eResources addresses	Engineering Graphics II - Moodle ID: 13550 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=13550

Example issues/ example questions/ tasks being completed	Preparation of the assembly drawing of the welded joint Making an assembly drawing of a screw connection Preparation of the assembly drawing of the drive unit system
Work placement	Not applicable