



Subject card

Subject name and code	Engineering Graphics II, PG_00040167						
Field of study	Mechanical Engineering						
Date of commencement of studies	October 2021		Academic year of realisation of subject		2021/2022		
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	2		ECTS credits		2.0		
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 hab. inż. Jacek Łubiński				
	Teachers		dr hab. inż. Jacek Łubiński 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	15.0	0.0	30
	E-learning hours included: 0.0						
	Adresy na platformie eNauczanie: Engineering Graphics II, W/P, Design and Production engineering, sem. letni 2021/2022, (PG_00040167) - Moodle ID: 23314 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=23314						
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	30		5.0		15.0	50
Subject objectives	The aim of the classes is to learn the principles of technical drawing of machine parts and connections used in machine building. Preparation of working and assembly drawings.						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	K6_W07		The student is capable of - drawing machine parts with current technical drawing norms, - creating working and assembly drawings, - reading information of machine elements on assembly drawings, - understands spatial construction of mechanical assemblies, - reads diagrams of the technical systems.		[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 is capable of - drawing machine parts with current technical drawing norms, - creating working and assembly drawings, - reading information of machine elements on assembly drawings, - understands spatial construction of mechanical assemblies, - reads diagrams of the technical systems.		[SU3] Assessment of ability to use knowledge gained from the subject [SU1] Assessment of task fulfilment		

Subject contents	Rules of assembly draing.			
	Permanent joints (wealding, soldering)			
	Non permanent joints (threads)			
	Normalized parts on drawing (bearings, gears, clutch, axies)			
	Sealing and flexible parts.			
	Electircal diagrams			
	Pneumatic and hydraulic diagram.			
Prerequisites and co-requisites	Engineering Graphics II			
	Basics of machine building and metrology			
Assessment methods and criteria	Subject passing criteria		Passing threshold	Percentage of the final grade
	Design classes		60.0%	40.0%
	Final colloquium		60.0%	60.0%
Recommended reading	Basic literature		Zapis Konstrukcji Geometria Wykreślna, A. Rigall, J. Sadaj Rysunek Techniczny T. Dobrzański	
	Supplementary literature		Schaum's outline of theory and problems of Descriptive geometry - Minor Clyde Hawk	
	eResources addresses		Engineering Graphics II, W/P, Design and Production engineering, sem. letni 2021/2022, (PG_00040167) - Moodle ID: 23314 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=23314	
Example issues/ example questions/ tasks being completed	Assembly drawing of welding part			
	Assembly drawing of threaded connection			
	Drawing of drive system			
Work placement	Not applicable			