



Subject card

Subject name and code	Project-Computer Recording, PG_00061760						
Field of study	Automation, Robotics and Control Systems						
Date of commencement of studies	October 2022		Academic year of realisation of subject		2023/2024		
Education level	first-cycle studies		Subject group				
Mode of study	Full-time studies		Mode of delivery		at the university		
Year of study	2		Language of instruction		Polish		
Semester of study	3		ECTS credits		3.0		
Learning profile	general academic profile		Assessment form		assessment		
Conducting unit	Faculty of Electrical and Control Engineering						
Name and surname of lecturer (lecturers)	Subject supervisor		dr inż. Wiktor Waszkowiak				
	Teachers		dr inż. Piotr Tojza				
			dr inż. Wiktor Waszkowiak				
			dr inż. Łukasz Doliński				
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	30.0	0.0	0.0	45
	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	45		3.0		27.0	75
Subject objectives	The ability to create technical documentation, including electrical documentation, with the use of CAD software supporting design.						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K6_W10] has basic knowledge related to mechatronics and robotics systems		Students will describe the principles of orthographic projection and explain how views and sections of machine elements are represented		[SW1] Assessment of factual knowledge		
	[K6_K02] can work in a group taking on different roles in it		Student selects appropriate design support tools for teamwork		[SK1] Assessment of group work skills		
	[K6_U02] can work individually and in a team, can communicate using various techniques in a professional environment, as well as document and analyze the results of their work, can estimate the time needed to perform the entrusted task can prepare and present a presentation on the problems and results of an engineering task		Student produces technical documentation in accordance with current standards		[SU1] Assessment of task fulfilment		
Subject contents	Graphical representation of spatial elements on a plane: orthographic projection; basic concepts concerning the structure and rules of its drawing, types of structure notation, drafting paper sizes and scales; methods of graphical representation of the structure and dimension system; graphic representation of construction connections; detachable and non-detachable connections; assembly drawings and detail drawings; the rules for creating drawings using of AutoCad software; graphic representation of electrical systems; presentation of selected graphic symbols used in mechanics, electrical engineering, automatics and power engineering.						
Prerequisites and co-requisites	Basic computer skills						

Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	practical test	50.0%	50.0%
	Design task during laboratory classes	50.0%	50.0%
Recommended reading	Basic literature	1. Dobrzański T.: Rysunek techniczny maszynowy. Warszawa: WNT, 1998. 2. Mazur J., Kosiński k., Polakowski K. Grafika inżynierska z wykorzystaniem metod CAD. Oficyna Wydawnicza Politechniki Warszawskiej. Warszawa 2004. 3. Pikoń A. AutocCAD PL. Helion. Gliwice 2006.	
	Supplementary literature	1. www.cad.pl	
	eResources addresses	Adresy na platformie eNauczanie: KOMPUTEROWY ZAPIS PROJEKTU [2023/24] - Moodle ID: 32125 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=32125	
Example issues/ example questions/ tasks being completed	Prepare the technical documentation stated object.		
Work placement	Not applicable		