



Subject card

Subject name and code	, PG_00058637						
Field of study	Mechatronics						
Date of commencement of studies	February 2023		Academic year of realisation of subject		2023/2024		
Education level	second-cycle studies		Subject group				
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		4.0		
Learning profile	general academic profile		Assessment form		assessment		
Conducting unit	Zakład Pojazdów Mechanicznych i Techniki Militarnej -> Institute of Mechanics and Machine Design -> Faculty of Mechanical Engineering and Ship Technology						
Name and surname of lecturer (lecturers)	Subject supervisor		prof. dr hab. inż. Jerzy Ejsmont				
	Teachers		dr hab. inż. Piotr Mioduszewski				
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	0.0	0.0	30.0	0.0	30
	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	30		0.0		0.0	30
Subject objectives	Acquisition of skills in the field of designing, building and improving the operation of a remotely controlled vehicle.						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K7_K81] is able to cooperate in an international team at his own university and during practics and foreign studies						
	[K7_W09] knows general rules of individual and team work organisation as well as enterprise management that utilise knowledge in the area of technical sciences and science disciplines appropriate for mechatronics		The student analyzes the purchasing needs to perform the task and carries out and settles purchases.		[SW1] Assessment of factual knowledge [SW3] Assessment of knowledge contained in written work and projects		
	[K7_K03] is able to cooperate and work in group, taking various roles and choosing priorities that lead to perform tasks		The student is a member of the group in which he designs and builds the vehicle.		[SK5] Assessment of ability to solve problems that arise in practice [SK1] Assessment of group work skills		
	[K7_K01] understands the need for learning during the whole life; can inspire and organise process of mechatronic education and self-education		The student uses his knowledge and trains in the remaining scope.		[SK3] Assessment of ability to organize work [SK5] Assessment of ability to solve problems that arise in practice		
	[K7_U10] is able - according to a given specification and taking into consideration non-technical aspects - to design or modify non-stationary mechatronic system or process, calculate costs of design and development and perform the project - at least partially - utilising techniques of mechatronics design		The student designs, builds, programs and improves the remotely controlled vehicle.		[SU1] Assessment of task fulfilment [SU4] Assessment of ability to use methods and tools		

Subject contents	Design, build and program a remote-controlled vehicle to perform specific tasks during an organized competition.As part of the project, the necessary vehicle traction calculations should be carried out, a model (with visualization) created and a functional vehicle developed and programmed.The vehicles will be designed and manufactured in groups of 3-4 students. Each group will receive a subsidy for the construction of the vehicle.A separate group (2-3 Students) will be responsible for the modernization, design of the development and will extend it with new competitions on the parkour where the vehicle competition will be held.		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Vehicle design documentation and a roadworthy vehicle	100.0%	100.0%
Recommended reading	Basic literature	No requirements	
	Supplementary literature	-	
	eResources addresses	Adresy na platformie eNauczanie:	
Example issues/ example questions/ tasks being completed			
Work placement	Not applicable		