

表 GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Vehicle Safety, PG_00039972								
Field of study	Mechanical Engineering, Mechanical Engineering								
Date of commencement of studies	October 2020		Academic year of realisation of subject			2022/2023			
Education level	first-cycle studies		Subject group			Optional subject group 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	3		Language of instruction			Polish			
Semester of study	6		ECTS credits			1.0			
Learning profile	general academic profile		Assessment form			assessment			
Conducting unit	Department of Machin	Department of Machine Design and Vehicles -> Faculty of Mechanical Engineering and Ship Techr					echnology		
Name and surname	Subject supervisor	dr inż. Ryszard Woźniak							
of lecturer (lecturers)	Teachers		dr inż. Ryszard Woźniak						
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project		Seminar	SUM	
	Number of study hours	15.0	0.0	0.0	0.0		0.0	15	
	E-learning hours included: 0.0								
Learning activity and number of study hours	Learning activity	Participation ir classes includ plan	n didactic ed in study	Participation in consultation hours		Self-study		SUM	
	Number of study hours	15		4.0		6.0		25	
Subject objectives	Acquainted with the principles of designing safe cars. Translating these principles into concrete design solutions vehicles and their respective teams.								
Learning outcomes	Course outcome Subject outcome Method of verification								
	[K6_U11] is able to analyse the operation of devices and compare the construction solutions applying usage, safety, environmental, economic and legal criteria		Active and passive safety. Principles of constructing safe vehicles. Chassis, chassis, braking systems, lighting, tires, seat belts, airbags, fire extinguishing systems. ABS, ASR and ESP systems. Air conditioning and satellite navigation. Reversing sensors and car radar. Research of vehicles and their assemblies. The impact of the road and road traffic organization. Safe operation of vehicles. Child safety in vehicles.			[SU1] Assessment of task fulfilment			
	[K6_W08] possesses basic knowledge including the methodology of designing machine parts, mechanical devices, selection of construction materials, manufacturing and operation, with the lifetime cycle		Active and passive safety. Principles of constructing safe vehicles. Chassis, chassis, braking systems, lighting, tires, seat belts, airbags, fire extinguishing systems. ABS, ASR and ESP systems. Air conditioning and satellite navigation. Reversing sensors and car radar. Research of vehicles and their assemblies. The impact of the road and road traffic organization. Safe operation of vehicles. Child safety in vehicles.			[SW1] Assessment of factual knowledge			
Subject contents	Active and passive safety. Principles of construction of safe vehicles. Bodys, chassises, bracking systems, lights, tyres, safety belts, air bags, fire protection systems. ABS, ASR and ESP systems. Air conditioning and GPS. Backing sensors and car radar. Vehicle and it's units researches. Road and traffic organization influence. Safe maintenance of vehicle. Children safety in vehicles.								
Prerequisites and co-requisites	No requirements								

Assessment methods	Subject passing criteria	Passing threshold	Percentage of the final grade	
and criteria	Midterm colloquium	50.0%	100.0%	
Recommended reading	Basic literature	1. Wicher J.: Bezpieczeństwo samochodów i ruchu drogowego. WKiŁ, Warszawa, 2004. 2. Afanasjew L. L., Djakow A. B., Ilarionow W. A.: Czynne bezpieczeństwo samochodu. WKiŁ, Warszawa, 1986. 3. Iwanow W. N., Lalin W. A.: Bierne bezpieczeństwo samochodu. WKił, Warszawa, 1984. 4. Technika Motoryzacyjna - miesięczniki. 5. Auto- Technika Motoryzacyjna - miesięczniki. 6. Auto-International - miesięczniki. 7. Auto- Świat - tygodniki. 8. Materiały reklamowe firm: BMW, Mercedes-Benz, Renault, Opel, Bosch.		
	Supplementary literature	No requirements		
	eResources addresses	Adresy na platformie eNauczanie:		
Example issues/ example questions/ tasks being completed				
Work placement	Not applicable			