



## Subject card

Subject name and code	Vehicle diagnostics, PG_00039933						
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	Institute of Mechanics and Machine Design -> Faculty of Mechanical Engineering and Ship Technology						
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. inż. Grzegorz Ronowski				
	Teachers		dr inż. Sławomir Sommer				
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	0.0	15.0	0.0	0.0	15
	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	15		4.0		6.0	25
Subject objectives	Introduction to basic issues related to vehicle diagnostics.						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[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 able to diagnose the basic systems of a vehicle.		[SU4] Assessment of ability to use methods and tools		
	[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		The student has a basic knowledge of vehicle diagnostics.		[SW1] Assessment of factual knowledge		
Subject contents	Measurement of braking forces on a board. The measurement of the car's suspension geometry. Researchslack in the steering. Measuring the compression engine. Measurement of leakage of the combustionchambers of the engine. Analysis of diagnostic information in OBD car.						
Prerequisites and co-requisites							
Assessment methods and criteria	Subject passing criteria		Passing threshold		Percentage of the final grade		
	Reports		56.0%		100.0%		

Recommended reading	Basic literature	<p>1. Hebda M., Niziński S., Pelc H.: Podstawy diagnostyki pojazdów mechanicznych. WKŁ. Warszawa. 1980.2. Trzeciak K.: Diagnostyka samochodów osobowych. WKŁ. Warszawa. 1998.3. Merkisz J., Marurek St.: Pokładowe systemy diagnostyczne pojazdów samochodowych. WKŁ. Warszawa. 2004.4. Niziński S.: Diagnostyka samochodów osobowych i ciężarowych. Dom Wydawniczy BELLONA Warszawa. 1999.</p>
	Supplementary literature	<p>1. Reimpel J.: Budowa samochodów Podstawy Konstrukcji, WKŁ, warszawa, 1997.</p>
	eResources addresses	Adresy na platformie eNauczanie:
Example issues/ example questions/ tasks being completed	Measurement of braking force on a bench plate.	
Work placement	Not applicable	