



Subject card

Subject name and code	Physics I, PG_00041649						
Field of study	Transport and Logistics, Transport and Logistics						
Date of commencement of studies	October 2020	Academic year of realisation of subject				2020/2021	
Education level	first-cycle studies	Subject group			Obligatory subject group in the field of study		
Mode of study	Full-time studies	Mode of delivery			at the university		
Year of study	1	Language of instruction			Polish		
Semester of study	1	ECTS credits			4.0		
Learning profile	general academic profile	Assessment form			exam		
Conducting unit	Department of Control and Power Engineering -> Faculty of Ocean Engineering and Ship Technology						
Name and surname of lecturer (lecturers)	Subject supervisor		dr inż. Klaudia Wrzask				
	Teachers		dr inż. Klaudia Wrzask				
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	30.0	30.0	0.0	0.0	0.0	60
	E-learning hours included: 0.0						
Fizyka 1 dla Kierunku Transport i Logistyka 2020/2021 - Moodle ID: 5786 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=5786							
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	60		10.0		30.0	100
Subject objectives	Acquisition of basic knowledge from selected branches of classical and modern physics. Gaining skills of qualitative understanding of selected principles and laws of classical and contemporary physics and quantitative analysis of selected phenomena in this field. Learning basic techniques and methods measurement of selected physical quantities						
Learning outcomes	Course outcome		Subject outcome			Method of verification	
	[K6_U02] can work individually and in a team, communicate through various techniques in professional environment and also record, analyse, and present the results of work, can estimate the time needed to complete a given task		The student is able to work individually and in a team, communicate using various techniques in a professional environment, as well as document, analyze and present the results of his work, can estimate the time needed to complete the task			[SU3] Assessment of ability to use knowledge gained from the subject [SU1] Assessment of task fulfilment	
[K6_W02] has a basic knowledge in physics, including technical mechanics, fluid mechanics, solid-state physics, optics and acoustics necessary to understand basic physical phenomena occurring in transport		Has knowledge of the basics of physics in range presented on lecture; independently in writing or in an oral statement correctly and succinctly present issues discussed on content lectures these effects knowledge education; use passed and described higher knowledge for analysis selected issues about engineering character			[SW1] Assessment of factual knowledge		
Subject contents							
Prerequisites and co-requisites							

Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
		50.0%	50.0%
		50.0%	50.0%
Recommended reading	Basic literature		
	Supplementary literature		
	eResources addresses		
Example issues/ example questions/ tasks being completed	<p>1. Give the second principle of dynamics and conclusions resulting from it</p> <p>2. What are conservative and non-conservative forces; how much is the work they do; Provide examples of conservative and non-conservative forces</p> <p>3. Give examples of systems moving in a harmonic way; What equation describes the harmonic motion straight?; Write and draw the dependence of the deflection from the position of the equilibrium from time; What happens if the frequency of the forcing force is close to the natural frequency of the system?</p> <p>4. Draw and describe the serial connection of three capacitors with capacities C1, C2 and C3; Set dependence on equivalent capacity</p> <p>5. Ohm law for the closed circuit: give the formula and explain it in the diagram with the current source and the receiver</p> <p>6. Give and explain the formula for Lorentz strength. How he changes a return of strength depending on the signs of the load (draw)?</p>		
Work placement	Not applicable		