

Subject card

Subject name and code	Physics, PG_00044538								
Field of study	Transport								
Date of commencement of studies	October 2021		Academic year of realisation of subject			2021/2022			
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	2		ECTS credits			3.0			
Learning profile	general academic profile		Assessment form			assessment			
Conducting unit	Department of Solid S	State Physics ->	Faculty of Ap	plied Physics	and Matl	hematic	S		
Name and surname	Subject supervisor		dr inż. Anna Rybicka						
of lecturer (lecturers)	Teachers		dr inż. Anna Rybicka						
Lesson types and methods	Lesson type	Lecture	Tutorial	Laboratory	Project		Seminar	SUM	
of instruction	Number of study hours	15.0	15.0	0.0	0.0		0.0	30	
	E-learning hours included: 0.0								
	Adresy na platformie eNauczanie: FIZYKA II - TRANSPORT _21/22 - Moodle ID: 19231 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=19231								
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		5.0		40.0		75	
Subject objectives	Knowledge of basic principles of thermodynamics and modern physics. Ability of analizing physical phenomena, solving of technical problems.								
Learning outcomes	Course outcome		Subject outcome			Method of verification			
	[K6_U06] able to plan and conduct simple laboratory and operational experiments and simulations in the area of transport; able to interpret the results and formulate conclusions		results and formulate conclusions.			[SU2] Assessment of ability to analyse information [SU3] Assessment of ability to use knowledge gained from the subject			
	[K6_W03] has basic knowledge of hydromechanics, thermodynamics, machine design, materials science and electrical engineering required for understanding the principles of construction and operation of means of transport		Students identyfy basic physical phenomena, formulate and apply them.			[SW1] Assessment of factual knowledge			
	[K6_W02] has basic knowledge of physics which includes technical mechanics, fluid mechanics, solid state physics, optics and acoustics required for understanding basic phenomena of physics which occur in transport		Students know basic pfoblems of thermodynamisc, understand physical laws and analize technical problems.			[SW1] Assessment of factual knowledge			

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Elements of special relativity theory. Black body radiation. Corpuscular and wave character of electromagnetic radiation. Atom models. Schroedinger equation. Elements of solid state physics. Radioactivity. Prerequisities and co-requisites Assessment methods and criteria Euclure - exam in theory Exercises - practical test is 50.0% 40.0% Exercises - practical test is 50.0% 60.0% Exercises - practical test is 50.0% 6	Subject contents	Fundamental laws of macroscopic thermodynamics.							
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Radioactive desintegration law.									
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Work placement Not applicable	Work placement	Not applicable							

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