



Subject card

Subject name and code		Physics 2, PG_00042031						
Field of study		Power Engineering, Power Engineering						
Date of commencement of studies		October 2023	Academic year of realisation of subject			2024/2025		
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		2	Language of instruction			English		
Semester of study		3	ECTS credits			2.0		
Learning profile		general academic profile	Assessment form			assessment		
Conducting unit		Faculty of Ocean Engineering and Ship Technology						
Name and surname of lecturer (lecturers)		Subject supervisor		dr hab. inż. Małgorzata Śmiątek-Telega				
		Teachers		dr hab. inż. Małgorzata Śmiątek-Telega				
Lesson types and methods of instruction		Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
		Number of study hours	0.0	0.0	30.0	0.0	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	5.0		15.0	50	
Subject objectives		Acquisition of practical skills in selected branches of physics, both classical and modern. Acquiring the skills of qualitative understanding of selected principles and laws of classical physics and modern and quantitative analysis of selected phenomena in this area Understanding the basic techniques and methods of measurement of selected physical.						
Learning outcomes		Course outcome		Subject outcome		Method of verification		
		[K6_U01] can obtain information from literature and other sources, organize, interpret it and draw and formulate conclusions; has the ability to self-educate, interprets the results of completed engineering tasks, is able to design simple energy systems and their systems						
		[K6_W02] has a basic knowledge of physics (including optics, electricity and magnetism), chemistry, technical thermodynamics, fluid mechanics and general mechanics needed to understand and describe the basic phenomena occurring in devices and systems, energy plants and transmission networks and their environment		The student has a basic knowledge of physics, technical thermodynamics and fluid mechanics necessary to understand the basic phenomena needed to perform exercises in the physics laboratory.		[SW3] Assessment of knowledge contained in written work and projects		
Subject contents		Experiments are based on kinematics, dynamics, simple harmonic motion, wave motion, acoustic, optics, electrostatics and magnetostatics.						
Prerequisites and co-requisites		Course is dedicated for students who taken high school physics and mathematics at extended level passed the exam of "Introduction to physics"						
Assessment methods and criteria		Subject passing criteria		Passing threshold		Percentage of the final grade		
		Physics laboratory		67.0%		100.0%		
Recommended reading		Basic literature		Małgorzata Śmiątek-Telega, Fizyka dla Studentów Wydziału Oceanotechniki i Okrętownictwa, Instrukcje do ćwiczeń laboratoryjnych. D. Halliday, R. Resnick, Fundamentals of Physics, Wiley, any edition				

	Supplementary literature	1. M.Herman, A.Kalestyński, L.Widomski: "Podstawy fizyki dla kandydatów na wyższe uczelnie", Państwowe Wydawnictwo Naukowe. 2. E-experiments in physics
	eResources addresses	Adresy na platformie eNauczanie: PG_00042031 PHYSICS 2-ET- 24/25 - Moodle ID: 40647 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=40647
Example issues/ example questions/ tasks being completed	Determining the density of liquids Examination of the electric field distribution Measurement of the basic period of a mathematical pendulum. Millikan's Experiment The study of bodies on an inclined plane - determination of the coefficient of static friction	
Work placement	Not applicable	

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