



Subject card

Subject name and code	Physics 2, PG_00042031						
Field of study	Power Engineering						
Date of commencement of studies	October 2025		Academic year of realisation of subject		2026/2027		
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 Śmiałek-Telega				
	Teachers						
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 Śmiałek-Telega, Fizyka dlaStudentów 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:
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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