GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Physics 2, PG_00042031		
Field of study	Power Engineering		
Date of commencement of studies	October 2026	Academic year of realisation of subject	2027/2028
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

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_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
[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		

Subject contents

Course content – laboratory
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	
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	
Practical activites within the subject	Not applicable	

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