



## Subject card

Subject name and code	TECHNICAL PHYSICS, PG_00061391						
Field of study	Engineering Management						
Date of commencement of studies	October 2023	Academic year of realisation of subject			2023/2024		
Education level	first-cycle studies	Subject group			Obligatory subject group in the field of study		
Mode of study	Part-time studies	Mode of delivery			at the university		
Year of study	1	Language of instruction			Polish		
Semester of study	2	ECTS credits			6.0		
Learning profile	general academic profile	Assessment form			exam		
Conducting unit	Department of Atomic, Molecular and Optical Physics -> Faculty of Applied Physics and Mathematics						
Name and surname of lecturer (lecturers)	Subject supervisor		dr inż. Ireneusz Linert				
	Teachers		dr inż. Ireneusz Linert				
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	16.0	0.0	16.0	0.0	0.0	32
	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	32		7.0		111.0	150
Subject objectives	Interprets physical phenomena in an advanced way, using properly selected analytical and empirical methods						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K6_U04] formulates logical solutions to complex or unstructured problems		formulates correct conclusions based on the analysis of complex physical phenomena		[SU3] Assessment of ability to use knowledge gained from the subject		
	[K6_W02] demonstrates advanced preparation in the methods and techniques of formulating and solving problems		demonstrates preparation for formulating and solving problems, based on advanced knowledge of physical phenomena		[SW1] Assessment of factual knowledge		
Subject contents	Mechanics Optics Warm Vibrating and wave motion Statistical physics Atomic physics Nuclear physics Quantum mechanics						
Prerequisites and co-requisites							
Assessment methods and criteria	Subject passing criteria		Passing threshold		Percentage of the final grade		
	Final exam		50.0%		50.0%		
	Laboratories		50.0%		50.0%		
Recommended reading	Basic literature		D. Halliday, R. Resnick and J. Walker, Podstawy fizyki, PWN tom 1-5 Feynmana Wykłady z Fizyki, PWN Warszawa J. Orear, Fizyka, WNT, Tom 1 i 2				
	Supplementary literature		Paul G. Hewitt, Fizyka wokół nas, PWN Warszawa I. W. Sawieliew, Wykłady z Fizyki, PWN, Tom 1-3				
	eResources addresses		Adresy na platformie eNauczanie: Interesująca Fizyka Techniczna - ZIE - Lato 2023/24 - Moodle ID: 20459 <a href="https://enauczanie.pg.edu.pl/moodle/course/view.php?id=20459">https://enauczanie.pg.edu.pl/moodle/course/view.php?id=20459</a>				

Example issues/ example questions/ tasks being completed	Mechanics laws
Work placement	Not applicable