

Subject card

Subject name and code	copy, PG_00155884						
Field of study	Medical Physics						
Date of commencement of studies	October 2024		Academic year of realisation of subject			2026/2027	
Education level	undergraduate 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	3		Language of instruction			Polish not applicable	
Semester of study	5		ECTS credits			7.0	
Learning profile	academic		Assessment form				
Conducting unit	Faculty of Mathematics, Physics and Informatics -> Rektor						
Name and surname of lecturer (lecturers)	Subject supervisor		prof. dr hab. Stanisław Pogorzelski				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	30.0	15.0	45.0	0.0	0.0	90
	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	90		0.0		120.0	210
Subject objectives	not applicable						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[FIZMEDL3_W01] has general knowledge of basic physical concepts, principles and theories, understands their historical development and importance not only for physics, but also for science and life sciences and knowledge of the world	not applicable	[SW4] test/exam - oral or written [SW2] presentation/project/paper/report [SW3] text preparation/written work
	[FIZMEDL3_W02] understands the role of physical experiment, mathematical theoretical models approximating reality and computer simulations in the methodology of scientific research; is aware of technological, apparatus and methodological limitations in scientific research	not applicable	[SW4] test/exam - oral or written [SW2] presentation/project/paper/report [SW3] text preparation/written work
	[FIZMEDL3_W03] knows how to plan and perform a simple physical experiment and analyze the obtained results; knows the elements of the theory of measurement uncertainty as applied to physical experiments, knows the basic units of the SI system and its most important derived units; knows other systems of units of measurement	not applicable	[SW4] test/exam - oral or written [SW2] presentation/project/paper/report [SW3] text preparation/written work
	[FIZMEDL3_W09] has knowledge about the elementary components of matter and the types of fundamental interactions between them, about the manifestations of these interactions in phenomena occurring on various scales, from subatomic to astronomical, knows the time and energy scales related to these phenomena	not applicable	[SW4] test/exam - oral or written [SW2] presentation/project/paper/report [SW3] text preparation/written work
	[FIZMEDL3_W10] knows the basic computational methods used in classical mechanics, electrodynamics, quantum mechanics and statistical physics	not applicable	[SW4] test/exam - oral or written [SW2] presentation/project/paper/report [SW3] text preparation/written work
	[FIZMEDL3_W12] knows basic measuring instruments, their structure and principles of operation, and the use of simple electronic systems	not applicable	[SW4] test/exam - oral or written [SW2] presentation/project/paper/report [SW3] text preparation/written work
	[FIZMEDL3_W13] knows the basic principles of ergonomics and occupational health and safety	not applicable	[SW4] test/exam - oral or written [SW2] presentation/project/paper/report [SW3] text preparation/written work
	[FIZMEDL3_U01] can formulate basic physical laws using mathematical formalism	not applicable	[SU2] presentation/project/paper/report [SU3] text preparation/written work [SU4] test/exam - oral or written
	[FIZMEDL3_U02] has the ability to measure basic physical quantities; can develop, describe and present the results of simple physical experiments and computer simulations; is able to perform quantitative analyzes and formulate qualitative conclusions on this basis; can estimate measurement uncertainties	not applicable	[SU2] presentation/project/paper/report [SU3] text preparation/written work [SU4] test/exam - oral or written
	[FIZMEDL3_U16] is able to communicate effectively with co-workers and other employees, is able to work in a team, and is able to properly manage his and his co-workers' time	not applicable	[SU2] presentation/project/paper/report [SU3] text preparation/written work [SU4] test/exam - oral or written
	[FIZMEDL3_U24] can independently plan and implement their own learning	not applicable	[SU2] presentation/project/paper/report [SU3] text preparation/written work [SU4] test/exam - oral or written

	Course outcome	Subject outcome	Method of verification
	[FIZMEDL3_K01] knows the limitations of his own knowledge and understands the need for further education	not applicable	[SK2] presentation/project/paper/report [SK3] text preparation/written work [SK4] test/exam - oral or written
	[FIZMEDL3_K05] understands the need and importance of popularizing physical knowledge	not applicable	[SK2] presentation/project/paper/report [SK3] text preparation/written work [SK4] test/exam - oral or written
	[FIZMEDL3_K06] is aware of professionalism and compliance with the principles of professional ethics	not applicable	[SK2] presentation/project/paper/report [SK3] text preparation/written work [SK4] test/exam - oral or written
	[FIZMEDL3_K07] has a sense of responsibility for jointly performed tasks; is able to cooperate and work in a group, taking on various roles in it	not applicable	[SK2] presentation/project/paper/report [SK3] text preparation/written work [SK4] test/exam - oral or written
	[FIZMEDL3_K08] can speak competently about basic problems of physics and its applications	not applicable	[SK2] presentation/project/paper/report [SK3] text preparation/written work [SK4] test/exam - oral or written
Subject contents	not applicable		
Prerequisites and co-requisites	not applicable		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	not applicable	51.0%	20.0%
	not applicable	51.0%	55.0%
	not applicable	51.0%	25.0%
Recommended reading	Basic literature	not applicable	
	Supplementary literature	not applicable	
	eResources addresses	Adresy na platformie eNauczanie:	
Example issues/ example questions/ tasks being completed	not applicable		
Work placement	Not applicable		

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