

Subject card

Subject name and code	Principles of physics for medical physics II, PG_00155872						
Field of study	Medical Physics						
Date of commencement of studies	October 2024		Academic year of realisation of subject		2024/2025		
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	1		Language of instruction		Polish not applicable		
Semester of study	2		ECTS credits		6.0		
Learning profile	academic		Assessment form				
Conducting unit	Faculty of Mathematics, Physics and Informatics -> Rektor						
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. Ryszard Drozdowski				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	45.0	45.0	0.0	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		90.0	180
Subject objectives	not applicable						

Learning outcomes	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	[SK3] text preparation/written work [SK4] test/exam - oral or written [SK8] observation of student's independent or team work
	[FIZMEDL3_U07] has the ability to quantitatively analyze vibration and wave motion and describe optical and acoustic phenomena and the interaction of light with matter	not applicable	[SU3] text preparation/written work [SU4] test/exam - oral or written [SU8] observation of student's independent or team work
	[FIZMEDL3_W07] has knowledge of the basic phenomena and laws of geometric optics, wave optics and photometry	not applicable	[SW4] test/exam - oral or written [SW1] oral statement/ conversation/discussion [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 [SW1] oral statement/ conversation/discussion [SW3] text preparation/written work
	[FIZMEDL3_K05] understands the need and importance of popularizing physical knowledge	not applicable	[SK3] text preparation/written work [SK4] test/exam - oral or written [SK8] observation of student's independent or team work
	[FIZMEDL3_U05] can describe electric and magnetic fields in vacuum and in material media, as well as physical phenomena occurring in electric circuits; can classify material media according to the way they interact with the external electromagnetic field	not applicable	[SU3] text preparation/written work [SU4] test/exam - oral or written [SU8] observation of student's independent or team work
	[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 [SW1] oral statement/ conversation/discussion [SW3] text preparation/written work
	[FIZMEDL3_W06] knows and understands basic electromagnetic phenomena and the laws of electrodynamics formulated in the language of Maxwell's equations	not applicable	[SW4] test/exam - oral or written [SW1] oral statement/ conversation/discussion [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 [SW1] oral statement/ conversation/discussion [SW3] text preparation/written work
Subject contents	[FIZMEDL3_U01] can formulate basic physical laws using mathematical formalism	not applicable	[SU3] text preparation/written work [SU4] test/exam - oral or written [SU8] observation of student's independent or team work
	[FIZMEDL3_K08] can speak competently about basic problems of physics and its applications	not applicable	[SK3] text preparation/written work [SK4] test/exam - oral or written [SK8] observation of student's independent or team work
Prerequisites and co-requisites	not applicable		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	not applicable	51.0%	45.0%
	not applicable	0.0%	5.0%
	not applicable	51.0%	50.0%
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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