

Subject card

Subject name and code	Master laboratory 2, PG_00165911						
Field of study	Medical Physics						
Date of commencement of studies	October 2024		Academic year of realisation of subject		2025/2026		
Education level	postgraduate studies		Subject group		Obligatory subject group in the field of study Optional subject group		
Mode of study	full-time studies		Mode of delivery		at the university		
Year of study	2		Language of instruction		Polish		
Semester of study	4		ECTS credits		8.0		
Learning profile	academic		Assessment form				
Conducting unit	Faculty of Mathematics, Physics and Informatics -> Rektor						
Name and surname of lecturer (lecturers)	Subject supervisor						
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	0.0	75.0	0.0	0.0	75
	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	75		0.0		125.0	200
Subject objectives	not applicable						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[FIZMEDMU2_K10] complies with work safety rules	not applicable	[SK1] oral statement/conversation/discussion [SK6] demonstration of practical skills
	[FIZMEDMU2_K09] can think and act in an entrepreneurial way	not applicable	[SK1] oral statement/conversation/discussion [SK2] presentation/project/paper/report [SK8] observation of student's independent or team work
	[FIZMEDMU2_K08] can formulate competent opinions on professional issues and opinions on certain issues that concern public opinion, such as the greenhouse effect, renewable energy or nuclear energy	not applicable	[SK1] oral statement/conversation/discussion [SK2] presentation/project/paper/report
	[FIZMEDMU2_K07] is aware of responsibility for jointly (team) research tasks	not applicable	[SK2] presentation/project/paper/report [SK5] implementation of a problem task [SK8] observation of student's independent or team work
	[FIZMEDMU2_U12] can use English in the field of physics, mathematics and computer science, in accordance with the requirements specified for level B2+ of the Common European Framework of Reference for Languages, to the extent that allows for independent supplementation of education and communication with specialists in the same or related specialization	not applicable	[SU1] oral statement/conversation/discussion [SU2] presentation/project/paper/report
	[FIZMEDMU2_U11] is able to determine directions for further improvement of knowledge and skills (including self-education) in the selected specialty and beyond it	not applicable	[SU1] oral statement/conversation/discussion [SU2] presentation/project/paper/report
	[FIZMEDMU2_U04] can find necessary information in professional literature, both in databases and other sources; is able to reproduce the line of reasoning or the course of an experiment described in the literature, taking into account the assumptions and approximations made	not applicable	[SU1] oral statement/conversation/discussion [SU2] presentation/project/paper/report
	[FIZMEDMU2_W09] knows and understands the basic concepts and principles of industrial property and copyright protection and the need to manage intellectual property resources; knows the rules for using patent information resources	not applicable	[SW1] oral statement/conversation/discussion [SW2] presentation/project/paper/report
	[FIZMEDMU2_W03] knows advanced experimental, observational and numerical techniques allowing to plan and perform a complex physical experiment or computer simulation	not applicable	[SW1] oral statement/conversation/discussion [SW2] presentation/project/paper/report
	[FIZMEDMU2_W04] knows the principles of operation of measurement systems and research equipment specific to the area of physics related to the selected specialization or knows advanced methods of theoretical and mathematical physics	not applicable	[SW1] oral statement/conversation/discussion [SW2] presentation/project/paper/report [SW5] implementation of a problem task
	[FIZMEDMU2_U02] has the ability to plan and conduct basic and advanced experiments or observations in specific areas of physics or its applications	not applicable	[SU2] presentation/project/paper/report

	Course outcome	Subject outcome	Method of verification
	[FIZMEDMU2_U03] is able to critically analyze the results of measurements, observations or theoretical calculations, including assessing the accuracy of the results	not applicable	[SU1] oral statement/conversation/discussion [SU2] presentation/project/paper/report [SU6] demonstration of practical skills [SU8] observation of student's independent or team work
	[FIZMEDMU2_U05] has the ability to synthesize methods and ideas from various areas of physics and other natural sciences; is able to notice that distant phenomena are sometimes described by similar models	not applicable	[SU2] presentation/project/paper/report
	[FIZMEDMU2_U06] is able to adapt the knowledge and methodology of physics as well as the experimental and theoretical methods used to related scientific disciplines	not applicable	[SU1] oral statement/conversation/discussion [SU2] presentation/project/paper/report
	[FIZMEDMU2_U09] can work independently and in a team	not applicable	[SU2] presentation/project/paper/report [SU8] observation of student's independent or team work
	[FIZMEDMU2_K01] knows the limitations of his own knowledge and skills; can formulate questions precisely; understands the need for further education of oneself and other people	not applicable	[SK1] oral statement/conversation/discussion [SK2] presentation/project/paper/report
	[FIZMEDMU2_K02] is aware of the decisive role of experiment in the verification of physical theories; is aware of the existence of the scientific method in collecting knowledge	not applicable	[SK1] oral statement/conversation/discussion [SK2] presentation/project/paper/report
	[FIZMEDMU2_K03] can work individually and in a team; is aware of responsibility for jointly performed tasks	not applicable	[SK1] oral statement/conversation/discussion [SK2] presentation/project/paper/report [SK8] observation of student's independent or team work
	[FIZMEDMU2_K04] understands and appreciates the importance of intellectual honesty in one's own and other people's actions; is aware of ethical problems in the context of research integrity	not applicable	[SK1] oral statement/conversation/discussion [SK2] presentation/project/paper/report
	[FIZMEDMU2_K05] understands the need to popularize knowledge in the field of physics, including the latest scientific and technological achievements	not applicable	[SK1] oral statement/conversation/discussion [SK2] presentation/project/paper/report
[FIZMEDMU2_K06] is aware of the risks of obtaining information from unverified sources, including partly the Internet	not applicable	[SK2] presentation/project/paper/report	
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	65.0%	100.0%
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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