University of Gdańsk

Subject card

Subject name and code	Fundamentals of theoretical physics for medical physics I, PG_00090110						
Field of study	Medical Physics						
Date of commencement of studies	October 2024		Academic year of realisation of subject	2025/2026			
Education level	Bachelor's 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	Polish not applicable			
Semester of study	4		ECTS credits	4.0			
Learning profile	academic		Assessment form				
Conducting unit	Faculty of Mathematics, Physics and Informatics -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor		dr Marcin Łobejko				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	30.0	30.0	0.0	0.0	0.0	60
	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	60		0.0	0.0		60
Subject objectives	not applicable						

<table>
<tr><td>Learning outcomes</td><td>
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<tr><th>Course outcome</th><th>Subject outcome</th><th>Method of verification</th></tr>
<tr><td>[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</td><td>not applicable</td><td>[SU3] text preparation/written work</td></tr>
<tr><td>[FIZMEDL3_K01] knows the limitations of his own knowledge and understands the need for further education</td><td>not applicable</td><td>[SK3] text preparation/written work</td></tr>
<tr><td>[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</td><td>not applicable</td><td>[SW4] test/exam - oral or written</td></tr>
<tr><td>[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</td><td>not applicable</td><td>[SW4] test/exam - oral or written</td></tr>
<tr><td>[FIZMEDL3_W10] knows the basic computational methods used in classical mechanics, electrodynamics, quantum mechanics and statistical physics</td><td>not applicable</td><td>[SW4] test/exam - oral or written</td></tr>
<tr><td>[FIZMEDL3_W05] knows and understands the basic laws and principles of non-relativistic and relativistic mechanics</td><td>not applicable</td><td>[SW4] test/exam - oral or written</td></tr>
<tr><td>[FIZMEDL3_U01] can formulate basic physical laws using mathematical formalism</td><td>not applicable</td><td>[SU3] text preparation/written work</td></tr>
<tr><td>[FIZMEDL3_U03] can apply the formalism of classical physics to describe phenomena at the macroscopic level</td><td>not applicable</td><td>[SU3] text preparation/written work</td></tr>
<tr><td>[FIZMEDL3_W06] knows and understands basic electromagnetic phenomena and the laws of electrodynamics formulated in the language of Maxwell's equations</td><td>not applicable</td><td>[SW4] test/exam - oral or written</td></tr>
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<tr><td>Subject contents</td><td>not applicable</td></tr>
<tr><td>Prerequisites and co-requisites</td><td>not applicable</td></tr>
<tr><td>Assessment methods and criteria</td><td>
<table>
<tr><th>Subject passing criteria</th><th>Passing threshold</th><th>Percentage of the final grade</th></tr>
<tr><td>not applicable</td><td>51.0%</td><td>50.0%</td></tr>
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<tr><td>Recommended reading</td><td>
<table>
<tr><td>Basic literature</td><td>not applicable</td></tr>
<tr><td>Supplementary literature</td><td>not applicable</td></tr>
<tr><td>eResources addresses</td><td>Adresy na platformie eNauczanie:</td></tr>
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<tr><td>Example issues/ example questions/ tasks being completed</td><td>not applicable</td></tr>
<tr><td>Work placement</td><td>Not applicable</td></tr>
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