

Subject card

Subject name and code	Faculty Lecture - Mathematics, PG_00182204						
Field of study	Medical Physics						
Date of commencement of studies	October 2025		Academic year of realisation of subject		2026/2027		
Education level	Master'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		
Semester of study	4		ECTS credits		2.0		
Learning profile	academic		Assessment form		credit		
Conducting unit	Faculty of Mathematics, Physics and Informatics -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. Antoni Augustynowicz				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	30.0	0.0	0.0	0.0	0.0	30
	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	30		0.0		20.0	50
Subject objectives	Familiarity with the interconnections and mutual influence of mathematical and physical theories.						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[FIZMEDMU2_K01] Is ready to evaluate himself critically and the teams and organisations in which he participates in the context of his knowledge and skills, as well as the content he receives.		Critically evaluates their own contribution to group work on mathematical problems and accepts constructive criticism from others. Verifies the correctness of their own calculations and methods, questioning their assumptions based on solid arguments. Actively participates in discussions, showing respect for other perspectives and critically assessing scientific content.		[SK3] text preparation/written work		
	[FIZMEDMU2_W02] Knows and understands in depth the issues of mathematics and mathematical methods used in physics and medicine, as well as the relationships between them.		Explains the historical development of concepts from differential and integral calculus and assesses their impact on the evolution of physics. Recognizes the types of differential equations found in physical theories and selects appropriate methods for solving them. Analyzes the relationship between physical models and the mathematical tools used to describe them, demonstrating an in-depth understanding of their mutual dependencies.		[SW3] text preparation/written work		

Subject contents	Selected topics from the history of mathematics and their influence on the development of physics, particularly the evolution of concepts leading to the discovery of differential and integral calculus. Selected topics for differential equations appearing in physical theories.		
Prerequisites and co-requisites	Passing the subject of Basic Mathematical Analysis.		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	test	51.0%	100.0%
Recommended reading	Basic literature	not applicable	
	Supplementary literature	not applicable	
	eResources addresses		
Example issues/ example questions/ tasks being completed	not applicable		
Work placement	Not applicable		

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