

Subject card

Subject name and code	Introduction to chaos theory, PG_00154275						
Field of study	Physics						
Date of commencement of studies	October 2024		Academic year of realisation of subject		2025/2026		
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 not applicable		
Semester of study	4		ECTS credits		5.0		
Learning profile	academic		Assessment form		exam		
Conducting unit	Faculty of Mathematics, Physics and Informatics -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. Adam Rutkowski				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	30.0	0.0	45.0	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		50.0	125
Subject objectives	not applicable						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[FIZMU2_W04] knows the principle of operation of measuring systems and research apparatus specific to the area of physics related to the chosen specialization or knows advanced methods of theoretical and mathematical physics	not applicable	[SW4] test/exam - oral or written [SW2] presentation/project/paper/report
	[FIZMU2_W02] has in-depth knowledge of advanced mathematics and mathematical and computer methods, necessary to solve physical problems of intermediate complexity and advanced in a selected area of physics	not applicable	[SW4] test/exam - oral or written [SW2] presentation/project/paper/report
	[FIZMU2_U07] is able to present the results of research (experimental, theoretical or numerical) in written, oral, multimedia presentation or poster form	not applicable	[SU2] presentation/project/paper/report [SU4] test/exam - oral or written
	[FIZMU2_U01] is able to apply the scientific method in solving physical problems, performing experiments and making inferences	not applicable	[SU2] presentation/project/paper/report [SU4] test/exam - oral or written
	[FIZMU2_W06] has knowledge of current developments in physics, especially within his chosen specialty	not applicable	[SW4] test/exam - oral or written [SW2] presentation/project/paper/report
	[FIZMU2_W05] knows the theoretical foundations of computational methods and computer techniques used to model and simulate physical systems	not applicable	[SW4] test/exam - oral or written [SW2] presentation/project/paper/report
	[FIZMU2_U03] is able to make a critical analysis of the results of measurements, observations or theoretical calculations, together with an assessment of the accuracy of the results	not applicable	[SU2] presentation/project/paper/report [SU4] test/exam - oral or written
	[FIZMU2_W01] has an extended knowledge of general physics and an advanced knowledge of a selected area of physics; knows the history of the development of physics and its importance for the progress of science and natural sciences, world cognition and social development	not applicable	[SW4] test/exam - oral or written [SW2] presentation/project/paper/report
	[FIZMU2_K01] knows the limits of his own knowledge and skills; can formulate questions precisely; understands the need for further education of himself and others	not applicable	[SK2] presentation/project/paper/report [SK4] test/exam - oral or written
Subject contents	[FIZMU2_U09] can work independently and in a team	not applicable	[SU2] presentation/project/paper/report [SU4] test/exam - oral or written
	[FIZMU2_W03] knows advanced experimental, observational and numerical techniques to plan and execute a complex physical experiment or computer simulation	not applicable	[SW4] test/exam - oral or written [SW2] presentation/project/paper/report
Prerequisites and co-requisites	not applicable		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	not applicable	0.0%	5.0%
	not applicable	51.0%	60.0%
	not applicable	51.0%	35.0%
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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