

Subject card

Subject name and code	Essential Numerical Analysis for Physicists, PG_00153888						
Field of study	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 Optional subject group		
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	3		ECTS credits		2.0		
Learning profile	academic		Assessment form				
Conducting unit	Faculty of Mathematics, Physics and Informatics -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor		dr Denis Dobkowski-Rylko				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	0.0	30.0	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		25.0	55
Subject objectives	not applicable						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[FIZL3_W11] knows the basic computational methods used in classical mechanics, electrodynamics, quantum mechanics and statistical physics	not applicable	[SW2] presentation/project/paper/report
	[FIZL3_U02] has the ability to perform measurements of basic physical quantities; can develop, describe and present the results of simple physical experiments and computer simulations; can perform quantitative analyses and formulate qualitative conclusions on this basis; can estimate measurement uncertainties	not applicable	[SU2] presentation/project/paper/report
	[FIZL3_U12] can compile, run, test and document a self-written computer program	not applicable	[SU2] presentation/project/paper/report
	[FIZL3_K02] can precisely formulate problems to deepen understanding of a given topic	not applicable	[SK2] presentation/project/paper/report
	[FIZL3_K01] knows the limitations of his own knowledge and understands the need for further education	not applicable	[SK2] presentation/project/paper/report
	[FIZL3_U11] is able to use basic application software packages for presentation of results and data analysis	not applicable	[SU2] presentation/project/paper/report
	[FIZL3_U16] can independently plan and implement his own learning	not applicable	[SU2] presentation/project/paper/report
	[FIZL3_W12] knows the basics of numerical analysis, knows at a basic level at least one package for symbolic calculations, knows basic application software packages for presentation of results and data analysis; knows the basics of programming and software engineering	not applicable	[SW2] presentation/project/paper/report
	[FIZL3_W04] knows the basic techniques of higher mathematics, including differential and integral calculus of functions of one and many variables, and the basics of algebra to the extent necessary to describe physical phenomena and solve physical problems	not applicable	[SW2] presentation/project/paper/report
	[FIZL3_U08] can use mathematical apparatus and numerical methods to describe and model physical phenomena and processes	not applicable	[SU2] presentation/project/paper/report
	[FIZL3_K08] is able to speak competently on basic problems of physics and its applications	non aplicable	[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	51.0%	50.0%
	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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