

Subject card

Subject name and code	MATHEMATICS 1, PG_00058542								
Field of study	Economic Analytics								
Date of commencement of studies	October 2024		Academic year of realisation of subject			2024/2025			
Education level	first-cycle studies		Subject group			Obligatory subject group in the field of study			
Mode of study	Part-time studies		Mode of delivery			at the university			
Year of study	1		Language of instruction			Polish			
Semester of study	1		ECTS credits			5.0			
Learning profile	general academic profile		Assessment form			exam			
Conducting unit	Mathematics Center -> Vice-Rector for Education								
Name and surname	Subject supervisor		dr Stanisław D						
of lecturer (lecturers)	Teachers								
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Projec	t	Seminar	SUM	
	Number of study hours	16.0	16.0	0.0	0.0		0.0	32	
	E-learning hours included: 0.0								
Learning activity and number of study hours	Learning activity Participation in d classes included plan			Participation in consultation hours		Self-study		SUM	
	Number of study hours	32		10.0		83.0		125	
Subject objectives	Uses the apparatus of linear algebra and mathematical analysis to solve theoretical and practical problems occurring in social sciences								
Learning outcomes	Course outcome		Subject outcome			Method of verification			
	[K6_W02] demonstrates comprehensive preparation in the field of methods, techniques for formulating and solving problems					[SW1] Assessment of factual knowledge [SW2] Assessment of knowledge contained in presentation			
	[K6_U04] formulates logical solutions to complex or unstructured problems		integrates the information obtained from solving complex problems, interpreting them, drawing conclusions and formulating and justifying opinions			[SU2] Assessment of ability to analyse information [SU3] Assessment of ability to use knowledge gained from the subject [SU4] Assessment of ability to use methods and tools			

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inequalities with absolute value, graphs of functions with absolute value. Power functions solving power and polynomial equations and inequalities. Rational functions solving rational equations and inequalities. Exponential function properties and graphs, solving exponential equations and inequalities. Ligarithmic functions properties and graphs, solving logarithmic equations and inequalities. Trigonometric and cyclometric functions properties and graphs, solving trigonometric equations and inequalities. Limits and continuity: Infinite sequences. Fundamental definitions of limit of sequence, convergence and divergence, limit theorems. Applications to solving equations. Differential calculus of functions with one variable and applications of differential calculus of functions with one variable. Higher derivatives and differentials. Monotonicity and local extrems. Convexity, concavity and infloxion points of a function, be Hospitals. Theorem. Asymptotes. Applying differential calculus to studying the properties of functions with one variable integral calculus of functions with one variable and integration formulas the substitution method of integration and integration by parts. Perequisites Assessment methods and criteria. Assessment methods and criteria. Assessment methods and criteria. Subject passing criteria. Passing threathod. Percentage of the final grade. \$50.0%. \$20.0%. \$4.00%. Activity \$50.0%. \$20.0%. \$4.00%. Activity \$50.0%. \$20.0%. \$4.00%. Activity \$50.0%. \$8.00%. \$8.00%. \$8.00%. \$8.00%. \$8.00%. \$9.00%	Subject contents	Functions of one variable and their properties: The absolute value function definition, solving equations and						
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