

## Subject card

Subject name and code	Mathematics I, PG_00053384						
Field of study	Chemical Business						
Date of commencement of studies	October 2024	Academic year of realisation of subject			2024/2025		
Education level	undergraduate 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	1	Language of instruction			Polish		
Semester of study	1	ECTS credits			2.0		
Learning profile	academic	Assessment form					
Conducting unit	Faculty of Mathematics, Physics and Informatics						
Name and surname of lecturer (lecturers)	Subject supervisor		dr Nikodem Mrozek				
	Teachers		dr Nikodem Mrozek				
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	5.0		15.0	50	
Subject objectives	Introduction of students to basic mathematical tools.						
Learning outcomes	Course outcome	Subject outcome			Method of verification		
	[BCHINŻ_W03] Describes the techniques of higher mathematics and IT tools necessary to describe and model chemical phenomena and technological processes.	classifies basic elementary functions and lists their properties; lists the basic formulas of differential and integral calculus and applies them to solve tasks; uses differential and integral calculus to study the properties of functions of one variable; lists the basic formulas of matrix calculus and applies them to solving tasks			[SW4] test/exam - oral or written		
	[BCHINŻ_W02] Enumerates basic laws and theories in chemistry, physics and mathematics necessary to formulate and solve simple engineering tasks.	classifies basic elementary functions and lists their properties; lists the basic formulas of differential and integral calculus and applies them to solve tasks; uses differential and integral calculus to study the properties of functions of one variable; lists the basic formulas of matrix calculus and applies them to solving tasks			[SW4] test/exam - oral or written		

Subject contents	<ul style="list-style-type: none"> <li>- Basic concepts and elementary functions, finding zeros.</li> <li>- The concept of a sequence and its limit, the limit and continuity of functions.</li> <li>- Derivative and integral of a function of one variable with selected applications.</li> <li>- Operations on matrices and vectors, determinant of a matrix, solving systems of linear equations.</li> <li>- Complex numbers.</li> </ul>		
Prerequisites and co-requisites	Knowledge of high school level mathematics.		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Written exam	50.0%	100.0%
Recommended reading	Basic literature	NA	
	Supplementary literature	NA	
	eResources addresses	Adresy na platformie eNauczanie:	
Example issues/ example questions/ tasks being completed			
Work placement	Not applicable		

Document generated electronically. Does not require a seal or signature.