University of Gdańsk

Subject card

Subject name and code	Mathematics, PG_00053410		
Field of study	Chemistry		
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	5.0
Learning profile	academic	Assessment form	
Conducting unit	Faculty of Mathematics, Physics and Informatics		
Name and surname of lecturer (lecturers)	Subject supervisor	dr Nikodem Mrożek	
	Teachers	dr Adrian Karpowicz Leonard Sikorski dr Danuta Jaruszewska-Walczak dr Michał Banacki dr Szymon Myga dr Bartosz Makuracki dr Nikodem Mrożek Jakub Szmelter	

Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	60.0	0.0	0.0	0.0	60
	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	60	10.0	55.0	125

Subject objectives	Introduction of students to basic mathematical tools.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[CHEML3_W01] Enumerates basic laws and theories in chemistry, physics, mathematics and biology.	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 and multivariable lists the basic formulas of matrix calculus and applies them to solving tasks	[SW4] test/exam - oral or written
[CHEML3_W08] Demonstrates knowledge of basic computational methods to solve problems in chemistry, physics, mathematics.	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 and multivariable lists the basic formulas of matrix calculus and applies them to solving tasks	[SW4] test/exam - oral or written
[CHEML3_W06] Chooses higher mathematics techniques to the extent necessary to understand and describe the physical processes important for understanding chemistry.	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 and multivariable lists the basic formulas of matrix calculus and applies them to solving tasks	[SW4] test/exam - oral or written
[CHEML3_U09] Is able to learn independently.	He can learn independently.	[SU4] test/exam - oral or written [SU8] observation of student's independent or team work

Subject contents

- Basic concepts and elementary functions, finding zeros.

- The concept of a sequence and its limit, the limit and continuity of functions.

- Derivative and integral of a function of one variable with selected applications.

- Operations on matrices and vectors, determinant of a matrix, solving systems of linear equations.

- Complex numbers.

Prerequisites and co-requisites

Knowledge of high school level mathematics.

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
Activity	0.0%	10.0%
Test	50.0%	90.0%

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