COURSE GUIDE MATHEMATICAL ANALYSIS– short form

Academic year 2024-2025

Course name[1]	**Mathematical Analysis**					Course code		1IMAT01DF	
Course type[2]	DF	Category[3]	DI	Year of study	1	Semester	1	Number of credit points	5

Faculty	Material Science and Engineering	Number of teaching and learning hours[4]					
Field	Material Engineering	Total	L	T	LB	P	IS
Specialization	Material Science	125	28	28	-	-	69

Pre-requisites from the curriculum[5]		
	Compulsory	Algebra, Mathematical Analysis, high-school level (M2 Mathematics)
	Recommended	-

General objective [6]	The main objective is that the student becomes familiar with mathematical thinking and is able to solve practical problems
Specific objectives[7]	• This course is intended to introduce the students of engineering to those areas of mathematical analysis, which will be used in technical specific fields of study.
Course description[8]	I. Sequences and series of real numbers. II. Real functions of one real variable. Limit, continuity, differentiability, Taylor formula. III. Real and vectorial functions of several variables. Limit, continuity, partial derivatives, differentiability, Taylor formula, extrema. IV. Integral calculus. Indefinite and definite integrals, line integrals, multiple integrals.

Assessment		Schedule[9]	Percentage of the final grade (minimum grade)[10]
A. Final assessment form[11]	Class tests along the semester		
	Home works		
	Other activities		
	Examination procedures and conditions: Exam Test paper, 5 problems, 100% (minim 5)	Session	70 % (minim 5)
B. Seminar	Activity during seminar	Weekly	30 % (minim 5)
C. Laboratory	Activity during laboratory		
D. Project	Activity during project		

Course organizer	Associate professor Ph.D. Daniela Roșu	
Teaching assistants	Associate professor Ph.D. Daniela Roșu	

[1]Course name from the curriculum
[2] DF – fundamental, DID – in the field, DS – specialty, DC – complementary (from the curriculum)
[3] DI – imposed, DO –optional, DL – facultative (from the curriculum)
[4] Points 3.8, 3.5, 3.6a,b,c, 3.7 from the Course guide – extended form (L-lecture, T-tutorial, LB-laboratory works, P-project, IS-individual study)
[5] According to 4.1 – Pre-requisites - from the Course guide – extended form
[6] According to 7.1 from the Course guide – extended form
[7] According to 7.2 from the Course guide – extended form
[8] Short description of the course, according to point 8 from the Course guide – extended form
[9] For continuous assessment: weeks 1 – 14, for final assessment – colloquium: week 14, for final assessment-exam: exam period
[10] A minimum grade might be imposed for some assessment stages