

COURSE GUIDE MATHEMATICAL ANALYSIS– short form
Academic year 2017-2018

Course name ¹	Mathematical Analysis					Course code	1SM01DF		
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	Materials Engineering				Total	L	T	LB	P	IS
Specialization	Materials Science				84	28	28	-	-	28

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	<ul style="list-style-type: none"> 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, improper Integrals, line integrals, multiple integrals, Green's formula.

Assessment		Schedule ⁹	Percentage of the final grade (minimum grade) ¹⁰
Continuous assessment	Class tests along the semester	Week 8	30%
	Activity during tutorials/laboratory works/projects/practical work	Weekly	20 %
	Assignments	-	
Final assessment	Final assessment form ¹¹	Exam	50 %
	Examination procedures and conditions: Test paper, 5 problems		

Course organizer	Lecturer Ph.D. Daniela Roşu
Teaching assistants	Lecturer Ph.D. Daniela Roşu

¹Course 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

¹¹ Exam or colloquium