

COURSE GUIDE – short form

Academic year 2024 - 2025

Course name ¹	Simulation and experiment in the analysis of stresses and strains (2)					Course code		MATAE IA 201	
Course type ²	DS	Category ³	DI	Year of study	II	Semester	3	Number of credit points	5

Faculty	Faculty of Materials Science and Engineering				Number of teaching and learning hours ⁴					
Field	Materials engineering				Total	L	T	LB	P	IS
Specialization	MATAE				125	14		14		97

Pre-requisites from the curriculum ⁵	Compulsory	Simulation and experiment in the analysis of stresses and strains (1)
	Recommended	

General objective ⁶	Presenting, through finite element analysis, the mechanical characteristics measuring technique by tensiometry.
Specific objectives ⁷	<ul style="list-style-type: none"> • Acquiring the skills in order to determine mechanical values within forming processes on advanced materials.
Course description ⁸	General methods of the finite element analysis (equilibrium model, strain and stress evaluation, etc.). Measuring mechanical characteristics by mean of tensometry.

Assesment			Schedule ⁹	Percentage in the final grade (minimum grade) ¹⁰
A. Final assessment form ¹¹ :	Class tests along the semester	20%	W6;W1 2	50% (minimum 5)
	Home works	%		
	Other activities	%		
Exam	Examination procedures and conditions: 1. Theoretical close ended questions, orally: 30%; 2. Solving a simulation problem, practically: 70%.	80% (minimum 5)	Exam period	
B. Seminar	Activity during seminar			% (minimum 5)
C. Laboratory	Attvity during laboratory			50% (minimum 5)
D. Project	Activity during project			% (minimum 5)

Course organizer	Professor Habil Phd. Eng. Stefan Lucian TOMA
Teaching assistants	Lecturer PhD. Eng. Alin Marian CAZAC

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