

COURSE GUIDE – short form

Academic year 2024-2025

Course name ¹	Thermal analysis advanced techniques (2)					Course code	MATAE IA 203		
Course type ²	DID	Category ³	DA	Year of study	2	Semester	3	Number of credit points	4

Faculty	Materials Science and Engineering	Number of teaching and learning hours ⁴						
Field	Materials Engineering	Total	L	T	LB	P	IS	
Specialization	Advanced materials and experimental analysis techniques	100	28		14			58

Pre-requisites from the curriculum ⁵	Compulsory	It is not necessary
	Recommended	Thermal analysis advanced techniques (1)

General objective ⁶	Learning the main practical and theoretical techniques of advanced thermal analysis using concepts, theories, and methods of the analysis. Assimilation of basic knowledge concerning to material characteristics that can be evaluated using thermal analysis techniques.
Specific objectives ⁷	Knowledge transmission, the use of thermal analysis techniques for materials characterization, evaluation and interpretation of results.
Course description ⁸	<ol style="list-style-type: none"> 1. Thermomechanical analysis 2. Thermodilatometry 3. Dynamic mechanical analysis 4. Thermogravimetry 5. Thermomagnetometry 6. Thermooptometry 7. Simultaneous Thermal Analysis 8. Other methods of thermal analysis 9. Nano-thermal analysis

Assesment		Schedule ⁹	Percentage in the final grade (minimum grade) ¹⁰
A. Final assessment form ¹¹ :	Class tests along the semester		60% (minimum 5)
	Home works		
	Other activities		
	Examination procedures and conditions: 1. Theoretical question; open questions of course, working conditions: oral; percent of the final grade: 50% 2. Theoretical question; open questions of course, working conditions: oral; percent of the final grade: 50%	100% (minimum grade 5)	
B. Seminar	Activity during seminar		
C. Laboratory	Activity during laboratory		40% (minimum 5)
D. Project	Activity during project		

Course organizer	Assist. prof. Ph.D. eng. Nicoleta Monica LOHAN
Teaching assistants	Lect. Ph.D. Eng, Elena MATCOVSCHI

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