

# COURSE GUIDE – short form

Academic year 2024-2025

Course name <sup>1</sup>	<b>Thermal analysis advanced techniques (1)</b>					Course code	MATAE IA 110		
Course type <sup>2</sup>	DI	Category <sup>3</sup>	DA	Year of study	I	Semester	II	Number of credit points	4

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

Pre-requisites from the curriculum <sup>5</sup>	Compulsory	It is not necessary
	Recommended	It is not necessary

General objective <sup>6</sup>	Description of the principles and methods of thermal analysis; highlighting the use of technical equipment for determining solid state transformations as a function on temperature. Using acquired knowledge to evaluate and optimal solving of the technical problems.
Specific objectives <sup>7</sup>	Conveying of theoretical and practical knowledge necessary to use specific equipment, necessary to future specialists to adapt to the labour market dynamics.
Course description <sup>8</sup>	<ol style="list-style-type: none"> <li>1. Introduction to thermal analysis</li> <li>2. Characterization of measuring instruments</li> <li>3. Characterization, interpretation and presentation of results</li> <li>4. Differential thermal analysis</li> <li>5. Differential scanning calorimetry</li> </ol>

Assesment		Schedule <sup>9</sup>	Percentage in the final grade (minimum grade) <sup>10</sup>
A. Final assessment form <sup>11</sup> :	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 5)	
B. Seminar	Activity during seminar		
C. Laboratory	Acttivity during laboratory		40%(minimum 5)
D. Project	Activity during project		

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

---

<sup>1</sup>Course name from the curriculum

<sup>2</sup> DF – fundamental, DID – in the field, DS – specialty, DC – complementary (from the curriculum)

<sup>3</sup> DI – imposed, DO –optional, DL – facultative (from the curriculum)

<sup>4</sup> 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)

<sup>5</sup> According to 4.1 – Pre-requisites - from the Course guide – extended form

<sup>6</sup> According to 7.1 from the Course guide – extended form

<sup>7</sup> According to 7.2 from the Course guide – extended form

<sup>8</sup> Short description of the course, according to point 8 from the Course guide – extended form

<sup>9</sup> For continuous assessment: weeks 1 – 14, for final assessment – colloquium: week 14, for final assessment-exam: exam period

<sup>10</sup> A minimum grade might be imposed for some assessment stages

<sup>11</sup> Exam or colloquium