C O U R S E G U I D E – s h o r t f o r m

Academic year 2024-2025

Course name[1]	**Obtaining New Materials by Phase Transitions**					Course code		MATAE IA 208	
Course type[2]	DS	Category[3]	DI	Year of study	2	Semester	3	Number of credit points	5

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	125	28	14	14	-	69

Pre-requisites from the curriculum[5]	Compulsory	
	Recommended	

General objective [6]	Obtaining new materials by phase transitions in liquid or solid state, structural and properties characterization
Specific objectives[7]	
Course description[8]	1. Transformation of one liquid or gaseous themodynamic phase, form a technical ferrous liquid metallic matrix, into graphite. 2. Transformation of one solid themodynamic phase, form a technical ferrous liquid metallic matrix, into graphite. 3. Obtaining compact graphite within a ferrous metallic matrix 4. Phenomena at the interface between metallic matrix and thermodynamic phase 5. The technology of thermodynamic phase creation within a ferrous metallic matrix

Assesment			Sche-dule[9]	Percentage in the final grade (minimum grade)[10]
A. Final assessment form [11]: Exam	Class tests along the semester	%		70 %
	Home works	%		
	Other activities	%		
	Exam 1. Subject with open questions; tasks: answer to open questions; work conditions: oral examination; percentage:50 %. 2. Subject with open questions; tasks: answer to open questions; work conditions: oral examination; percentage:50 %.	100 % (mini-mum 5)	Exam period	
B. Seminar	Activity during seminar			%
C. Laboratory	Activity during laboratory			30 %
D. Project	Activity during project			%

Course organizer	Prof.univ.dr.ing. Leandru-Gheorghe BUJOREANU	
Teaching assistants	Prof.univ.dr.ing. Leandru-Gheorghe BUJOREANU	

[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
[11] Exam or colloquium