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]	**Nonmetallic Shape Memory Materials**					Course code		MATAE IA 113	
Course type[2]	DS	Category[3]	DO	Year of study	5	Semester	2	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	
	Recommended	

General objective [6]	Presenting the structure, the properties, the main obtainment and processing methods as well as the best known applications of four categories of non-metallic shape memory materials: (1) ceramic, (2) polymeric, (3) composite and (4) hybrids
Specific objectives[7]	• introducing the main processing technologies of these materials; • introducing the most effective and well known applications of non-metallic shape memory materials; • conveying a theoretical background meant to provide the understanding of micro and macroscopic mechanisms that govern the characteristic phenomena of non-metallic shape memory materials.
Course description[8]	General characterization of non-metallic shape memory materials, shape memory alloys, ceramics, polymers, composites and hybrids.

Assessment			Sche-dule[9]	Percentage in the final grade (minimum grade)[10]
A. Final assessment form [11]: Exam	Class tests along the semester	%		60 %
	Home works	%		
	Other activities	%		
	Examination procedures and conditions: Probe 1: Grid test with 40 questions, each of them with 4 variants of answer among which only one correct 100%;	100 % (mini-mum 5)	Exam period	
B. Seminar	Activity during seminar			%
C. Laboratory	Activity during laboratory			40 %
D. Project	Activity during project			%

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