

# COURSE GUIDE – short form

Academic year 2024-2025

Course name <sup>1</sup>	MATERIALS FOR SPECIAL APPLICATIONS 2					Course code	4.SM.14.DS-1		
Course type <sup>2</sup>	DS	Category <sup>3</sup>	DO	Year of study	IV	Semester	7	Number of credit points	3

Faculty	Materials Science and Engineering	Number of teaching and learning hours <sup>4</sup>					
Field	Materials engineering	Total	L	T	LB	P	IS
Specialization	Materials science	75	28	-	14	-	33

Pre-requisites from the curriculum <sup>5</sup>	Compulsory	not necessary
	Recommended	Physical Metallurgy

General objective <sup>6</sup>	Understanding the science of shape memory materials properties and the technology of obtaining them.
Specific objectives <sup>7</sup>	<ul style="list-style-type: none"> <li>Learning theoretical knowledge related to physical and chemical phenomena, based on intelligent materials properties.</li> <li>Achieving the ability to research and analyze intelligent materials using a variety of research methods.</li> </ul>
Course description <sup>8</sup>	Phase transformations in shape memory alloys Characteristics and properties of shape memory alloys Obtaining shape memory alloys Applications of shape memory alloys

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	%		50%
	Home works	%		
	Other activities	%		
	Examination procedures and conditions: Probe 1: Oral Examination. The Exam Question papers contains two questions, with a closed answer, equal weight.	100%		
B. Seminar	Activity during seminar			0%
C. Laboratory	Activity during laboratory			50 %
D. Project	Activity during project			0%

Course organizer	Prof. dr. eng. Sergiu STANCIU
Teaching assistants	Prof. dr. eng. Sergiu STANCIU

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<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