

# COURSE GUIDE – short form

Academic year 2024-2025

Course name <sup>1</sup>	PROPERTIES of MATERIALS 1					Course code	4.SM.02.DD		
Course type <sup>2</sup>	DS	Category <sup>3</sup>	DI	Year of study	4	Semester	1	Number of credit points	4

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	100	28	28	-	-	44	

Pre-requisites from the curriculum <sup>5</sup>	Compulsory	-
	Recommended	Physical Metallurgy, Metallic Materials Science and Engineering, Welding Metallurgy, Materials Strength, Machine Elements, Mechanics, Mathematical Analysis, Technical Drawing.

General objective <sup>6</sup>	Evaluation and optimal solution of technical problems related to materials characterisation by applying concepts, theories and experimental methods.
Specific objectives <sup>7</sup>	Knowing the properties of materials, focusing on metallic materials.
Course description <sup>8</sup>	Clasification of properties; Elements of structural theory of materials properties; Physical properties; (density, electrical, thermal, magnetic properties, supraconductibility, combined physical effects); chemical properties (electrode potential, corrosion mechanisms and protection against corrosion).

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% (minimum 5)
	Home works	%		
	Other activities	%		
	Examination procedures and conditions: Probe 1: closed question; oral examination; 50% Probe 2: closed question; oral examination; 50%.	100% (minimum 5)	Exam period	
B. Seminar	Activity during seminar – open questions - oral			50% (minimum 5)
C. Laboratory				

Course organizer	Assoc. Prof. Ph.D. Eng. Gheorghe BĂDĂRĂU
Teaching assistants	Teach.Assist.Ph.D. Eng. Elena Ionela CHERECHEȘ

<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)

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<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