

COURSE GUIDE – short form

Academic year 2024-2025

Course name ¹	MATERIALS TECHNOLOGY 1				Course code	2.EPI.20.DD-1			
Course type ²	DD	Category ³	DO	Year of study	2	Semester	4	Number of credit points	3

Faculty	Material Science and Engineering	Number of teaching and learning hours ⁴					
Field	Mechanical Engineering	Total	L	T	LB	P	IS
Specialization	Equipment for industrial processes	75	28		14		33

Pre-requisites from the curriculum ⁵	Compulsory	It is not necessary
	Recommended	It is not necessary

General objective ⁶	To introduce students to the main technologies of materials (analysis, synthesis, specific knowledge in materials technology) for the preparation of future specialist in the field of mechanical engineering. Applying concepts and experimental laboratory methods.
Specific objectives ⁷	Knowledge of properties and tests of metallic materials. Knowledge of materials development technologies, material processing by casting, plastic deformation and welding
Course description ⁸	I. Materials used in industry; II. Properties and testing of metallic materials; III. Fundamental elements on elaboration of metallic materials; IV. Fundamental elements on processing of metallic materials by casting. V. Fundamental elements on processing by plastic deformation of metallic materials. VI. Fundamental elements on welding materials processing; VII. Fundamental elements on cutting materials; VIII. Fundamental elements on materials processing by aggregation of powders. IX. Fundamental elements on protection and security work in process materials.

Assesment			Schedule ⁹	Percentage in the final grade (minimum grade) ¹⁰
A. Final assessment form ¹¹ :	Class tests along the semester	%	Exam period	50% (minimum 5)
	Home works	%		
	Other activities	%		
	Examination procedures and conditions: oral exam	100% (minimum 5)		
B. Seminar	Activity during seminar			% (minimum 5)
C. Laboratory	Activity during laboratory			50% (minimum 5)
D. Project	Activity during project			% (minimum 5)

Course organizer	Lecturer EngD. Mihai POPA	
Teaching assistants	Lecturer EngD. Mihai POPA	

¹Course 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

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

¹⁰A minimum grade might be imposed for some assessment stages

¹¹Exam or colloquium