COURSE GUIDE – short form

Academic year 2024-2025

Course name	**Materials science and engineering (1)**					Course code		1ISI06DD	
Course type	DD	Category	DI	Year of study	1	Semester	1	Number of credit points	4

Faculty	Materials Science and Engineering	Number of teaching and learning hours					
Field	Industrial Engineering	Total	L	T	LB	P	IS
Specialization	Industrial safety engineering	100	28		14		58

Pre-requisites from the curriculum		
	Compulsory	
	Recommended	

General objective	Making calculations, demonstrations and applications for solving industrial engineering specific tasks based on knowledge in the field of materials science and engineering and related to existing correlations between composition, structure, properties and uses of metallic materials.
Specific objectives	Recognition of materials using their properties and different methods of investigation. Materials selection depending on the application. Investigation of materials characteristics and properties. Developing skills for elaborating specific reports and scientific articles.
Course description	Introduction. Atomic and molecular materials structure. Material properties. Methods of structural analysis and nondestructive control of metallic materials. Metallic materials processing.

Assessment			Sche-dule	Percentage in the final grade (minimum grade)
A. Final assessment form: Exam	Class tests along the semester	%		70% (minimum 5)
	Home works	%		
	Other activities	%		
	Examination procedures and conditions: 1. Category: theoretical; subject with open questions; conditions: oral; weight in final grade: 20%; 2. Category: theoretical; subject with open questions; conditions: oral; weight in final grade: 20%; 3. Category: theoretical; solving problem; conditions: oral; weight in final grade: 30%; 4. Category: theoretical; solving problem; conditions: oral; weight in final grade: 30%.	100% (minimum 5)	Sesion	
B. Seminar	Activity during seminar			% (minimum 5)
C. Laboratory	Activity during laboratory			30% (minimum 5)
D. Project	Activity during project			% (minimum 5)

Course organizer	Lecturer Ph.D. Eng. Elena MATCOVSCHI	
Teaching assistants	Lecturer Ph.D. Eng. Elena MATCOVSCHI	
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