C O U R S E G U I D E – s h o r t f o r m

Academic year 2018-2019

Course name	**Materials science and engineering (1)**					Course code		1EPI06DD	
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	Mechanical Engineering	Total	L	T	LB	P	IS
Specialization	Equipment for industrial processing	42	28		14		

Pre-requisites from the curriculum	Compulsory	
	Recommended	

General objective	Thorough knowledge of correlations between composition, structure, properties and uses of materials (based on basic knowledge and concepts, theories and specific methods for mechanical engineering) in order to achieve a material rational choice for various industrial and scientific applications, choosing and using a accurate obtaining and processing technology for metallic materials and for correct operation of parts or assemblies service.
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. Some concepts regarding metallic materials processing.

Assessment			Sche-dule	Percentage in the final grade (minimum grade)
A. Final assessment form: Exam	Class tests along the semester	%		50% (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			50% (minimum 5)
D. Project	Activity during project			% (minimum 5)

Course organizer	Associate professor PH.D. eng. Ioan RUSU	
Teaching assistants	Associate professor PH.D. eng. Maria BACIU	
	Lecturer PH.D. eng. Monica Nicoleta LOHAN	