

COURSE GUIDE – short form

Academic year 2017-2018

Course name	Metallic materials science and engineering (2)					Course code		1EPI11DID	
Course type	DID	Category	DI	Year of study	1	Semester	2	Number of credit points	5

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	56	28		28			

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 an 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. Knowledge of materials processing technologies. Choosing processing technology according to the part/material requirements. Developing skills for elaborating specific reports and scientific articles.
Course description	Metallic materials. Ceramic materials. Composite materials. Semiconductors. Smart materials. Notions regarding amorphous materials. Special destination metallic materials. Service behavior of the metallic materials.

Assessment		Schedule	Percentage of the final grade (minimum grade)
Continuous assessment	Class tests along the semester	Week 7	10%
	Activity during tutorials/laboratory works/projects/practical work		40%
	Assignments		-
Final assessment	Final assessment form	Examination	50%
	Examination procedures and conditions: 1. Category: theoretical; subject with open questions; conditions: oral; weight in final grade: 20%; 2. Category: theoretical; solving problem; conditions: oral; weight in final grade: 40%; 3. Category: theoretical; solving problem; conditions: oral; weight in final grade: 40%.		

Course organizer	Associate professor dr.eng. Ioan RUSU
Teaching assistants	Associate professor PH.D. eng. Ioan RUSU Lect. PH.D. eng. Năstăca TIMOFTE Assist. PH.D. eng. Alin CAZAC Assist. PH.D. eng. Elena MIHALACHE