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

Academic year 2017-2018

Course name[1]	**PHYSICAL METALLURGY II**					Course code		3SM01DID	
Course type[2]	DID	Category[3]	DI	Year of study	3	Semester	5	Number of credit points	4

Faculty	Materials Science and Engineering	Number of teaching and learning hours[4]					
Field	Materials engineering	Total	L	T	LB	P	IS
Specialization	Materials Science	96	14		28		54

Pre-requisites from the curriculum[5]	Compulsory	-
	Recommended	-

General objective [6]	Knowledge of metal diffusion phenomena, physical metallurgy and plastics deformation, solid state transformations and the presentation of simple and complex iron alloys and non-ferrous alloys. Associate the knowledge, principles and methods of physical metallurgy and identify and appropriately use the concepts, theories and methods specific to material engineering based on the knowledge of fundamental sciences.
Specific objectives[7]	Student understanding of how the internal structure of materials influences their behavior during diffusion, plastic deformation, etc. Differentiating different types of metallic and non-metallic materials according to their metallographic structure.
Course description[8]	Metals diffusion Physical metallurgy of plastic deformation Transformations in solid state. General Fe-C alloys Alloys Fe-C complex Non-ferrous alloys The influence of processing on structure and properties of metallic materials

Assessment			Schedule[9]	Percentage of the final grade (minimum grade)[10]
	Activity during laboratory works			50% (minimum 5)
Final assessment	Final assessment form[11]	exam	exam period	50% (minimum 5)
	Examination procedures and conditions: Oral exam Subject 1: open theoretical thematic development subject; 50% of the exam grade subject 2: open theoretical thematic development subject; 50% of the exam grade;			

Course organizer	Assoc. Prof. PhD. Eng. Adrian Alexandru	
Teaching assistants	Assoc. Prof. PhD. Eng. Adrian Alexandru	

[1]Course 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
[9] For continuous assessment: weeks 1 – 14, for final assessment – colloquium: week 14, for final assessment-exam: exam period
[10] A minimum grade might be imposed for some assessment stages
[11] Exam or colloquium