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

Academic year 2024-2025

Course name[1]	**PLASTICITY AND BREAKING THEORY OF MATERIALS (2)**					Discipline code		**3 IPM 06**	
Course type[2]	**DD**	Category[3]	**DI**	Year of study	3	Semester	**6**	Number of credit points	**3**

Faculty	Material Science and Engineering	Number of teaching and learning hours[4]					
Field	Materials Engineering	Total	L	T	LB	P	IS
Specialization	IPM	**75**	**28**	**-**	**14**	**-**	**33**

Pre-requisites from the curriculum[5]	Compulsory	
	Recommended	

General objective [6]	Knowledge of theoretical bases of plastic deformation and breaking of materials.
Specific objectives[7]	Design capacity of metallic materials, the concepts, basic theories and methods, the use of basic knowledge in the design of metallic materials, proper use of standard assessment criteria and methods to assess the quality of the design of metallic materials, creative approach to the activities related to the design metallic materials.
Course description[8]	Processing theory by rolling, forging, die forging, extrusion, drawing and wire drawing, unconventional technologies of processing by plastic deformation; Elements related to the causes of rupture, fracture mechanics, ductile-brittle transition of rupture, breaking strength, methods of solving fracture mechanics problems.

Assessment		Schedule[9]		Percentage of the final grade (minimum grade)[10]
A. Final assessment form [11] exam	Class tests along the semester: 1	20 %	week 8	80 % (minimum 5)
	Home works	%		
	Other activities	%	week	
	Examination procedures and conditions: 1. Subject with closed questions, working conditions written, percent 100 %; 2. -, working conditions -, percent %; 3. -, working conditions -, percent %	80 % (minimum 5)	exam period	
B. Seminar	Activity during seminar			% (minimum 5)
C. Laboratory	Activity during laboratory			20 % (minimum 5)
D. Project	Activity during project			% (minimum 5)
Course organizer	**Professor, Ph.D., Eng. Dorin LUCA**			
Teaching assistants	**Lecturer, Ph.D., Eng. Cătălin-Andrei ȚUGUI**			

[1] Course name from the curriculum
[2] DF – fundamental, DD – 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