

COURSE GUIDE – short form

Academic year 2021-2022

Course name ¹	UNCONVENTIONAL MATERIAL PROCESSING PROCESSES					Codul disciplinei	4 IPM 13		
Course type ²	DS	Category ³	DO	Year of study	4	Semester	8	Number of credit points	5

Faculty	Material Science and Engineering	Number of teaching and learning hours ⁴					
Field	Materials Engineering	Total	L	T	LB	P	IS
Specialization	IPM	125	28	-	42	-	55

Pre-requisites from the curriculum ⁵	Compulsory	Theoretical basis of heat treatments
	Recommended	Metals forging

General objective ⁶	Materials processing to obtain semi / finished parts by plastic deformation and heat treatment combined in different sequences
Specific objectives ⁷	Knowledge, analysis and effective and appropriate use of technology by plastic deformation processing and heat treatment to obtain an optimum mix of properties other than that obtained by conventional heat treatment.
Course description ⁸	Hot plastic deformation of austenite and transformation into ferrite, pearlite, bainite and martensite; thermomechanical treatments with plastic deformation during heat treatment

Assessment		Schedule ⁹		Percentage of the final grade (minimum grade) ¹⁰
A. Final assessment form ¹¹ colloquium	Class tests along the semester	%	week	50 % (minimum 5)
	Home works	%		
	Other activities	%	week	
	Examination procedures and conditions: 1. Subject with open questions, working conditions oral, percent 100 %; 2. -, working conditions -, percent %;	100 % (minimum 5)	week 14	
B. Seminar	Activity during seminar			% (minimum 5)
C. Laboratory	Activity during laboratory			50 % (minimum 5)
D. Project	Activity during project			% (minimum 5)

Course organizer	prof.dr.eng. Radu COMANECI
Teaching assistants	prof.dr.eng. Radu COMANECI

¹Course 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