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]	**UNCONVENTIONAL TECHNOLOGIES FOR PLASTIC DEFORMATION (1)**					Discipline code		SITM IA 102	
Course type[2]	**DA**	Category[3]	**DI**	Year of study	1	Semester	**1**	Number of credit points	**4**

Faculty	Material Science and Engineering	Number of teaching and learning hours[4]					
Field	Mechanical Engineering	Total	L	T	LB	P	IS
Specialization	SITM	**100**	**14**	**-**	**14**	**-**	**72**

Pre-requisites from the curriculum[5]	Compulsory	
	Recommended	

General objective [6]	Developing professional and transversal competences required for the application and proper use of unconventional technologies of plastic deformation.
Specific objectives[7]	Unconventional technologies of plastic deformation with pressure mediums, high speeds, magnetic energy, thermal activation, by electro-hydraulic effect and gas expansion; Unconventional technologies of plastic deformation for advanced materials.
Course description[8]	Deep-drawing with liquid and gaseous medium pressure, hydrostatic extrusion, plastic deformation with explosives, plastic processing by by expanding gases, processing by electromagnetic forming, deep-drawing by heating or cryogenic cooling the workpiece.

Assessment		Schedule[9]		Percentage of the final grade (minimum grade)[10]
A. Final assessment form [11] colloquium	Class tests along the semester	%	week	80 % (minimum 5)
	Home works: 1	20 %	week 13	
	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)	week 14	
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	**Professor, Ph.D., Eng. Dorin LUCA**			

[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