

COURSE GUIDE – short form

Academic year 2024-2025

Course name ¹	ADVANCED WELDING JOINING SYSTEMS AND TECHNIQUES (1)					Course code	SITM IA 113		
Course type ²	DS	Category ³	DO	Year of study	1	Semester	1	Number of credit points	4

Faculty	Materials Science and Engineering	Number of teaching and learning hours ⁴					
Field	Mechanical Engineering	Total	L	T	LB	P	IS
Specialization	Industrial Systems for Modern Technologies	100	14	-	14	-	72

Pre-requisites from the curriculum ⁵	Compulsory	Not the case
	Recommended	Not the case

General objective ⁶	Broadening knowledge specific to the use and design of equipment and technologies hot processing.
Specific objectives ⁷	The skills related to the specific knowledge of the use of the and design of welding equipment and technologies.
Course description ⁸	Chapter 1 - Theoretical considerations regarding weldability 1.1. Weldability of steels – assessment methods 1.2. Basics of welding metallurgy Chapter 2 - Principles for the design of welding equipment 2.1 Functional elements specific to welding equipment 2.2. Aspects of welding equipment mechanics 2.3. Aspects regarding the automation and control of the welding

Assesment			Schedule ⁹	Percentage in the final grade (minimum grade) ¹⁰
A. Final assessment form ¹¹ :	Class tests along the semester	0%		50% (minimum 5)
	Home works	0%		
	Other activities	0%		
	Examination procedures and conditions: Probe 1: closed question; oral examination; 50% Probe 2: closed question; oral examination; 50%.	100% (minimum 5)	Exam period	
C. Laboratory	Activity during laboratory – open and closed questions, demonstration			50% (minimum 5)

Course organizer	Assoc. Prof. Ph.D. Eng. Gheorghe BĂDĂRĂU
Teaching assistants	Assoc. Prof. Ph.D. Eng. Gheorghe BĂDĂRĂU

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