

COURSE GUIDE – short form

Academic year 2024-2025

Course name ¹	Technologies and equipment for foundries					Course code	3.EPI.01.DS			
Course type ²	DS	Category ³	DI	Year of study	III	Semester	5	Number of credit points	5	

Faculty	Materials Science and Engineering				Number of teaching and learning hours ⁴					
Field	(Mechanical Engineering;				Total	L	T	LB	P	IS
Specialization	Equipment for industrial processing				125	42	-	28	28	27

Pre-requisites from the curriculum ⁵	Compulsory	-
	Recommended	-

General objective ⁶	Completing the knowledge assimilated to other disciplines with specific elements regarding the design and use of casting technologies.
Specific objectives ⁷	Obtaining appropriate knowledge and skills in the field of designing technologies for casting parts by casting. Knowing the advantages of obtaining molded parts and the possibilities of using them in the industry.
Course description ⁸	<p>Course</p> <ul style="list-style-type: none"> - Casting of metals and metal alloys - Designing castings - The technological process of obtaining parts by casting - Technology execution cores in mixed forms and moulding - Permanent and semi-permanent forms - Special moulding methodes - Special casting methodes <p>Laboratory</p> <ul style="list-style-type: none"> -Work protection - Collect, prepare and weigh the material to be analyzed - Determination of sand humidity - Determining the leachable component - Granulometric analysis - Executing test specimens - Determination of the permeability - Determination of the mechanical properties of moulding materials - Determination of mechanical strengths of moulding - Hand moulding - Manual skeleton modeling - Performing forms using volatile models - Casting into metallic shapes <p>Project</p> <ul style="list-style-type: none"> -Studio of the cast - Establishment of technological elements in order to draw up the technological drawing -Calculus and construction of the supply and massel network - Casting regime

Assesment			Schedule ⁹	Percentage in the final grade (minimum grade) ¹⁰
A. Final assessment form ¹¹ :	Class tests along the semester	-	-	50%
	Home works	-	-	
	Other activities	-	-	
	Examination procedures and conditions: 1. Exam ticket with two subjects from the course; Oral exam.	50%	Exam period	
B. Seminar	Activity during seminar			-
C. Laboratory	Activity during laboratory			25%
D. Project	Activity during project			25%

Course organizer	Axinte Mihai, Eng.,Ph.D., Associate professor	
Teaching assistants	Axinte Mihai, Eng.,Ph.D., Associate professor	

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