

C O U R S E G U I D E – s h o r t f o r m
Academic year 2021-2022

Course name ¹	Procedee tehnologice în ingineria materialelor I					Course code	3IPM04 DD			
Course type ²	DD	Category ³	DI	Year of study	III	Semester	5	Number of credit points	6	

Faculty	Materials Science and Engineering	Number of teaching and learning hours ⁴					
Field	Materials Engineering	Total	L	T	LB	P	IS
Specialization	Materials Processing Engineering	98	42	-	28		28

Pre-requisites from the curriculum ⁵	Compulsory	
	Recommended	Desen tehnic si infografica 1 si 2, Fizica 1 si 2, Stiinta si ingineria materialelor 1 si 2, Chimie-fizica 1 si 2, Tehnici de analiza si caracterizarea materialelor, Cristalografie si mineralogie, Termotehnica 1 si Metalurgie fizica 1.

General objective ⁶	The formation of the ability of applying of principles and basic methods for solving well defined problems/ situations, typical for the phenomena and physico-chemical, crystallographical, thermodynamical and technological processes occurring at the casting and solidification of liquid metals and alloys in moulds in qualified assistance conditions promoting logical reasoning and applying the values of ethics of engineer profesion in resposable task execution
Specific objectives ⁷	The establishing of of knowledge relations between theoretical subjects studied and professional areas as physics, chemistry, mechanics and the technologies of obtaining and processing by casting of the alloys, focussing on the phenomenology specific to solidification in the mould.
Course description ⁸	The parameters of melting process, alloy flowing, cristallisation, solidification front, solidification directing, cristalline structure of castings, segregation phenomena, solid and gas inclusions, casting defects, alloy-mould heat exchange, contraction in cast alloys, retasure formation.

Assessment		Schedule ⁹	Percentage of the final grade (minimum grade) ¹⁰
Continuous assessment	Class tests along the semester		%
	Activity during aboratory (open question)	continuous	50%
	Assignments		%
Final assessment	Final assessment form ¹¹	exam	50%
	Examination procedures and conditions: 1. Subject with closed questions; tasks: answer to closed questions; percent 50% 2. Subject with closed questions; tasks: answer to closed questions; percent 50%		

Course organizer	Assoc.Prof.Ph.D.Eng. Iulian Ionita
Teaching assistants	Lect.Ph.D.Eng. Raluca maria Florea

¹Course name from the curriculum

²DF – fundamental, DID – in the field, DS – specialty, DC – complementary (from the curriculum)

³DI – imposed, DO – optional, DL – facultative (from the curriculum)

⁴Points 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)

⁵According to 4.1 – Pre-requisites - from the Course guide – extended form

⁶According to 7.1 from the Course guide – extended form

⁷According 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