

COURSE GUIDE – short form

Academic year 2024-2025

Course name ¹	Sintered Materials and Products					Course code	3.SM.12.DS-1			
Course type ²	DS	Category ³	DO	Year of study	3	Semester	5	Number of credit points		4

Faculty	Materials Science and Engineering					Number of teaching and learning hours ⁴					
Field	Materials Engineering					Total	L	T	LB	P	IS
Specialization	Materials Science					100	28	-	14	-	58

Pre-requisites from the curriculum ⁵	Compulsory	-
	Recommended	-

General objective ⁶	Evaluation and optimal solution of technical problems related to materials and products processed by sintering, by applying concepts, theories and experimental methods.
Specific objectives ⁷	Knowledge of the main processes for obtaining metal powders Characterization of the physico-chemical and technological properties of metal powders Knowledge and analysis of manufacturing technologies for metal powder products Analysis of the processing-microstructure-properties relationship in the case of sintered materials and products
Course description ⁸	Metal powder manufacturing processes. Powder characterization properties and methods. Preparatory operations applied to powders. Powder alloying and microstructure. Powder formation and compaction. Sintering. Products obtained by powder metallurgy

Assesment		Schedule ⁹	Percentage in the final grade (minimum grade) ¹⁰
A. Final assessment form ¹¹ :	Class tests along the semester	-	70 % (minimum 5)
	Homework	-	
	Other activities	-	
	Examination procedures and conditions: 1. Subject with open questions; tasks: answer to open questions; working conditions: oral; percent of the final grade 100 % Onsite/online evaluation	100 % (minimum 5)	
B. Seminar	Activity during seminar		-
C. Laboratory	Activity during laboratory		30 % (minimum 5)
D. Project	Activity during project		-

Course organizer	Prof. dr. eng. Romeu Chelariu	
Teaching assistants	Prof. dr. eng. Romeu Chelariu	

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

⁸Short 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