

COURSE GUIDE – short form

Academic year 2024-2025

Course name ¹	Advanced Sintered Materials					Course code		MATAE IA 202		
Course type ²	DA	Category ³	DI	Year of study	2	Semester	3	Number of credit points		5

Faculty	Materials Science and Engineering					Number of teaching and learning hours ⁴					
Field	Materials Engineering					Total	L	T	LB	P	IS
Specialization	Advanced Materials and Experimental Analysis Techniques					125	14	-	14	-	97

Pre-requisites from the curriculum ⁵	Compulsory	-	
	Recommended	-	

General objective ⁶	The knowledge of the sintering process, of the mechanisms that lead to obtaining sintered materials with properties appropriate to the purpose.
Specific objectives ⁷	<ul style="list-style-type: none"> • Processes and mechanisms involved in obtaining advanced sintered materials. • Structural characterization of advanced sintered materials.
Course description ⁸	Thermodynamics and kinetics of the sintering process. Theories and models of densification. Evolution of microstructure. Liquid phase sintering. Aluminum sintered materials. Titanium sintered materials.

Assesment			Schedule ⁹	Percentage in the final grade (minimum grade) ¹⁰
A. Final assessment form ¹¹ :	Class tests along the semester	-		70 % (minimum 5)
	Home works	-		
	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 %	100 % (minimum 5)	14th week	
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

⁹For continuous assessment: weeks 1 – 14, for final assessment – colloquium: week 14, for final assessment-exam: exam period

¹⁰A minimum grade might be imposed for some assessment stages

¹¹Exam or colloquium